



Amendment Notice 1

Licence Number	L4605/1987/11
Licence Holder	Koppers Wood Products Pty Limited
ACN	003947680
File Number	2011/009036
Premises	Koppers Picton Boyanup – Picton Road, PICTON WA 6229 Lot 1 on Diagram 26115, Lot 520 on Plan 301384; and Lot 5054 on Plan 173762
Date of amendment	18/05/2017

Amendment

The Chief Executive Officer (CEO) of the Department of Environment Regulation (DER) has amended the above licence in accordance with section 59 of the *Environmental Protection Act 1986* as set out in this Amendment Notice. This Amendment Notice constitutes written notice of the amendment in accordance with section 59B(9) of the EP Act and follows.

Date signed: 18 May 2017

Caron Goodbourn

A/Manager Licensing

an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

Amendment Notice

This amendment is made pursuant to section 59 of the *Environmental Protection Act 1986* (EP Act) to amend the licence issued under the EP Act for a prescribed premises as set out below. This notice of amendment is given under section 59B(9) of the EP Act.

The following DER Guidance Statements have informed the decision made on this amendment:

- *Guidance Statement: Regulatory Principles* (July 2015)
- *Guidance Statement: Setting Conditions* (October 2015)
- *Guidance Statement: Decision Making* (November 2016)
- *Guidance Statement: Risk Assessment* (November 2016)
- *Guidance Statement: Environmental Siting* (November 2016)

Amendment Description

On 11 October 2016, Koppers Wood Products Pty Limited (the Licence Holder) submitted an application to DER for an amendment to Licence L4605/1987/11 for the Koppers – Picton Timber Treatment Plant. The Licence Holder has applied to make the following changes:

1. Changes to Condition 20 to permit the use of two new stormwater settling sumps in the pole yard for the discharge of uncontaminated stormwater.
2. Establish a new in-line spray treatment facility to treat freshly debarked logs with anti-mould solution to control sap-stain and mould on logs prior to drying.
3. Establish a new light organic solvent preservative (LOSP) chemical timber treatment facility to treat sawn timber.

In addition to the Licence Holder's requested changes, the Delegated Officer considers that the premises boundary requires modification to ensure it only includes areas to which the Licence Holder has legal access.

Background and Proposed Works

Stormwater management

The Licence Holder has established two stormwater settling sumps (SP6 and SP7) on the western and northern perimeter of the pole yard for the collection and discharge of stormwater from the area. The settling sumps have been established at low points on the premises boundary where stormwater from the pole yard naturally drains. Each sump has been constructed with a minimum capacity of 120 kilolitres.

Licence conditions relating to stormwater management in the licence are currently contradictory resulting in the sumps not being authorised to discharge stormwater. Relevant licence conditions are summarised below:

- Condition 3 requires that the Licence Holder diverts uncontaminated stormwater from around the treatment area and treated log stockpile.
- Condition 7 specifies that uncontaminated stormwater runoff is directed to settling basins to remove suspended solids.
- Condition 20 specifies that stormwater can only be discharged from discharge points SP1, SP2 and SP5 which are all located around the treatment area for the collection and treatment of potentially contaminated stormwater.

The Licence Holder has requested changes to the licence to remove the contradiction evident

in the above conditions to ensure that the use of the sumps does not contravene the licence conditions.

The Licence Holder implements a stormwater management plan for the premises based around the separation of potentially contaminated and uncontaminated stormwater. Potentially contaminated stormwater from the timber treatment and fixation area is directed via drainage, kerbing, and gravity to temporary storage for treatment prior to reuse or discharge via sumps SP1, SP2 or SP5, which are authorised discharge location in accordance with Condition 20 of the licence.

The pole yard area of the premises is unpaved and is predominantly used for raw material ageing and debarking. Some storage of treated poles which have completed the fixation process occurs in this area if required. The only potential contaminant source within the pole yard is the proposed storage and use of anti-mould solution at the inline spray facility. A maximum of two 1,000L vessels of the solution will be stored and used within the inline spray facility which will be roofed and fully bunded to prevent the chemical from being released to the environment.

Stormwater from within the pole yard is therefore considered to be uncontaminated apart from sediment. Stormwater from the pole yard is directed via gravity to settlement basin SP6 or SP7 which are designed to contain at least the first flush of stormwater during heavy storm events where sediment content is likely to be highest. It is discharged from SP6 and SP7 either through evaporation, infiltration, or overflow during heavier storm events.

Inline spray facility

The Licence Holder proposes to establish an automated inline spray facility to control the occurrence of sapstain and mould on untreated debarked poles being air dried in the pole yard. Poles will be treated with a solution of anti-mould in a purpose built inline spray unit immediately after debarking. The spray solution is a water based product (>97%) with active ingredients including ethylene glycol (<1.2%), chlorothalonil (<0.5%), copper 8 hydroxyquinolate (<0.2%) and aryl sulphonic acid (<1.6%). The solution will be delivered to site in 1,000L intermediate bulk containers (IBC). Treated poles will be left to dry in the bunded area for 30 minutes following spraying. Once dry, they will be moved into the pole yard for drying/seasoning prior to timber treatment.

The following works and infrastructure have been proposed by the Licence Holder to establish the new inline spray facility:

- Concrete bund approximately 17m x 10m with 100mm high bund walls (17m³ maximum storage volume). The base of the bund will be approximately 150mm thick and a collection sump will be located in one corner.
- A pump will be connected to the collection sump to collect and return any chemical spillage or contained stormwater back to the inline spray unit for use.
- A structure will be built over the bunded area to prevent rain ingress. The structure will have a steel roof, support poles and steel walls 1m from the ground erected along the northern and eastern sides of the concrete bund. The structure will be built outside of the bunded area.
- A fully enclosed inline spray unit will be positioned within the concrete bund. The spray unit will have five computer-controlled nozzles designed to deliver spray at low volume, an air curtain, outfeed decks and a drip tray (Figure 1).

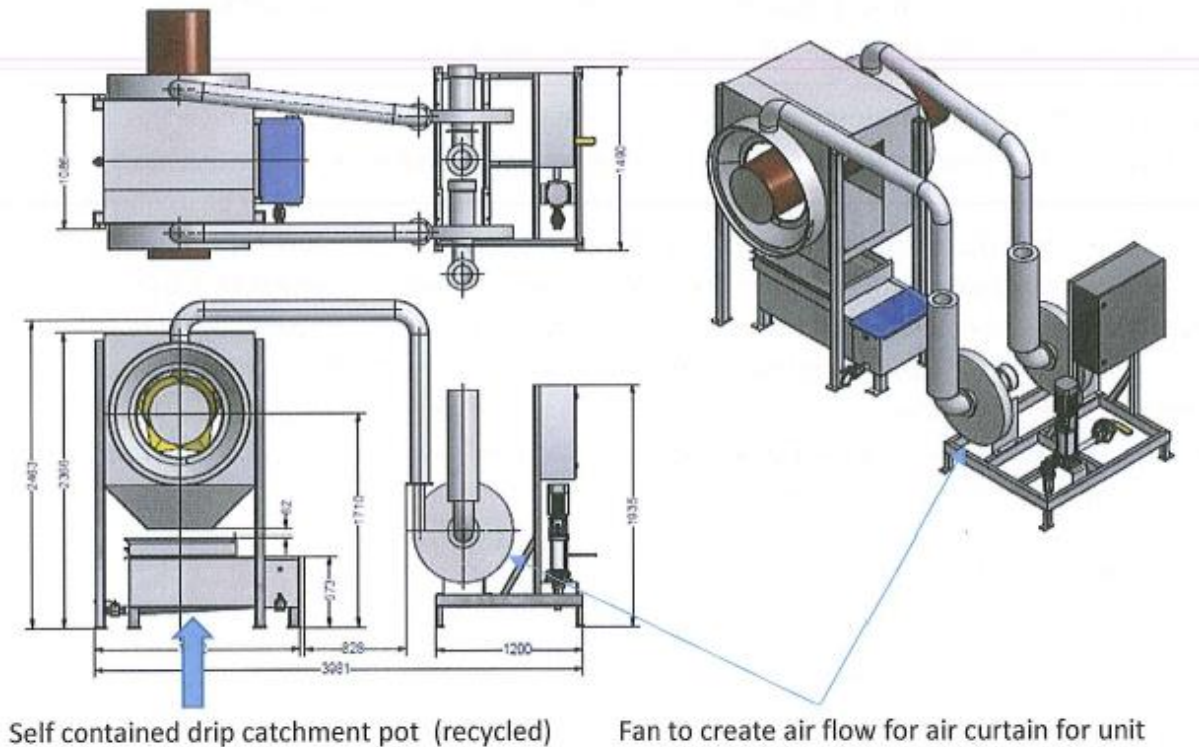


Figure 1: Inline sprayer

Light Organic Solvent Preservative (LOSP) Timber Treatment Facility

The Licence Holder proposes to establish a LOSP timber treatment facility within existing infrastructure at the premises for the treatment of above-ground structural timber. The Licence Holder is currently only able to treat poles and structural timber with Copper Chrome Arsenate (CCA) within the existing treatment facility.

The new treatment facility will use LOSP to treat up to 24,000m³ of above ground structural timber (plantation *Pinus radiata* species) annually. Treatment will be undertaken in an autoclave via vacuum pressure impregnation. Packs of timber will first be seasoned to reduce the moisture content via air drying or in a kiln. Seasoned timber will then be fed into the autoclave on a traverser system. The autoclave door is then closed and sealed, and a vacuum applied. The autoclave is then flooded with LOSP from a working tank until a predetermined pressure is reached. When treatment is finished, the residual LOSP is returned to the work tank for reuse.

The treatment plant will be designed and built to comply with the requirements of Australian Standard AS 2843.1:2006 (*Timber Preservation Plants Part 1 – Timber Preservation Plant Site Design*) and AS 2843.2:2006 (*Timber Preservation Plants Part 2 – Treatment Area Operation*). The plant will be established within an existing shed on the Premises currently used for timber storage. The treatment chemical, LOSP, will comprise three components, Protim Optimum Concentrate (Class 9 Dangerous Good), Protim Resin Liquid Concentrate, and Solvex 2046 HF Kerosene (both C1 Combustible), and a zinc tracer solution. Storage, delivery and mixing of the LOSP make-up chemicals will be via existing storage and delivery infrastructure as described in the following section. The LOSP storage and delivery infrastructure will be capable of receiving and storing both pre-mixed LOSP and the make-up chemicals.

The LOSP treatment plant and chemical supply will be operated via a Programmable Logic Controller (PLC). The Licence Holder has proposed to program the following settings via the PLC to minimise the likelihood of LOSP (or makeup chemicals) being released from the facility:

- Automatic shutdown of chemical supply to the autoclave in the event of any alarm being triggered.
- Level sensors and alarm which cease filling the autoclave at 95% capacity.
- Time limit on autoclave filling in case level sensors fail.
- Program to prevent the work tank from being filled when the autoclave is in use as solvent is returned to the tank (except ~400L uptake by timber).
- Level sensors, high-level alarms and cutoffs on the chemical storage tank and work tank supplying the autoclave.
- Leak detection on the LOSP chemical delivery and transfer pipelines.

The following works and infrastructure have been proposed by the Licence Holder to establish the new LOSP treatment facility:

Existing infrastructure

- Use of an existing steel fabricated shed (currently used for timber storage) to house the LOSP treatment facility inclusive of an autoclave, control room, timber fixation area and LOSP work tank. The building is a shed, approximately 30m by 40m, with walls on the north and south sides and a bitumised floor.
- Use of existing stormwater management infrastructure within the timber storage shed. The shed has elevated bitumen kerbing on the east and west sides and 100mm high concrete kerbing on the north and south sides to prevent stormwater ingress and spillage egress. Water and spillages from within the timber storage shed report to existing collection sumps within the building. Material reporting to the sumps is transported to the CCA treatment facility via a buried pipeline for reuse in the CCA makeup liquid.
- Use of the existing CCA chemical delivery area for delivery of pre-mixed LOSP and Solvex 2046 HF Kerosene. The delivery area is a concrete pad approximately 4.5m by 16m. The pad has side walls and slopes toward a collection pit to allow for containment and collection of spillages and stormwater from the area. Collected material is pumped to the CCA make up water tanks for reuse.
- Use of an existing dangerous goods storage area and tank for storage and mixing of Protim Optimum Concentrate, Protim Resin Liquid Concentrate, zinc tracer and Solvex 2046 HF Kerosene. The dangerous goods storage area comprises two concrete bunds which meet the requirements of AS1940:2004. One of the bunds contains a 30,000L horizontal steel storage tank which meets the requirements of AS1962:2006. The total storage capacity of the bund is >36,000L. The other bund is currently empty and will be used to store up to three 1,000L IBCs of Protim Optimum Concentrate and up to three 1,000L IBCs of Protim Resin Liquid Concentrate as well as smaller containers of zinc tracer solution (maximum of 300L stored). The total storage capacity of the empty bund is >36,000L.

The 30,000L storage tank will be used to store pre-mixed LOSP and for mixing of LOSP when required. When on-site mixing of LOSP is required the base solvent, Solvex 2046 HF Kerosene, will be delivered directly into the storage tank via a buried delivery pipeline from the CCA delivery area. The LOSP storage tank will have level limits along with a high-level alarm and cut off to prevent overfilling. The bunded area has a collection sump to allow for the return of stormwater and/or spilt chemicals to the storage tank.

New infrastructure/works

- Establishment of a concrete bunded area for LOSP treatment and storage. A 140m² concrete bunded area will be established within the existing timber storage shed to house the LOSP plant and LOSP work tank. The bund will be suitably sized to contain

up to 28,000LL of liquid. The maximum amount of LOSP stored within the bunded area will be 25,000L.

- Establishment of the LOSP plant. The package plant will meet the requirements of AS 2843.1:2006 and AS 2843.2:2006 for timber preservation plants. It will be established within the newly constructed concrete bund. A 20,000L LOSP work tank will also be established within bund that will meet the requirements of AS1962:2006. The work tank will have level limits along with a high-level alarm and cut off to prevent overfilling. The LOSP plant will comprise the following:
 - Skid mounted autoclave (constructed from 14mm H11 boilerplate approximately 6m long by 2.1m diameter);
 - Compressor;
 - Ancillary equipment including; a vacuum pump, two transfer pumps, a stripping pump, a hydraulic pump for locking and sealing the autoclave door, and associated pipework. All pumps and pipes will be located within the bunded area.
 - Infeed/outfeed traverser system; and
 - A PLC system to operate/manage the plant.
- Installation of a chemical delivery pipeline between the CCA chemical delivery area and the dangerous goods storage bund for delivery of Solvex 2046 HF Kerosene and pre-mixed LOSP to the chemical storage tank. The pipeline will be constructed of polyethylene, double skinned and will be buried 0.3 to 1m below the ground surface. The pipeline will be fitted with a leak detection system connected to the PLC system.
- Installation of a LOSP delivery pipeline between the dangerous goods storage bund and the work tank in the timber storage shed. The pipeline will be constructed of polyethylene, double skinned and will be buried 0.3 to 1m below the ground surface. The pipeline will be fitted with a leak detection system connected to the PLC system.

Other approvals

The Licence Holder has provided the following information relating to other approvals as outlined in Table 1.

Table 1: Relevant approvals

Legislation	Number	Approval
Planning and Development Act 2005	P05/04 (4 February 2004)	Shire of Dardanup Planning Approval
Planning and Development Act 2005	Assessment 2855	City of Bunbury Planning Approval
Dangerous Goods Safety Act 2004	DGS 005604	Dangerous Goods Licence

Location, environmental siting and potential receptors

The premises are located on the Swan Coastal Plain. Lot 1 and Lot 520 (treatment and administration area) are within the Shire of Dardanup and Lot 5054 (the pole yard) is within the City of Bunbury. The premises are bordered to the south by a rail line and north by the Boyanup-Picton Road. The surrounding area is zoned general industry, regional open space or general farming under the Shire of Dardanup's Town Planning Scheme No. 3, and the City of Bunbury's Town Planning Scheme No. 7. There are a number of rural residences to the north and northeast of the premises.

Table 2 below lists the relevant sensitive land uses in the vicinity of the prescribed premises

which may be receptors relevant to the proposed amendment.

Table 2: Receptors and distance from prescribed premises

Residential and sensitive premises	Distance from Prescribed Premises
Rural Residential Premises	Approximately 200m east-north-east of the LOSP treatment facility.
Rural Residential Premises	Approximately 310m north-west of the LOSP treatment facility.
Rural Residential Premises	Approximately 240m north east of the in-line spray facility and de-barker.
Rural Residential Premises	Approximately 280m north north-west of the in-line spray facility and de-barker.
Aboriginal Site of Significance	The pole yard intersects with the buffer zone for an artefact scatter (ID 5816). The site has been lodged but not registered.
Aboriginal Site of Significance	The buffer for the Ferguson River Mythological site (ID 19796) is north of the Boyanup Picton road, approximately 35m from the premises boundary at points. The site has been lodged but not registered.

Table 3 below lists the relevant environmental receptors in the vicinity of the prescribed premises which may be receptors relevant to the proposed amendment.

Table 3: Environmental receptors and distance from prescribed premise

Environmental receptors	Distance from Prescribed Premises
Ferguson River (major perennial watercourse)	50-100m north of the premises boundary
Geomorphic Wetlands Swan Coastal Plain (multiple use)	The northern premises boundary intersects a Palusplain multiple use geomorphic wetland (14329). Immediately east and south of the premises boundary is a sumpland multiple use geomorphic wetland (1389). Multiple use wetlands have few important ecological attributes and functions remaining.
Geomorphic Wetlands Swan Coastal Plain (conservation use)	A Palusplain conservation use geomorphic wetland (14331) is located approximately 200m north-west of the pole yard in a DPAW reserve. It is characterised as an Environmentally Sensitive Area (ESA).
DPaW Miscellaneous Reserve	Crown Land – timber reserve
Acid sulfate Soils	Low to moderate risk of acid sulfate soils within the premises boundary

The distances to groundwater and water sources are shown in Table 4.

Table 4: Groundwater and water sources

Groundwater and water sources	Distance from Premises	Environmental Value
Preston Area – Ferguson River Surface water management subarea	Whole of the premises is within the catchment area	Ferguson River links up with the Preston River which terminates in the Leschenault Estuary Catchment. The area is included in the Leschenault Estuary water quality improvement plan (DoW 2012)
Groundwater	The Premises is located within the Bunbury Groundwater Area proclaimed under the <i>Rights in Water and Irrigation Act 1914</i> (RIWI Act). Groundwater monitoring results for the premises indicate that the depth to groundwater is typically 11m – 12.7m. Private irrigation bore (61100120) located 170m north east of the premises boundary.	Based on groundwater monitoring results, salinity is typically less than 500 mg/L, and TDS and pH are typically in the range 5.3-6.7. Groundwater has beneficial use for industrial purposes and private irrigation.

Risk Assessment

Table 5 and Table 6 below describe the Risk Events associated with the amendment consistent with the *Guidance Statement: Risk Assessments*. Both tables identify whether the emissions present a material risk to human health or the environment, requiring regulatory controls.

Table 5: Risk assessment for proposed amendments during construction

Risk Event					Consequence rating	Likelihood rating	Risk	Reasoning	
Source/Activities	Potential Emissions	Potential Receptors	Potential Pathway	Potential Adverse Impacts					
Cat 29: Timber preserving	Mobilisation, positioning and construction of infrastructure for the inline spray facility and LOSP treatment facility	Dust	Rural residential premises approximately 240m north-east of the in-line spray facility and 200m east-north-east of the LOSP facility	Air/ wind dispersion	Human health/ amenity impacts	Slight	Rare	Low	<p>The proposed works will be undertaken on an existing prescribed premises located in an area of established industrial and rural properties. Due to zoning in the surrounding area the density of potential receptors is low.</p> <p>The Delegated Officer considers dust and noise emissions from the proposed construction works to be consistent with existing operations and are unlikely to noticeably increase as a result of construction works. The distance to human receptors is considered to be too great for health/amenity impacts to occur.</p> <p>The EP Noise Regulations apply to noise emissions.</p>
		Noise			Amenity impact				

Table 6: Risk assessment for proposed amendments during operation

Risk Event					Consequence rating	Likelihood rating	Risk	Reasoning
Source/Activities	Potential Emissions	Potential Receptors	Potential Pathway	Potential Adverse Impacts				
<p>Category 29: Timber preserving</p> <p>Delivery, storage and handling of chemicals for operation of the LOSP treatment facility</p> <p>Protim Optimum Concentrate (Class 9 Dangerous Good), Protim Resin Liquid Concentrate and Solvex 2046 HF Kerosene (C1 Combustibles)</p>	<p>Chemical due to spillage, leakage or containment failure</p>	<p>Groundwater - depth to groundwater is typically 11-12.7mBGL.</p> <p>Surface water – the Ferguson River traverses along the northern premises boundary at a distance of 50 to 100m.</p>	<p>Release/spills directly to land</p> <p>Direct infiltration through soils to groundwater.</p> <p>Overland or subsurface flow to surface water (river)</p>	<p>Potential contamination of soils, surface water, and groundwater with chemicals affecting ecosystem health and soil, groundwater and surface water quality.</p> <p>Death or adverse effects on terrestrial organisms</p>	Moderate	Unlikely	Medium	<p>The active ingredients in Protim Concentrate are Permethrin (3.2g/L), Propiconazole (4.5g/L) and Tebuconazole (4.5g/L). These are readily degraded by microbial activity therefore are unlikely to reach groundwater or have a long term impact on soil quality. Solvex Kerosene however is a persistent contaminant in soil and groundwater. Protim Optimum Concentrate and Solvex Kerosene are also both classified as being highly toxic to aquatic organisms and can have long-term adverse effects in an aquatic environment.</p> <p>Due to the depth to groundwater at the site, chemical emissions are more likely to impact on surface water environments.</p> <p>LOSP make up chemicals will be delivered either in 1,000L IBCs (Protim Concentrates) directly to the existing dangerous goods storage area or by bulk tanker (Solvex Kerosene and pre-mixed LOSP) to the existing 30,000L storage tank within the area. Delivery trucks for Solvex Kerosene and pre-mixed LOSP will park on the existing CCA delivery pad and deliver the product via an underground pipeline to the storage tank. The pipeline will be a polyethylene, double skinned line with leak detection, buried at a depth of 0.3m to 1m. A second</p>

									<p>underground pipeline, meeting the same control requirements, will be established between the dangerous goods storage bund and the LOSP work tank to supply LOSP to the treatment facility.</p> <p>A maximum of six IBCs (6,000L) of Protim concentrates will be stored within the dangerous goods storage area. The concentrates and zinc tracer will be pumped into the adjacent 30,000L storage tank and blended with Solvex Kerosene to make up the LOSP when pre-mixed product is not available. The storage tank will have level limits, high-level alarms and cut-offs to prevent overfilling occurring. Isolation locks will also be fitted to the tank to prevent access when it is unattended.</p> <p>The Delegated Officer considers that the dangerous goods storage area has been appropriately designed to contain the volume and type of chemicals being stored, and that the storage tank has appropriate controls in the form of alarms, level limits and cut-offs to prevent chemical release occurring. The Delegated Officer also considers that the delivery pipelines have sufficient controls in place to minimise the likelihood of a significant release during chemical delivery.</p> <p>The Delegated Officer has reviewed existing regulatory controls within the licence and considers that additional controls proposed by the Licence Holder are required to mitigate the risk of chemical release.</p>
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	Operation of the LOSP treatment facility (autoclave)	Noise	Rural residential premises approximately 240m north-east of the in-line spray facility and 200m east-north-east of the LOSP facility	Air/ wind dispersion	Human health/ amenity impacts	Slight	Rare	Low	<p>The treatment facility is within an existing prescribed premises located in an area of established industrial and rural properties. Due to zoning in the surrounding area the density of potential receptors is low.</p> <p>The most significant noise sources within the facility are the vacuum and liquid transfer pump systems and forklift noise during loading / unloading of the autoclave. The noise level expected if both pumps are in operation is 64dB at a distance of 5 metres from the plant. Based on this it is expected that noise emissions from the treatment facility would not be discernable from other plant noise 50m from the plant.</p> <p>The EP Noise Regulations apply to noise emissions.</p>
		Odour			Amenity impact	Slight	Rare	Low	There is no discernable odour from timber treatment via an autoclave as the treatment process occurs under a vacuum and residual LOSP is returned to the work tank following the completion of a treatment cycle.
		Chemical due to spillage, leakage or containment failure	<p>Groundwater - depth to groundwater is typically 11-12.7mBGL.</p> <p>Surface water – the Ferguson River traverses along the northern premises</p>	<p>Release/spills directly to land</p> <p>Direct infiltration through soils to groundwater.</p> <p>Overland or subsurface</p>	Potential contamination of soils, surface water, and groundwater with chemicals affecting ecosystem health and soil,	Moderate	Unlikely	Medium	LOSP will be stored in a 20,000L horizontal steel work tank located in the new concrete LOSP treatment facility bund within the timber storage shed. LOSP will be transferred directly from the work tank into the autoclave for treatment of timber and residual remaining in the autoclave after treatment will be returned to the work tank.

			boundary at a distance of 50 to 100m.	flow to surface water (river)	groundwater and surface water quality. Death or adverse effects on terrestrial organisms				<p>The autoclave will be located within the LOSP treatment facility bund. All collected spillages/releases within the bund will be returned to the work tank for reuse.</p> <p>The autoclave will be operated and managed via a PCL system which will include settings to prevent chemical release.</p> <p>The Delegated Officer has reviewed current regulatory controls within the licence and considers that additional controls are required to mitigate the risk of chemical release.</p>
	Contaminated stormwater	<p>Groundwater - depth to groundwater is typically 11-12.7mBGL.</p> <p>Surface water – the Ferguson River traverses along the northern premises boundary at a distance of 50 to 100m.</p>	<p>Overland or subsurface flow to surface water (river)</p> <p>Direct infiltration through soils to groundwater</p>	<p>Potential contamination of soils and surface water affecting ecosystem health and soil, and surface water quality.</p> <p>Death or adverse effects on terrestrial organisms</p>	Slight	Unlikely	Low	<p>Stormwater on the premises is separated into potentially contaminated and non-contaminated streams in accordance with the Licence Holder's Stormwater Management Plan. In accordance with the plan, potentially contaminated stormwater runoff is directed to stormwater drains or collection sumps then to storage facilities for reuse as process water for the CCA plant. Excess water is discharged via authorised discharge points.</p> <p>The Licence Holder proposes to house the treatment facility in an existing building (timber storage shed). The building is roofed and enclosed on two sides to minimise the volume of stormwater entering and coming in contact with LOSP contaminants. Uncontaminated stormwater falling on the building will be collected and directed to the existing freshwater storage tanks on the premises to be used as process water. Contaminated water from</p>	

									<p>within the building will be directed to a collection sump connected to the premises contaminated water management system.</p> <p>The Delegated Officer has reviewed the Licence Holder's proposed controls and existing regulatory controls on the licence relating to separation, collection and monitoring of stormwater (conditions 3-7) and is satisfied that they are sufficient. An additional monitoring parameter (hydrocarbons) will be included in the monitoring suite in Table 1 for surface water sampling points to detect the hydrocarbon-based solvent in the LOSP.</p>
		<p>Waste associated with contaminated sludges from the treatment facility and surrounds</p>	<p>Groundwater - depth to groundwater is typically 11-12.7mBGL.</p> <p>Surface water – the Ferguson River traverses along the northern premises boundary at a distance of 50 to 100m.</p>	<p>Overland or sub-surface flow via stormwater to surface water (river)</p> <p>Direct infiltration through soils to groundwater</p>	<p>Potential contamination of soils.</p>	<p>Slight</p>	<p>Unlikely</p>	<p>Low</p>	<p>Small quantities of LOSP contaminated waste will be generated from the treatment facility. The waste material will predominantly comprise contaminated dust and sawdust which is collected from the autoclave and banded area surrounding it. The Licence Holder has suggested that no more than four 200L drums of LOSP contaminated sludges will be produced per annum. The wastes will be stored in labelled drums within a covered banded area.</p> <p>Collected wastes will be analysed to determine contaminant levels and will be disposed of by a licensed waste disposal company to landfill or other approved waste disposal site dependant on contaminant levels.</p> <p>The Delegated Officer has reviewed current regulatory controls within the licence and considers that existing conditions relating to waste storage</p>

									and disposal (conditions 16-20) and the general provisions of the <i>Environmental Protection Act 1986</i> will be sufficient to manage the risk associated with management of contaminated sludges.
	Curing of LOSP treated timber	Odour	Rural residential premises approximately 240m north-east of the in-line spray facility and 200m east-north-east of the LOSP facility	Air/wind dispersion	Amenity impact	Slight	Rare	Low	There is likely to be minor odour emissions while solvent is evaporating. However, the Delegated Officer considers that the separation distance to potential receptors is sufficient that odour would not be detectable.
		Chemical due to dripping during product drying	Groundwater - depth to groundwater is typically 11-12.7mBGL. Surface water – the Ferguson River is traverses along the northern premises boundary at a distance of 50 to 100m.	Direct infiltration through soils to groundwater.	Potential contamination of soils with chemicals affecting soil, quality.	Minor	Rare	Low	Treated timber requires curing time after treatment for the chemicals to set. A vacuum is applied at the end of the treatment cycle to remove excess preservative to prevent dripping. If excess dripping is observed it indicates a problem with the treatment process. The autoclave traverser system, which unloads timber from the autoclave, will be situated within the LOSP treatment facility bund to contain any dripping which could potentially occur from treated timber. The bunded area has a sump to collect any drips. All collected spillages/releases within the bund will be returned to the work tank for reuse. Following unloading of the treated material from the autoclave the Licence Holder has proposed to undertake timber curing undercover within the timber storage shed for a minimum of 24 hours until it is drip free. All residual chemical,

									<p>washwater or stormwater from the treatment shed reports to a collection sump connected to the premises contaminated water management system. Cured timber will either be kept in the timber storage shed or will be transferred to another storage area to await dispatch. The Delegated Officer considers the method proposed by the Licence Holder for timber curing to be adequate to prevent LOSP from timber curing causing an adverse impact on potential receptors.</p> <p>The Delegated Officer has reviewed current regulatory controls within the Licence and considers that additional Licence Holder proposed controls are required in the licence to mitigate the risk of chemical release during timber curing.</p>
		Contaminated stormwater		<p>Overland or subsurface flow to surface water (river)</p> <p>Direct infiltration through soils to groundwater</p>	<p>Potential contamination of soils and surface water affecting ecosystem health and soil, and surface water quality.</p>	Minor	Rare	Low	<p>During the timber curing period, any water coming into contact with the treated timber can accumulate contaminants. Treated timber should therefore be kept separate from stormwater until the treatment chemical is fixed.</p> <p>The following Licence Holder controls have been proposed to prevent contamination of stormwater due to timber curing:</p> <ul style="list-style-type: none"> - Timber drying will be undertaken undercover (in the timber storage shed). - All stormwater from the drying area will be directed to a collection sump connected to the premises contaminated water

									management system. The Delegated Officer considers the existing conditions on the licence relating to separation, collection and monitoring of stormwater (conditions 3-7) are sufficient.
Treatment of debarked poles for mould and sapstain via an automated inline spray system	Chemical due to spillage, leakage, containment failure, dripping or overspray	Groundwater - depth to groundwater is typically 11-12.7mBGL. Surface water – the Ferguson River is traverses along the northern premises boundary at a distance of 50 to 100m.	Release/spills directly to land Direct infiltration through soils to groundwater. Overland or subsurface flow to surface water (river)	Potential contamination of soils, surface water, and groundwater with chemicals affecting ecosystem health and soil, groundwater and surface water quality.	Slight	Rare	Low	Debarked poles will be treated with an anti-mould solution via an inline spray unit located within a concrete bunded structure which has a roofed structure ovetop. The anti-mould solution will be stored in 1,000L IBCs within the inline spray system bund (no more than two IBCs in storage at any time, one in use and one spare). The Delegated Officer considers that the design of the automated inline spray system, the low volume of chemical being used/stored, and the separation distance to potential receptors is sufficient to ensure there is a low risk of adverse impacts on potential receptors. The Delegated Officer considers existing regulatory controls within the licence are sufficient to manage the risk.	
	Contaminated stormwater		Direct infiltration through soils to groundwater. Overland or subsurface flow to surface water (river)	Potential contamination of soils and surface water affecting ecosystem health and soil, and surface water quality.	Slight	Unlikley	Low	Stormwater can potentially become contaminated if in contact with the anti-mould solution. The Delegated Officer considers that the bunded design of the inline spray facility with a roofed structure over top will ensure stormwater coming in contact with the chemical is minimised and is contained within the facility infrastructure. The risk of adverse impact on soil or water quality is therefore considered to be low.	

									The Delegated Officer has reviewed existing regulatory controls on the licence relating to separation, collection and monitoring of stormwater (conditions 3-7) and is satisfied they are sufficient.
	Noise		Rural residential premises approximately 240m north-east of the in-line spray facility and 200m east-north-east of the LOSP facility	Air/ wind dispersion	Human health/ amenity impacts	Slight	Rare	Low	<p>The inline spray system is within an existing prescribed premises located in an area of established industrial and rural properties. Due to zoning in the surrounding area the density of potential receptors is low.</p> <p>The Delegated Officer considers that noise emissions from the inline spray system will not be discernable from other plant noise. The distance to human receptors is considered to be too great for health/amenity impacts to occur.</p> <p>The EP Noise Regulations apply to noise emissions.</p>
	Stormwater collection and discharge (pole yard)	Contaminated stormwater	Surface water – the Ferguson River traverses along the northern premises boundary at a distance of 50 to 100m.	Overland flow to surface water (river)	<p>Potential contamination of surface water with sediments affecting surface water quality.</p> <p>Smothering of vegetation affecting vegetation health.</p>	Slight	Rare	Low	<p>Potential stormwater contaminants within the pole yard are limited to anti-mould solution and sediment from the unpaved area. A maximum volume of .2,000L of anti-mould solution will be stored within the roofed and bunded in line spray facility.</p> <p>The Delegated Officer considers that Licence Holder proposed controls to contain the anti-mould solution within the bunded in line spray facility are appropriate to prevent its release. Stormwater from the pole yard is therefore considered to be uncontaminated apart from sediment.</p> <p>The stormwater settling sumps SP6</p>

									<p>and SP7 have a minimum storage capacity of 120kL. The Delegated Officer considers they are suitably sized to contain at least the first flush of stormwater containing the highest sediment load during heavy rainfall events.</p> <p>Based on the absence of contaminant sources other than sediment in the pole yard, the Delegated Officer considers that monitoring of stormwater discharge from SP6 and SP7 is not required. Modification of existing condition 20 is however required to ensure discharge from the sumps is authorised.</p>
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Decision

Based on the application supporting documentation, the Delegated Officer has determined that the construction and operation of the new inline spray facility for sapstain and mould, and the new LOSP treatment facility will not result in emissions and discharges which are unacceptable to public health or the environment.

The risk of noise and dust emissions during construction works is considered to be low. The key potential emissions associated with operation of the proposed infrastructure have been determined by the Delegated Officer to be chemical emissions associated with storage, handling and use of LOSP, and LOSP contaminated stormwater. Where the Delegated Officer considers the existing licence conditions insufficient to manage the risk of these emissions additional conditions have been included through this amendment notice.

The amendment notice includes the following additional conditions or changes:

- Construction specifications for the new in-line spray process and LOSP treatment facility (conditions 27 and 28);
- Licence Holder operational requirements for the inline spray facility and LOSP treatment facility (condition 31);
- An additional surface water monitoring parameter (TRH);
- Amendments to condition 20 to allow uncontaminated stormwater to be managed and discharged from the premises;
- Administrative amendments to conditions and definitions.

Upon completion of the works subject to this amendment the Licence Holder will be required to submit certification that the works have been completed prior to commencing operation of the new facilities (conditions 29 and 30).

Amendment History

Table 7 provides the amendment history for L4605/1987/11.

Table 7: Licence amendments

Instrument	Issued	Amendment
L4605/1987/11	26/09/2013	Licence reissue
L4605/1987/11	18/05/2017	Amendment Notice 1

Licence Holder's Comments

The Licence Holder was provided with the draft Amendment Notice on 11 April 2017. Comments received from the Licence Holder have been considered by the Delegated Officer as shown in Appendix 2.

Amendment

1. The definitions of the licence are amended by deletion of the text shown in strikethrough below and insertion of the red text shown in underline below.

~~“Director” means Director, Environmental Regulation Division of the Department of Environment Regulation for and on behalf of the Chief Executive Officer as delegated under Section 20 of the Environmental Protection Act 1986; and~~

~~“Director” for the purpose of correspondence means-~~

~~Regional Manager, South West Region
Department of Environment Regulation
PO Box 1693
Bunbury WA 6231
Telephone: (08) 9725 4300 Facsimile: (08) 9725 4351
Email: southwestregion.industryregulation@der.wa.gov.au~~

“CEO” for the purposes of notification means:

Chief Executive Officer
Department Div. 3 Pt. V EP Act
Locked Bag 33
CLOISTERS SQUARE WA 6850
Email: info@der.wa.gov.au

“Annual Audit Compliance Report” means a report in a format approved by the CEO as presented by the Licensee or as specified by the CEO from time to time and published on the Department’s website;

“Department” means the department established under s.35 of the Public Sector Management Act 1994 and designated as responsible for the administration of Division 3 Part V of the Environmental Protection Act 1986;

2. The Plan of Premises in Attachment 1 of the licence is replaced with the Plan of Premises in this Amendment Notice.
3. The licence is amended by the deletion of the Annual Audit Compliance Report template in Attachment 2.
4. Condition 20 of the licence is amended by the by the insertion of the red text shown in underline below:

20 The Licensee shall only discharge potentially contaminated stormwater from the authorised discharge points identified in Attachment 1 as SP1, SP2 and SP5.

5. Condition 21 of the Licence is amended by the deletion of the text shown in strikethrough below and the insertion of the red text shown in underline below:

21 The licensee shall:
(i) maintain the monitoring locations depicted in Attachment 1 and described in Table 1 ~~Table 2~~, and;
(ii) implement the monitoring programme specified in Table 1 ~~Table 2~~.

Table 1: Water Monitoring Programme

Monitoring Site	Frequency	Analyte Parameter	Unit
Test bores: 1.1, 2, 4, 5, 6, 7, 8	4 monthly April, August and December	pH Copper Chromium (III) Chromium (VI) Arsenic Total Dissolved Solids <u>Depth to water</u>	No unit mgL ⁻¹ mgL ⁻¹ mgL ⁻¹ mgL ⁻¹ mgL ⁻¹ <u>m AHD</u>
Surface water sampling points: SP1, SP2, SP3, SP4 and SP5	4 monthly April, August and December	pH Copper Chromium (III) Chromium (VI) Arsenic Total Dissolved Solids Depth to water <u>Total Recoverable</u> <u>Hydrocarbons (TRH)</u>	No unit mgL ⁻¹ mgL ⁻¹ mgL ⁻¹ mgL ⁻¹ mgL ⁻¹ m AHD <u>mgL⁻¹</u>

6. Condition 24 of the Licence is amended by the deletion of the text shown in strikethrough below and the insertion of the red text shown in underline below:

24 The licensee shall ensure the quality of the water discharged via the discharge points specified in condition 20 ~~W6~~ meet the following criteria specified in Table 2:

Table 2: Water Discharge Criteria

Analyte Parameter	Unit	Discharge Criteria
pH	No Unit	Range 5.0 to 9.0
Copper	mgL ⁻¹	Less than 1.0
Chromium (III)	mgL ⁻¹	Less than 0.5
Chromium (VI)	mgL ⁻¹	Less than 0.05
Arsenic	mgL ⁻¹	Less than 0.05
Total Dissolved Solids	mgL ⁻¹	Less than 1000

7. Condition 25 of the Licence is amended by the deletion of the text shown in strikethrough below and the insertion of the red text shown in underline below:

25. The licensee shall provide to the CEO ~~Director~~ a copy of the **annual monitoring report**. This report shall contain data collected from 1 January to 31 December and shall be provided by **1 February** of the following year. The report shall contain:

- (i) monitoring data or other collected data required by any condition of this licence;
- (ii) an explanation of the monitoring results with respect to the environmental impacts of the project;
- (iii) the number and type of environmental complaints received, including complainants name, address, nature of complaint (where appropriate cross referenced with prevailing wind directions) and action taken; and
- (iv) any changes to site boundaries, location of groundwater monitoring bores, surface drainage channels and on-site or off-site impacts or pollution.

8. Condition 26 of the Licence is amended by the deletion of the text shown in strikethrough below and the insertion of the red text shown in underline below:

26. *The licensee shall by 1 February in each year, provide to the CEO an annual audit compliance report ~~in the form in attachment 2 to this licence, signed and certified in the manner required by Section C of the form,~~ indicating the extent to which the licensee has complied with the conditions in of this licence, ~~and any previous licence issued under Part V of the Act for the Premises,~~ during the period beginning 1 January and ending on 31 December in that year.*

9. The licence is amended by the insertion of the following conditions 27 to 31:

WORKS

27. *The Licensee must construct the infrastructure listed in Column 1, at the location specified in Column 2 (and depicted in Attachment 2) and in accordance with the requirements set out in Column 3 of Table 3.*

Table 3: Infrastructure Requirements

Column 1	Column 2	Column 3
Infrastructure	Location (site plan reference)	Requirements (design and construction)
<i>Automated mould and sap stain inhibitor inline spray facility</i>	<i>Within the premises pole ageing yard as shown in Attachment 1</i>	<ol style="list-style-type: none"> 1. Construction of a 17m by 10m, 150mm thick, reinforced concrete bund with 100mm bund walls and a collection sump. 2. Construction of a structure comprising a steel roof, roof supports and steel walls 1m off the ground on the northern and eastern sides of the concrete bund. 3. Installation of a fully enclosed automated spray unit with five computer controlled low volume nozzles, an air curtain, outfeed decks and a drip tray within the constructed bund. 4. Installation of a pump connected to the bund collection sump and the in-line spray unit to collect and reuse any spillage.
<i>LOSP timber treatment facility</i>	<i>Within the existing timber storage shed as shown in Attachment 2</i>	<ol style="list-style-type: none"> 1. Installation of a 6m by 2.1m autoclave constructed of 14mm H11 boilerplate within a concrete bunded area. 2. Autoclave built in accordance with AS 2843.1:2006 and AS 2843.2:2006 for timber preservation plants. 3. Construction of a 140m² 125mm thick, reinforced concrete bund with 200mm bund walls to house the autoclave and LOSP work tank. 4. Installation of a 20,000L work tank within the LOSP treatment bund which meets the requirements of AS1962:2006. 5. Installation of ancillary equipment for the autoclave including a vacuum pump, two transfer pumps, a stripping pump and a hydraulic pump, associated electrical works

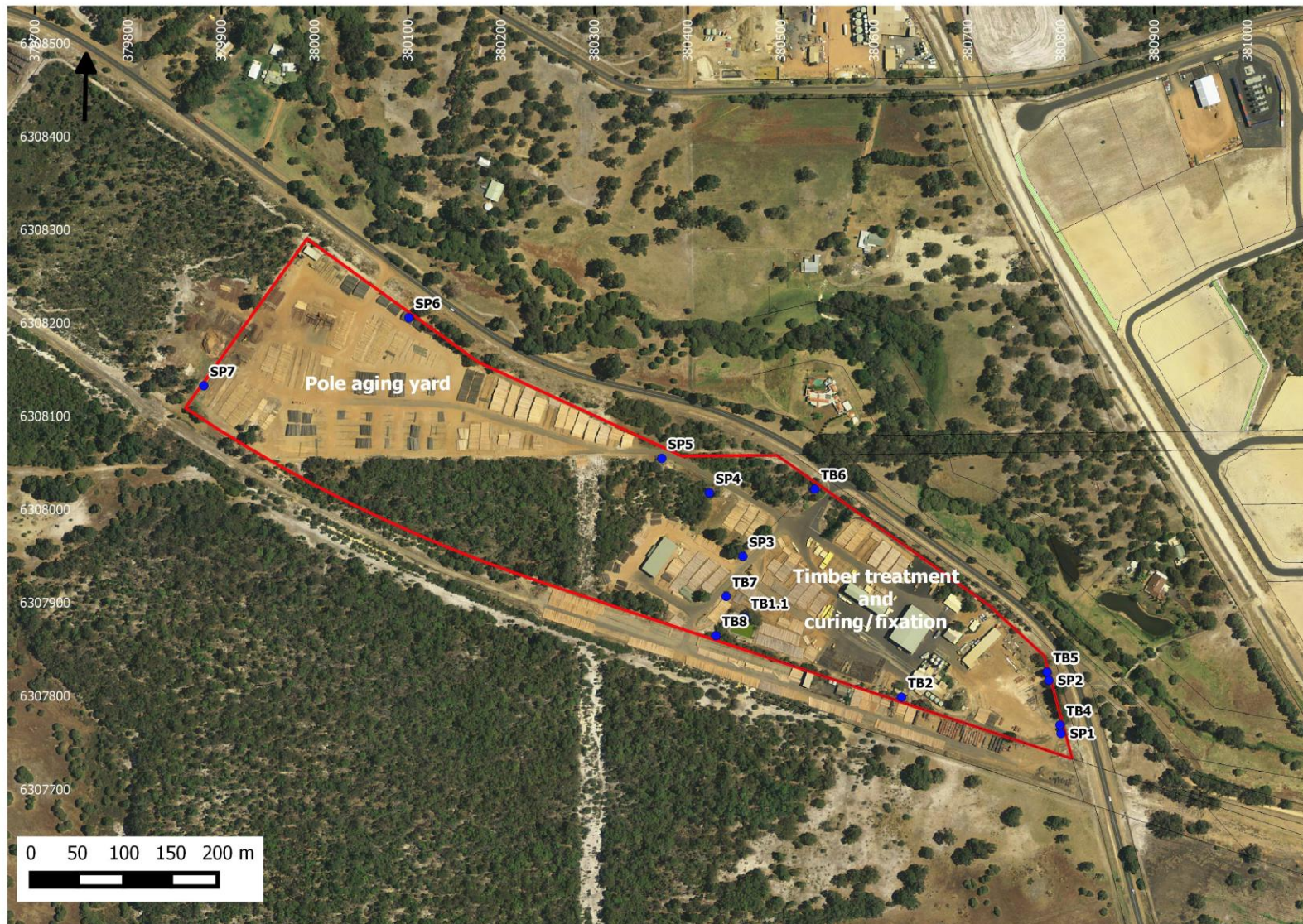
Column 1	Column 2	Column 3
Infrastructure	Location (site plan reference)	Requirements (design and construction)
		<p>(within the plant) and an automated traverser system.</p> <p>6. Installation of a computer controlled system for operation of the autoclave.</p>
LOSP chemical storage facility	Existing dangerous goods storage area as shown in Attachment 2	<p>1. Chemical storage bund constructed to meet the requirements of AS1940:2004.</p> <p>2. Existing chemical storage tank constructed of mild steel to the requirements of AS1962:2006.</p> <p>3. Installation of a double skinned delivery pipeline from the CCA delivery area to the chemical storage facility.</p> <p>4. Installation of a double skinned delivery pipeline from the chemical storage facility to the LOSP work tank within the timber storage shed.</p> <p>5. Installation of a leak detection system on buried chemical delivery pipelines.</p>

28. The Licensee must not depart from the specifications in Table 3 except:
- where such departure is minor in nature and does not materially change or affect the infrastructure; or
 - where such departure improves the functionality of the infrastructure and does not increase risks to public health, public amenity or the environment; and
 - in accordance with all other conditions in this Licence.
29. The Licensee shall submit a compliance document to the CEO, within 14 days following completion of the works specified in Column 3 of Table 3. The compliance document shall:
- certify that the works were constructed in accordance with conditions 27 and 28; and
 - be signed by a person authorised to represent the Licensee and contain the printed name and position of that person within the company.
30. Where a departure from the requirements specified in Column 3 of Table 3 occurs and is of a type allowed by Condition 28, the Licensee must provide to the CEO a description of, and explanation for, the departure along with the certification required by Condition 29.
31. The Licensee must ensure that, following submission of the construction compliance document required under condition 29, the infrastructure and equipment specified in column 1 of Table 4 are maintained and operated in good working order in accordance with the requirements specified in column 2 of Table 4.

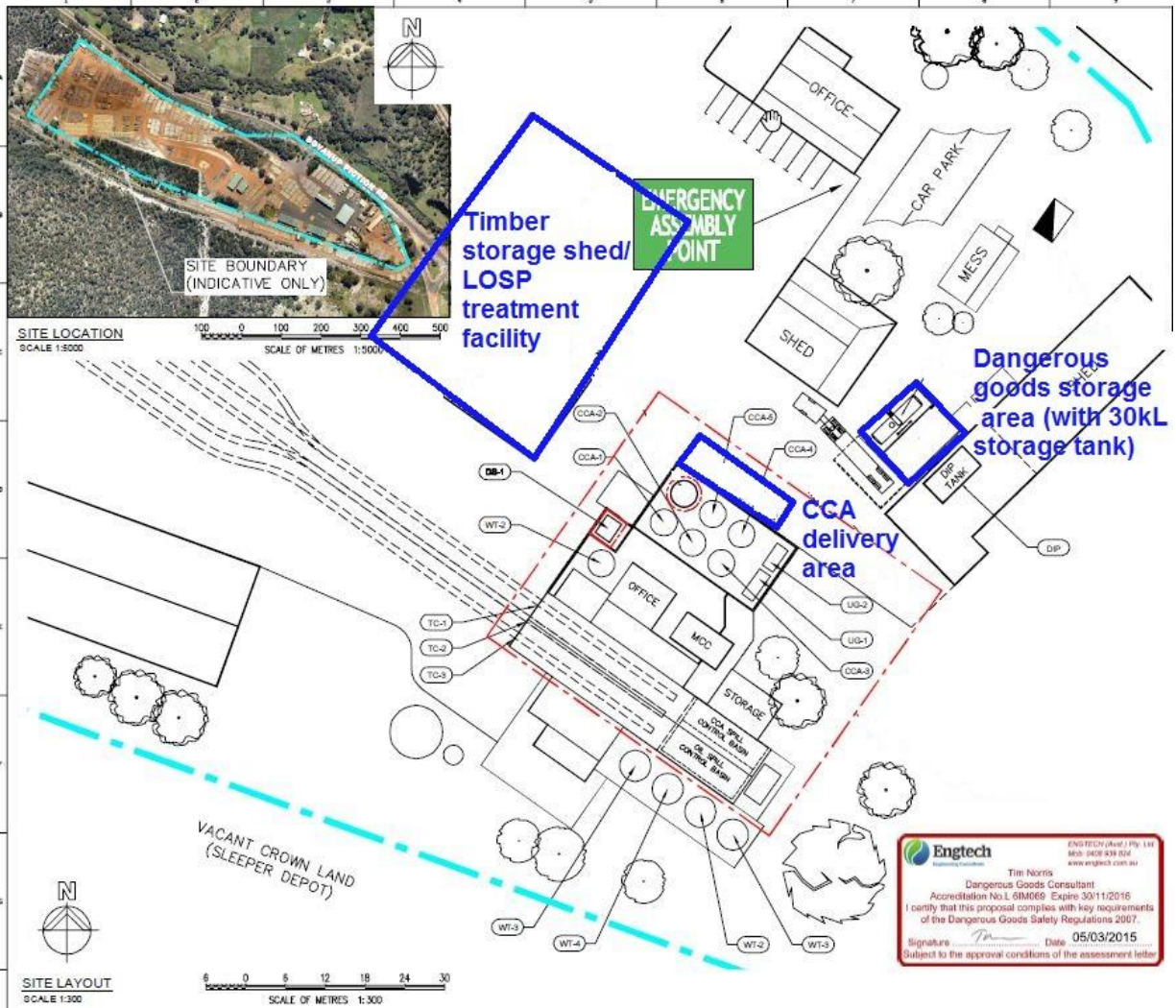
Table 4: Infrastructure Requirements

Column 1	Column 2
Site infrastructure	Operation details
<i>Automated mould and sap stain inhibitor inline spray facility</i>	<ol style="list-style-type: none"> 1. <i>The air curtain must be operating at all times when the inline spray unit is in operation.</i> 2. <i>Spillages and stormwater reporting to the inline spray facility collection sump and drip catchment trays must be pumped back to the inline spray unit for reuse.</i> 3. <i>Treated timber must be held within the bunded area for a minimum of 30 minutes following spraying.</i> 4. <i>A maximum of 2,000L of anti-mould solution can be stored within the inline spray facility bunded area.</i>
<i>LOSP treatment facility</i>	<ol style="list-style-type: none"> 1. <i>Any chemical release or collected stormwater in the bunded area must be pumped back to a storage facility for reuse.</i> 2. <i>If timber dripping is observed when timber exits the autoclave the Licensee must check all operational parameters are correct.</i> 3. <i>Treated timber must be stored for a minimum of 24 hours in the timber curing area within the timber storage shed post treatment.</i> 4. <i>Filling of the work tank must only be undertaken when the autoclave is not in use.</i> 5. <i>Residual preservative in the autoclave must be returned to the work tank prior to removing timber.</i> 6. <i>The autoclave must be fitted with a LOSP high-level alarm set at 95% with automatic shutdown of chemical delivery if triggered.</i> 7. <i>The work tank must be fitted with a high-level alarm set at 95%.</i> 8. <i>A time limit of no more than three minutes must be set for filling the autoclave with automatic shutdown of chemical delivery when reached.</i>
<i>LOSP dangerous goods storage area</i>	<ol style="list-style-type: none"> 1. <i>Delivery and transfer of pre-mixed LOSP and Solvex Kerosene must take place within the CCA delivery area.</i> 2. <i>Any chemical release or collected stormwater in the bunded area must be pumped back to a storage facility for reuse.</i> 3. <i>Storage tank isolation valves must be locked if the treatment area is unattended.</i> 4. <i>The chemical storage bund sump must be fitted with a high-level alarm set at 90%.</i> 5. <i>The chemical storage tank must be fitted with a high-level alarm set at 95%.</i> 6. <i>Buried LOSP transfer pipelines must be fitted with an automatic leak detection system linked.</i>

Attachment 1 - Premises Plan



Attachment 2 – LOSP Treatment Facility and Infrastructure Location Plan



Appendix 1: Key Documents/References

	Document Title	In text ref	Availability
1	Licence L4605/1987/11 – Koppers Picton	L4605/1987/11	accessed at http://www.der.wa.gov.au
2	Licence amendment supporting documentation received 11 October 2016: <ul style="list-style-type: none"> L4605 Koppers Wood Products Amendment Application, October 2016 	Koppers 2016a	DER record (A1177207)
3	Licence amendment supporting documentation received 11 January 2017: <ul style="list-style-type: none"> L4605 Koppers Wood Products Amendment Application Response, January 2017 	Koppers 2017a	DER record (A1356421)
4	Licence amendment supporting documentation received 16 January 2017: <ul style="list-style-type: none"> L4605 Koppers Wood Products Amendment Application Additional Information, January 2017 	Koppers 2017b	DER record (A1359018)
5	An Meá 2014. Stormwater Management Plan Koppers Wood Products Pty. Ltd. An Meá, Perth.	An Meá 2014	DER record (A893414)
6	DER notification of proposed amendment notice 1	DER 2017	DER record (A1410702)
7	Licence Holder comments on draft 21-day Amendment Notice 1	Koppers 2017c	DER record (A1417702)
8	Licence Holder response 1 to queries regarding comments on draft 21-day Amendment Notice 1	Koppers 2017d	DER record (A1425679)
9	Licence Holder response 2 to queries regarding comments on draft 21-day Amendment Notice 1	Koppers 2017e	DER record (A1428334)
10	DER, July 2015. <i>Guidance Statement: Regulatory principles</i> . Department of Environment Regulation, Perth.	DER 2015a	accessed at http://www.der.wa.gov.au
11	DER, October 2015. <i>Guidance Statement: Setting conditions</i> . Department of Environment Regulation, Perth.	DER 2015b	
12	DER, November 2016. <i>Guidance Statement: Risk Assessments</i> . Department of Environment Regulation, Perth.	DER 2016a	
13	DER, November 2016. <i>Guidance Statement: Decision Making</i> . Department of Environment Regulation, Perth.	DER 2016b	
14	DOW, October 2012. Leschenault Estuary water quality improvement plan, Department of Water, Perth.	DOW 2012	accessed at http://www.water.wa.gov.au

Appendix 2: Summary of Licence Holder comments

The Licence Holder was provided with the draft Amendment Notice on 11 April 2017 for review and comment. The Licence Holder responded on 24 April 2017. The following comments were received on the draft Amendment Notice.

Comments received	DER consideration of risk
Increase the volume of anti-mould stored within the bunded in line spray treatment facility from 1,000L to 2,000L as two IBC's of solution are required (one in use and one spare) to enable for changeover.	Due to the volume of the bunded storage area being significantly larger than the volume of chemical being stored there is no increase in the risk associated with storage of the anti-mould solution as a result of the change.
Reduce the size of the line spray treatment facility bund from 21m ³ storage capacity to 17m ³ storage capacity	The maximum volume of anti-mould stored and in use within the bunded area is 2,000L therefore the bund is still capable of containing >100% of the stored chemical volume therefore there is no increase in risk as a result of this change.
Increase maximum volume of timber to be treated annually through the LOSP treatment facility from 12,000m ³ to 24,000m ³	No increase in risk associated with increasing the volume of timber treated.
Change method of seasoning timber from drying kiln to air dry or drying kiln.	No risk associated with timber seasoning.
Change the level sensors and alarm level for the autoclave from 90% to 95% capacity.	No increase in risk associated with increasing the level sensor and alarm to 95% capacity.
The location for establishment of the LOSP timber treatment facility has been changed from the old Tanalith T treatment shed to the existing timber storage shed. The proposed changes to the infrastructure requirements for the LOSP treatment facility were detailed in the response.	Changing the location of the LOSP plant and associated infrastructure requires reassessment of some of the risks associated with the facility. The risk assessment was adjusted accordingly.
References to the autoclave being self bunded were removed as the autoclave is not self bunded and the dimensions were altered slightly.	The autoclave is located within a bunded area so self bunding is not required to capture releases from the equipment. The level of risk associated with operating the autoclave has therefore not changed.