

Port Botany Development Code 2009 Checklist

This checklist is a summarised version of the Development Code and is to be completed as part of any environmental assessment for development proposed in Port Botany. Please refer to Development Code for further information and detail.

| Section 2 | Visual Amenity | Compliance / Comment |
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| Criteria 1 | The maximum height of all building structures and tanks is not to exceed the maximum building heights illustrated at Figure 1 . The maximum height is measured to the highest point of a building from Zero Fort Denison Tide Gauge (ZFDTG). Height includes plant and lift overruns, but excludes communication devices, antennae, satellite dishes, flagpoles and the like. | Complies. The proposed height of the additional tanks are less than 32.5m ZFDTG as the proposed height is approximately 21m. |
| Criteria 2 | The maximum heights at Figure 1 do not apply to port terminal operating equipment such as cranes. These elements may be any height to achieve efficient operational capability, subject to obtaining relevant approvals including approvals under the <i>Commonwealth Airports Act 1996</i> and <i>Civil Aviation Act 1988</i> . | Noted. |
| Criteria 3 | Container stacks are not to exceed a height of 6 containers. | Complies. No containers are proposed. |
| Criteria 4 | Air-conditioning units, telecommunications equipment or mechanical plant are to be concealed within screened enclosures or positioned behind the roofline to minimise their visibility from main port road frontages. | Complies. Generally the existing mechanical plant/equipment is proposed to be used and is appropriately screened from the road frontages. |
| Criteria 5 | Buildings shall be oriented towards the primary street frontage. The office component of a building is to address the street so as to provide an attractive frontage, easily identifiable building entry and the potential for surveillance of the street. | Small local office for Bitumen operations is proposed. But main office will be existing Friendship road building. |
| Section 2 | Visual Amenity | Compliance / Comment |
| Criteria 6 | Buildings should be designed so as to mitigate the perception of bulk and scale from main port road frontages by: <ul style="list-style-type: none"> - the articulation of building facades where buildings front a main port road frontage, - varying façade alignments and height, - breaking up of facades with windows and the use of decorative features, cantilevered elements and the like, and - varying materials and colours used. | Small local office for Bitumen operations is proposed. But main office will be existing Friendship road building. |
| Criteria 7 | The development incorporates the indicative palette of colours for building structures shown at Figure 2 . | The proposed tanks will appear grey due to being insulated. |

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| Criteria 8 | Buildings, in particular large buildings, are to comprise external materials incorporating muted recessive colours with material and / or tonal colour variation used to break the mass of buildings and walls. Lighter shades should be used for larger wall areas and structures, with darker shades used as highlights. Highlight colours (i.e. red, yellow and orange tones) may be used to articulate architectural features and the like. | Small local office for Bitumen operations is proposed. But main office will be existing Friendship road building. The proposed tanks will appear grey due to being insulated. |
| Criteria 9 | Materials and colours for buildings and roofs are to be non-reflective. All glazing is to have a reflectivity coefficient of less than 20%. | Complies. Small local office building and roof will be non reflective. The proposed tanks will appear grey due to being insulated and will exhibit a similar reflectivity level. |
| Criteria 10 | Lighter colours on light poles should be avoided in favour of darker, less reflective colours. | Light poles will be consistent with existing poles and be less reflective in colour. |
| Criteria 11 | All tanks are to be painted white or light grey. | Complies. The proposed tanks will appear grey due to being insulated. |
| Criteria 12 | The visibility of mobile elements such as cranes and rail mounted gantries is to be reinforced through colour. The colour selected by the terminal operator is to be submitted as part of the application for development. | N/A. |
| Section 3 | Sustainable Development | Compliance / Comments |
| Criteria 1 | All development should incorporate as many of the suggested measures contained in Sydney Ports' <i>Green Port Guidelines</i> as practicable. As a minimum, all development proposals are to be accompanied by a completed <i>Green Port Guidelines</i> checklist. | Complies. A Green Port Checklist is provided with the submission and contains the proposed and existing measures. |
| Criteria 2 | The commercial office component of all buildings is to achieve a minimum 4 Star Green Star rating (or the equivalent) under the Green Star - Office Design v3 tool, or the latest applicable version. Should future Green Star rating tools include industrial facilities, these should also be applied for the industrial component of a building. | N/A. |
| Criteria 3 | Buildings (including sheds and workshops) are to be designed and constructed to maximise the use of natural ventilation and natural lighting, and to minimise energy consumption associated with heating, cooling and lighting. | Complies. Small local office will maximise natural ventilation and lighting. |
| Criteria 4 | Development is to collect sufficient rainwater for irrigation of landscaping and preferably for use in container wash down facilities and the like, and grey water flushing of sanitary | Landscaping is proposed at Simblist road frontage and irrigated by rainwater tanks connected to bitumen gantry roof & office roof plus |

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| | fixtures. | servicing grey water flushing of local toilets and like. |
| Criteria 5 | Low maintenance and robust materials are to be used. | Complies. |
| Criteria 6 | A climate change risk assessment is to be provided as part of an application for all new developments in accordance with the most current NSW Government Sea Level Rise Policy. | A Green Port Checklist is provided with the submission and contains the proposed and existing measures. The NSW climate change guidelines have been reviewed and this area is not threatened. |
| Criteria 7 | All development is to incorporate measures to minimise greenhouse gas emissions. | A Green Port Checklist is provided with the submission and contains the proposed and existing measures. |
| Section 4 | Access, Parking and Loading | Compliance / Comments |
| Criteria 1 | All development proposals are to assess both on and off-site traffic impacts and are to be accompanied by a Traffic Management Site Plan and, where required, a Traffic Management Control Plan, prepared in accordance with Sydney Ports' <i>Traffic Management Plan Guidelines 2007</i> . | Complies. The proposal will generate a nominal additional amount of traffic. The submission has addressed the Traffic Management Plan Guidelines 2007 and a Traffic Management Plan is included at Appendix G. |
| Criteria 2 | All site vehicular access points are to be located and designed to avoid conflicts between pedestrians, light vehicles and truck movements. | Complies. The proposal will utilise the existing Simblist Road access point, amended to facilitate the proposed development. |
| Criteria 3 | Container facilities are to provide separate access points to an adjoining roadway for light vehicles and trucks. | Complies. |
| Criteria 4 | Designated pedestrian paths should have surfaces which clearly delineate pedestrian paths from vehicular roads and parking surfaces, with a perceivable change in material or colour. | Pedestrian traffic will generally not be along vehicle accessways but pedestrian paths to tanker gantry will be marked. Also parking spaces and paths will be clearly marked. |
| Criteria 5 | All employee and visitor parking is to be accommodated within the leased area. Car parking areas (ie parking bays and loading areas) are to: <ul style="list-style-type: none"> - be designed in accordance with <i>Australian Standard AS 1428:1-4 Design for Access and Mobility</i>, <i>Australian Standard AS 2890.1 Car Parking Facilities</i> and <i>Australian Standard AS 2890.2 Commercial Vehicle Facilities</i>, - provide a minimum rate of one (1) parking space per staff member or | Six parking spaces will be accommodated on site of which two for visitors, one disabled and three for operators and maintenance workers. |

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| | <p>contractor plus 10% (calculation to be based on the maximum number of staff members and / or contractors on site at any one time) and at least two (2) visitor parking spaces,</p> <ul style="list-style-type: none"> - provide for at least one (1) mobility impaired parking space, to be located adjacent to building entries and clearly delineated, - be paved with concrete or bituminous surfacing designed and drained to the approved stormwater drainage system, and - incorporate landscaping to provide visual screening to reduce the visual impact particularly from external roadways (Figure 4). | |
| Criteria 6 | For sites with less than 20 car spaces, screen planting to the perimeter of the car park is to be provided. For sites with more than 20 car spaces, additional tree bays (1.2 x 3m minimum) are to be incorporated at a rate of rate of one (1) bay for every 10 spaces, except where bays abut rear or side walls of buildings (Figure 5). | Car parking area will be adjacent to office and transformer area so no screening partition envisaged. |
| Criteria 7 | All vehicles being loaded and/or unloaded (or awaiting loading and/or unloading) shall stand entirely within the leased area to avoid queuing of vehicles outside of leased areas. | For safety reasons, no queuing of trucks is permitted within the site. Given the current and expected low volumes of truck movements together with the likelihood of such movements at the time of loading and unloading to occur across any 24 hour period, that the potential for congestion on Simblist Road will be negligible |
| Criteria 8 | Garbage bins and waste recycling areas shall be accommodated on site, appropriately screened and accessible to the users of the building and service vehicles. | Complies. The existing arrangement for waste will incorporate the proposed works. |
| Criteria 9 | Bicycle parking should be provided at a rate of at least two (2) bicycle parking spaces plus 5% of the total number of required car parking spaces. Bicycle parking facilities should be located in highly visible, illuminated areas and securely anchored to the site surface to prevent removal and shall be of sufficient strength to resist vandalism and theft. | Bicycle parking will be accommodated as part of the small office/amenities building with security provision. |
| Section 5 | Security | Compliance / Comments |
| Criteria 1 | All development is to incorporate the principles of crime prevention through environmental design in the layout and security measures (principles are available from the NSW Department of Planning). | Complies. The site is secured and employs good security management practices and procedures. |

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| Criteria 2 | All leased areas are to be appropriately fenced for security purposes. All fencing is to be chain wire fencing with optional 3 strand barbed wire along the top portion of the fence (Figure 6). The maximum fence height permitted is 3.5m (inclusive of the barbed wire portion). | Complies. Fencing will meet the criteria and consistent with existing design. |
| Criteria 3 | All chain wire fencing, posts and rails and gates that are visible from the water and main port roads (excluding roads within leased areas) are required to be black in colour (ie black PVC, powder coated or the like). Fencing in other locations may comprise a metallic finish. | Complies. Fencing will meet the criteria and consistent with existing design. |
| Criteria 4 | All access points to leased areas are to be secured with durable gates, and checkpoint facilities, where appropriate. Gates are to comprise either chain wire fencing set within a framed rim (with optional 3 strand barbed wire on top), or palisade slide gates (with optional spikes or barbed wire on top) - (Figure 6). | Complies. The site is secured and employs good security management practices and procedures. Fencing will meet the criteria and consistent with existing site design. |
| Criteria 5 | Truck entry to a site must be set back as a minimum 65m from the lease boundary for container facilities and 30m for non-container facilities (Figure 7). | Complies. Truck entry is recessed sufficiently to enable a B-Double truck to get totally off the road. |
| Section 6 | Landscaping | Compliance / Comments |
| General Criteria | | |
| Criteria 1 | Landscaping is to be provided in front of fences that face roads external to the lease area and to non-active waterfronts. | Landscaping is proposed at Simblist road frontage and will be consistent with criteria. |
| Criteria 2 | Only suitable native plant species are to be used and, where possible and practical, locally sourced provenance stock should be used. The minimum plant container sizes are to be as follows: Trees – 25 litres, Accents – 5 litres, and Groundcovers – 100mm. | Landscaping is proposed at Simblist road frontage and will be consistent with criteria. |
| Criteria 3 | All landscaping, in particular within car parks and along pedestrian paths, is to take into account the need to maintain passive surveillance. | N/A. No landscaping envisaged within the 6 car park area. |
| Criteria 4 | Where landscaping is provided within internal boundaries, the trunks of trees on internal boundaries must not be closer than 2.5m to the perimeter fence and no part of the tree is to overhang the adjoining premise. | Landscaping is proposed at Simblist road frontage and will be consistent with criteria. |
| Criteria 5 | Landscaped areas are to be irrigated, preferably with captured stormwater runoff / rainwater. Irrigation systems are to consist of an automated drip irrigation system with | Landscaping is proposed at Simblist road frontage and irrigated by rainwater tanks connected to bitumen gantry |

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| | approved back flow prevention devices, controllers (in vandal resistant boxes), and appropriate zoning. | roof & office roof plus will meet automated drip system. |
| Criteria 6 | Mown grassed verges, adjoining landscaping strips or otherwise, are to comply with the requirements at Appendix A . | Landscaping is proposed at Simblist road frontage and will be consistent with criteria. |
| Specific Criteria | Road Reserve Landscape Areas | |
| Criteria 7 | Establish a 5m landscaped buffer strip within the lease area, facing the external roadway. The buffer strip is to have flush timber edging with the security fencing located behind the landscaping (Figure 8). | Landscaping is proposed at Simblist road frontage and will be consistent with criteria. |
| Criteria 8 | Develop and maintain a consistent pattern of selected native planting including: <ul style="list-style-type: none"> - layered and banded ground stratum planting (up to 0.5 - 0.7m high), - accent planting with large perennials (up to 1.4m high), - clustered and individual small to medium tree planting up to 8-12m in height, and - clusters to have a maximum spacing of 15m between groups. | Landscaping is proposed at Simblist road frontage and will be consistent with criteria. |
| Criteria 9 | Ensure a high level of security and passive surveillance: <ul style="list-style-type: none"> - no dense, mid-stratum shrub planting (ie. up to 3m in height), - no tree planting within 2.5m of fence line, and - under prune trees to minimum 2.5m above ground level and maintain adequate branch clearance from the security fencing. | Landscaping is proposed at Simblist road frontage and will be consistent with criteria. |
| Criteria 10 | Existing landscape areas that do not comply with the above controls should be removed and replaced with landscaping that complies with the above controls. | Landscaping is proposed at Simblist road frontage and will be consistent with criteria. |
| Criteria 11 | The suggested planting palette for this area is set out at Appendix A . | Landscaping is proposed at Simblist road frontage and will be consistent with criteria. |
| Specific Criteria | Potential Fire Risk Landscape Areas / Non-active Water Front Landscaped Areas | |
| Criteria 12 | Establish a 5m landscaped buffer strip within the lease area, facing the roadway external to the lease area / non-active water front. The buffer strip is to have flush timber edging with the security fencing located behind the landscaping (Figure 9). | Landscaping is proposed at Simblist road frontage and will be consistent with criteria. |

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| Criteria 13 | <p>Continue repetition of form, texture and colour to create a strong multi-layered, rhythmic pattern in the landscape as follows:</p> <ul style="list-style-type: none"> - layered and banded ground stratum planting (0.4 – 0.7m high), and - introduce highlights within the landscape buffer strip using grouped accent planting with large perennials (up to 1.4m high). | Landscaping is proposed at Simblist road frontage and will be consistent with criteria. |
| Criteria 14 | Develop layered bedding pattern with a progression from smaller species at the front edge to larger species at the back (near the fence line). | Landscaping is proposed at Simblist road frontage and will be consistent with criteria. |
| Criteria 15 | Existing landscape areas that do not comply with the above controls should be removed and replaced with landscaping that complies with the above controls. | Landscaping is proposed at Simblist road frontage and will be consistent with criteria. |
| Criteria 16 | Use hardy native or indigenous plant species suited to site-specific environmental conditions with a low fire risk (ie. low combustion or fire retardant properties). The suggested planting palette for this area is set out at Appendix A . | Landscaping is proposed at Simblist road frontage and will be consistent with criteria. |
| Section 7 | Signage | Compliance / Comment |
| Criteria 1 | <p>All directional signage outside or on the lease area fence (Figure 10) and public notice signage (i.e. a sign which contains warning, safety, security or instructive information that is only erectable by a public authority), excluding RTA street signage:</p> <ul style="list-style-type: none"> - is to be located in a prominent position and clearly visible, - is not to be located above a roadway, - is to be of a size and location so as to not obscure vehicle sightlines, - is to be positioned where it does not obstruct walkways and pathways, - is to consist of similar colours to that of the Sydney Ports Corporation colour scheme comprising dark blue, orange, red, white, black and grey, or is to be consistent with colours of typical safety / warning signage (ie. to comply with applicable Australian Standards), - may incorporate the lessee logo where it is located for directional purposes at the entrance to a leased area. The colours of the logo are to be lessee corporate colours, and - for car parking areas, loading and delivery areas and the like, is to be located close to the main access of a | Complies. Additional signage for tanker access and egress information including Terminals identification, visitors and an approved SPC gate number (eg Gate 55 a) will be implemented. |

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| | site. | |
| Criteria 2 | No advertising signs shall be erected within the port estate upon the buildings, structures or tanks other than business identification signage. | N/A. No advertising signage is proposed as part of this application. |
| Criteria 3 | <p>Business identification signage (Figure 11):</p> <ul style="list-style-type: none"> - is to be located outside the lease area fence and located on Sydney Ports' standard Blade Sign, - should not obscure vehicle sightlines or control signs, - is permitted on one elevation of the primary building, except where a site has two main road frontages or where there are multiple occupants within a building, - may comprise text, illustrations, and/or both, to ensure clear identification of the sign and its intent, - is not to be illuminated or comprise any form of moving or flashing signage, - is not to occupy more than 10% of any facade or elevation of a building, and - is to identify visitor entrance points to lease areas. | Complies. Additional signage for tanker access and egress information including Terminals identification, visitors and an approved SPC gate number (eg Gate 55 a) will be implemented. |
| Criteria 4 | Business identification signage on the side of tanks is limited to 1 sign per leased area or site (in the case of multiple lease areas being operated as a single site). The sign should be subordinate to the elevation of the tank. | Any additional signage on a tank will comply. |
| Section 8 | Lighting | Compliance / Comments |
| Criteria 1 | Lighting levels are to be provided in a manner just sufficient to meet operational requirements. | Complies. Additional lighting will be provided to meet safety requirements eg 100 Lux at road tanker gantry plus operational activities and generally 50 Lux at non operational activities but accessways. |
| Criteria 2 | Lighting levels are to be provided to meet CASA/Air Services requirements. | Complies. |
| Criteria 3 | Appropriate lighting should be provided at key locations such as pedestrian paths, driveways, parking areas and building entries, so as to identify and provide safe access routes for both employees and visitors. | Complies. Additional lighting will be provided to meet safety requirements eg 100 Lux at road tanker gantry plus operational activities and generally 50 Lux at non operational activities but |

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| | | accessways. |
| Criteria 4 | Lighting is to be positioned so as to not cause distraction to vehicle drivers on internal or external roads or the occupants of adjoining sites. | Complies. |
| Criteria 5 | Light spill outside the site boundary and sky lighting is to be avoided through the adoption of measures such as: <ul style="list-style-type: none"> - Focussing lights downwards, - Installing cut-offs or shields on lights, - Minimising the light mast height, and - Using low mounting height poles to light non terminal operational areas, including access / egress routes. | Complies. |
| Criteria 6 | No fixed light is to spill into Penrhyn Estuary or the Estuary flushing channel (Figure 18). | Complies. The site is distanced by more than 1000m from the Penrhyn Estuary. |
| Criteria 7 | Low mounting height poles are to be used adjacent to the Estuary. | Complies. The site is distanced by more than 1000m from the Penrhyn Estuary. |
| Criteria 8 | Screen moving lights, such as vehicle headlights, so they do not shine into Penrhyn Estuary. | Complies. The site is distanced by more than 1000m from the Penrhyn Estuary. |
| Criteria 9 | High level lighting on operational equipment is not to shine into Penrhyn Estuary. | Complies. The site is distanced by more than 1000m from the Penrhyn Estuary. |
| Criteria 10 | There is to be a buffer between Penrhyn Estuary and terminal operations to the west of 20m. Road access / egress only is permitted within this area. | N/A. The site is distanced by more than 1000m from the Penrhyn Estuary. |
| Section 9 | Heritage | Compliance / Comments |
| Criteria 1 | The Revetment Wall along Prince of Wales Drive and the Old Government Wharf Remains are listed as heritage items on Sydney Ports' Section 170 Heritage and Conservation Register (see Figure 12). Any development proposal which has the potential to impact on these items or their heritage significance is to be accompanied by a heritage impact statement. | Complies. The site is located adjacent to the Port Botany Revetment Wall to the south. The proposal will not impact upon the heritage significance of the wall in that the proposed tanks will be located wholly within a bunded area of the current site/leased area and setback from the SPC leased boundary. |
| Criteria 2 | Development in the vicinity of a heritage item is to be designed to respect and complement the heritage item. | Complies. The proposed tanks will complement the existing approved development on site and will not alter the significance of |

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| | | the wall. |
| Section 10 | Land Use Safety and Hazard Management | Compliance / Comments |
| Criteria | Non Hazardous Facilities | |
| Criteria 1 | All proposals for new or expanded non-hazardous developments are required to consider the consequence and risk impacts of existing or proposed potentially hazardous developments on the development proposal. A formal assessment document shall be prepared for the new or expanded non-hazardous development to demonstrate that the development does not result in the proposed facility exceeding the acceptable risk criteria, both individual and societal (refer to the <i>Port Botany Land Use Safety Study Overview Report 1996</i>). A copy of the Risk Assessment, conducted for the proposed development, is to be submitted as part of the application for development. | Complies. A PHA is provided with the submission assessing the relevant requirements and criteria. |
| Criteria 2 | For non-hazardous facilities / sites which intend to become a licensed dangerous goods facility, a Risk Assessment is to be undertaken and is to be submitted as part of the application for development. | N/A. |
| Specific Criteria | Hazardous Facilities | |
| Criteria 3 | All proposals for new or expanded potentially hazardous developments are required to undergo a Risk Assessment. The Risk Assessment is to be submitted as part of the application for development and is to include the implementation, operation and maintenance phases. The assessment is to demonstrate: <ul style="list-style-type: none"> - that all foreseeable hazards that may arise from a development, that have a potential to harm the health and safety of any person, the environment, or impact the safety of buildings, equipment, plant and facilities have been clearly identified, - that there will be limited potential for propagation of hazardous incidents to the neighbouring facilities, in accordance with the "As Low As Reasonably Practicable" (ALARP) principle, - that the risks associated with the identified hazards at the development have been appropriately analysed and assessed, - that the proposed development will not contribute to any increase in the cumulative risk (individual & societal risk) beyond the levels shown in | Complies. A PHA is provided with the submission assessing the relevant requirements and criteria. |

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| | <p>Figures 2 and 9 of the <i>Port Botany Land Use Safety Study Overview Report 1996</i>,</p> <ul style="list-style-type: none"> - that the assessed risks comply with the relevant risk criteria published by the regulatory authorities, - that all identified risks will be controlled and minimised by protection and mitigation, and - that incidents at hazardous facilities will not impact on the use or operation of adjacent land, including Sydney Ports Corporation's common areas (e.g. roadways). The Risk Assessment for the proposed development is to include the quantitative analysis of incident impacts relating to consequence severity and risk. The impacts are not to exceed acceptable published risk criteria. | |
| Criteria 4 | Minimum separation distances required to 'protected places' must remain within the lease boundary. | <p>Complies. A PHA is provided with the submission assessing the relevant requirements and criteria.</p> <p>Complies with AS 1940 separation distances to 'protected places'.</p> |
| Specific Criteria | Bulk Liquid Storage Facilities | |
| Criteria 5 | Separation distances within and between bulk liquid storage hazardous facilities (i.e. separation distances between facilities on the subject site or adjoining sites) is to be provided in accordance with the relevant Australian Standard(s) or the criteria listed in this section of the Code, whichever is the greater. | Complies. The proposed tanks are located within the existing site and afford appropriate separation from adjoining sites; ie meets AS 1940 criteria. |
| Criteria 6 | <p>The minimum distance between any bulk liquid storage tank, and associated bunded area, and the boundary of a leased area is to be as follows:</p> <ul style="list-style-type: none"> - tank and lease boundary – 15m, - tank and lease boundary adjacent to the main roadway – 20m, - bund and lease boundary - 6m, and - bund and lease boundary adjacent to the main roadway - 15m. | Complies. The tanks and bunded area are located greater than 20m from the lease boundary adjacent to roadway; bund greater than 6m from neighbouring lease boundary and tanks are minimum of 15 m from neighbouring leased boundary. |
| Criteria 7 | A perimeter roadway is to be provided around all bulk liquid storage areas. A bulk liquid storage area consists of bulk liquid tanks contained within a bunded area. Figure 14 | <p>Complies.</p> <p>The tanks are located within an approved bunded area,</p> |

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| | <p>shows the minimum acceptable roadway layout around a bulk liquids storage area. The perimeter roadway is to be provided with the following:</p> <ul style="list-style-type: none"> - 6m clear road width, - Corners designed to accommodate the turning of emergency vehicles / trucks, - Connected to the main roadway at the front of the site, either directly or by an internal site road no less than 6m wide, and - Unobstructed access along the full length of the road. | <p>which meets the Code's guidelines including:</p> <ul style="list-style-type: none"> - an emergency access road surrounds the bunded area - adequate turning space for emergency vehicles is provided - the roadway is connected to the Simblist Road frontage - the access road is unobstructed |
| Criteria 8 | <p>Where bulk liquid storage areas are located on adjoining leased land (Figure 15), a single perimeter road is permitted between the bulk liquid storage areas, subject to an agreement/consent between the adjoining lessees. The single access roadway between the two bulk liquid storage areas is to meet the requirements of criteria 8 above as well as the following:</p> <ul style="list-style-type: none"> - any perimeter fence provided between the properties shall be provided with gates at the front and rear sections of the perimeter roadway, - gates provided for access between the two bulk liquids storage facilities shall have a minimum access opening not less than 5.5m wide, and - the opening movement of the gates shall not be obstructed by any means other than a conventional locking device, kept and maintained in good repair and working order. | N/A. |
| Criteria 9 | <p>Where a bulk liquid storage facility operates a road tanker filling area, the road tanker filling area shall be located wholly off any access road that passes the filling area. Figure 16 provides an example of a bulk liquids tanker filling area located adjacent to an access road. The filling area shall be located so that no part of a truck in the filling bay extends into the access road.</p> | Complies. The proposed loading facility will be wholly located within the SPC leased area. . |
| Specific Criteria | Pipelines | |
| Criteria 10 | <p>All pipelines proposed within the Port Botany Port precinct are to be located in the following manner:</p> <ul style="list-style-type: none"> - Pipelines required to be installed external to the leased area are to be located within a Port Botany pipeline | <p>Complies.</p> <p>The proposal includes a new off site 250 mm dockline and natural gas supply pipeline; both located above ground in</p> |

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| | <p>corridor (Figure 17),</p> <ul style="list-style-type: none"> - Exposed above ground level or in an open culvert lined with impermeable material so as to prevent the percolation of any spilled materials through the paving into the underlying sand. The paving and any jointing materials to be used shall be resistant both to heat and the corrosive effects of the range of the products to be transported in the pipeline, - Underground pipelines are to be avoided unless absolutely necessary, - Where underground pipelines are used they are to be installed with a leak detection system (e.g. differential flow device, inventory measurement, etc.), - Underground pipelines are to be suitably protected against corrosion, considering (but not limited to) the following: <ul style="list-style-type: none"> - expected lifetime of the pipeline, - soil conditions, - potential acid sulfate soils, and - water table level. <p>Details of the leak detection system and corrosion protection are to be provided in the risk assessment documentation.</p> | <p>the pipeline corridor.</p> <p>Underground pipework will be limited to on site drainage piping and may include utilities and firewater piping; these will be coated and denso wrapped for corrosion protection.</p> <p>All product pipelines are above ground and there are no underground product pipelines as part of this proposal.</p> |
| Criteria 11 | <p>All above ground bolted flanged joints, associated with the pipeline outside the main storage bund area, are to be provided with the following:</p> <ul style="list-style-type: none"> - A bunded pit to retain any product leaks, - Protection to prevent leaks from flanges and joints spraying beyond the confines of the pit, and - Leak detection within the pit and an alarm system to notify of potential flange/joint leaks. <p>It is noted that the pit may require a cover to prevent the ingress of rain water causing false leak detection alarms.</p> | <p>All above ground product pipework is fully welded, without bolted flanged joints, where located outside containment areas. Bolted flanged joints are located at the wharf, secondary valve pit and at the new loading/unloading bitumen gantry. None of these flanges are used routinely as operational activities but infrequently used for hose connection/disconnection and maintenance only. These areas have spill containment.</p> <p>Loading/unloading gantry pipework is only online when a person is in attendance to ensure any leaks are immediately detected.</p> |
| Criteria | Areas where petroleum, petroleum products, petro-chemicals and other liquid chemicals are handled or stored | |

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| Criteria 12 | Areas where Petroleum, Petroleum Products, Petro-Chemicals and other Liquid Chemicals are handled or stored are required to be bunded in accordance with the relevant standards. Where pipeline or hose connections are made or broken for operational activities, these areas are also required to be bunded. | Complies. The proposed tanks will be located within a bunded area of the subject site and meets all legislative requirements including AS 1940 and EPA bunding guidelines. |
| Criteria 13 | The area within all bunded enclosures is to be impervious so as to prevent the percolation of any spilled materials through the paving into the underlying sand. The paving and any jointing materials to be used shall be resistant both to heat and the corrosive effects of the range of the products to be handled or stored. | Complies. The proposed tanks are located within the existing bunded area and meets all legislative requirements. Also bitumen leaks will quickly solidify as a sealant. |
| Criteria 14 | The surface of the paving in bunded areas shall be graded so as to permit the flow of surface water to a suitable drainage system. This surface shall be maintained to prevent ponding. | Complies. The proposed tanks are located within a bunded area, sloping away from the tanks such that above ground pumps will pump any surface water to an existing API separator. Meets all legislative requirements. |
| Criteria 15 | All stormwater from bunded areas shall be directed through a separator system located outside the bunded area. The stormwater outlet through the bund walls shall be controlled with a valve located outside the bunded area. This valve shall be kept closed at all times except when stormwater is being released. | Complies. The bunded areas slope to above ground drainage pumps that will pump any surface water to an existing API separator by operating valves outside the bunded area. Meets all legislative requirements. |
| Criteria 16 | Unbunded areas used for loading of road tankers, refuelling or other handling operations are to have impervious paving so as to prevent the percolation of any spilled materials through the paving into the underlying sand. The paving and any jointing materials to be used shall be resistant both to heat and the corrosive effects of the range of the products to be handled. All drainage from these areas is to be directed to a drainage system via a separator system. | Complies. The area for loading and the like, located at the rear of the site, will be sealed and includes above ground drainage pumps that discharge to the existing API separator. |
| Section 11 | Water Quality and Stormwater | Compliance / Comments |
| Criteria 1 | The 1 in 20 year storm event (i.e. 5% Annual Exceedance Probability (AEP)) is to be accommodated within a piped stormwater system. | Complies. The existing stormwater system can accommodate a 1 in 20 year storm event. |
| Criteria 2 | The design and layout of leased areas, including the siting of buildings and the positioning of bunded areas and container stacks, is to take into consideration the need to provide unobstructed stormwater overland flow paths. | Complies. The proposal does not alter the overall site arrangement and layout is not changed through the construction of the facility tanks. |
| Criteria 3 | The first flush from impervious areas is to be captured and treated to prevent pollutants | Complies. Impervious areas will be tested/treated to |

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| | from entering Botany Bay. Pollutants to be removed must include sediments, litter, rubbish, oils, greases and other hydrocarbons. | ensure pollutants do not leave the site. First flush pit system accommodates stormwater events including the truck driveway areas. |
| Criteria 4 | First flush stormwater (treated or otherwise) is not permitted to be discharged to Penrhyn Estuary or the Estuary flushing channel (Figure 18). | Complies. The proposal will apply the current stormwater management practices to the subject area and will not discharge to the Penrhyn estuary and are distinctly separate. |
| Criteria 5 | Stormwater leaving the site is not to create erosion within Penrhyn Estuary. | Complies. The proposal will apply the current stormwater management practices to the subject area and will not create erosion of the estuary. |
| Criteria 6 | Measures to contain spills and prevent them from discharging through the stormwater system are to be identified and spill response procedures documented. | Complies. The proposal will apply the current stormwater management practices to the subject area. |
| Criteria 7 | Emergency spill kits are to be available on-site and staff are to be trained in how to use them. | Complies. Absorbent emergency spill kits will be located near operational activities. Staff are currently trained in appropriate emergency procedures. Spill procedures are noted in Section 3.4.2 of the REF. |
| Section 12 | Air Quality | Compliance / Comments |
| Criteria 1 | Site areas which are trafficked by vehicles and trucks are, as a minimum, to be sealed to minimise dust generation. | Complies. Areas trafficked by vehicles are sealed. |
| Criteria 2 | Information regarding the products to be stored and/or handled on the premises is to be provided as well as the proposed storage area for such products. Products handled on site which have an offensive odour are to be handled in a closed circuit or sealed system. | Complies. The storage and handling of bitumen will be sealed and/or treated by either vapour balancing or combustion technology. |
| Criteria 3 | Vehicles, plant and equipment are to be maintained and operated in good working condition and are to be turned off when not in use to minimise emissions to air. | Complies. All equipment on site is appropriately maintained to minimise air emissions and energy usage. |
| Criteria 4 | Building materials that may potentially contribute to poor internal air quality, such as those generating formaldehyde or those that may create a breathing hazard in the case of fire (e.g. polyurethane), are to be avoided. | Complies. Building materials will avoid those that generate formaldehyde or similar combustion products in the case of fire. |
| Criteria 5 | Air filters are to be installed in all ventilation systems to remove particulate contamination. | Complies. Air conditioners will be small but will have air filters. |
| Criteria 6 | All development is to incorporate measures to minimise emissions that adversely impact on | Complies. Commentary on air quality is contained in |

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| | local air quality. | Section 6.5.3 of the REF. |
| Criteria 7 | Any emissions of smoke, dust, particulate matter, steam or gas must meet Civil Aviation Safety Authority (CASA) / Air Services Australia (ASA) requirements. | Complies. Commentary on air quality is contained in Section 6.5.3 of the REF. |
| Section 13 | Bird Management | Compliance / Comments |
| Criteria 1 | An assessment of aspects of the proposed development which could attract bird species that may pose a hazard to airport operations is to be provided as part of the application for development. The assessment is to include any mitigation measures to be implemented. Aspects to be considered include potential for roosting on roofs, lights poles, site areas having low levels of activity, areas where water may pond, etc. | Complies. Existing measures for bird management will be applied to the proposal, where applicable. |
| Criteria 2 | Height restrictions in Figure 1 are required to be complied with unless a shorebird impact assessment is undertaken which confirms that there is no adverse impact on shorebird access or use of Penrhyn Estuary. | Complies. The height of the tanks complies with the Code. |
| Criteria 3 | No terminal operations (except for road access / egress) are permitted within 20m of the western edge of Penrhyn Estuary. | Complies. The proposed works are within the lease area and are greater than 1,000m from the estuary. |
| Criteria 4 | Container stacks, buildings and tanks are to be set back at least 100m from the western edge of Penrhyn Estuary and 64m from the southern edge of Penrhyn Estuary. | Complies. The proposed works are within the leased area of the site and are greater than 1,000m from the estuary. |
| Section 14 | Noise and Vibration | Compliance / Comments |
| Criteria 1 | For all new developments, proponents are to identify: <ul style="list-style-type: none"> - relevant noise criteria based on the DECC guidelines, - all sources of noise, - noise emission levels, and - proposed mitigation measures. | Complies. The proposal will comply with all relevant guidelines. Section 6.5.4 of the REF details the acoustic impact of the proposal. |
| Criteria 2 | All buildings, equipment and operational processes are to be selected or designed to minimise the emission of noise. | Complies. The proposal will meet all operational noise goals and no mitigation measures were determined to be required. |
| Criteria 3 | Noise reduction measures for mobile equipment, trucks, other vehicles and machinery are to be implemented, such as through insulation, alternative reversing alarms and 'engine off' policies. | Complies. The proposal will meet all operational noise goals through appropriate on site management of machinery and trucks. |
| Criteria 4 | Noisy plant and equipment should be located as far as possible from noise sensitive areas, optimising attenuation effects from topography, natural and purpose built | Complies. The proposal will meet all operational noise goals and no mitigation measures were determined |

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| | barriers. | to be required. |
| Criteria 5 | Within three (3) months of completion of the development the applicant is to provide evidence to Sydney Ports of compliance with the relevant noise criteria for the development. | Noted. |
| Criteria 6 | Vibration transmitted outside the site during operations must be within acceptable limits based on DECC guidelines. | Complies. All relevant guidelines are complied with as per section 6.5.4 of the REF. |
| Section 15 | Soil Contamination | Compliance / Comments |
| Criteria 1 | For all development a soil and groundwater contamination assessment is to be undertaken as part of the application for development. Where a contamination hazard is deemed possible, approved mitigation / remediation measures are to be undertaken. This is to be generally in accordance with the DECC's <i>Guidelines for Consultants Reporting on Contaminated Sites</i> . | Complies. The extent of site excavation is anticipated to be maximum of approximately 1,200 mm for shallow trenching and tank bases and accordingly the extent of soil disturbance is minimal. |
| Section 16 | Groundwater Management Zone (Elgas Deed) | Compliance / Comments |
| Criteria 1 | The Groundwater Management Zone (GMZ) associated with the Elgas LPG Storage Cavern is illustrated at Figure 19 . Any development within the area marked 'GMZ(B)' is required to comply with the ' <i>Groundwater Management Zone Deed</i> ' between the Water Administration Ministerial Corporation, Sydney Port Corporation, Elgas Limited and the Marine Ministerial Holding Corporation (NSW Maritime). A copy of the Deed is available on request from Sydney Ports Corporation | Complies. The proposal will comply with the Groundwater Management Zone Deed as the site is located in GMZ(B) and excavation is limited to approximately 1,200 mm. |