External Inspection Components

Compound Priorities and Image Examples

The ‘Compound’ component is to be used to rate the security of the reservoir site, but not including the actual reservoir itself. Comments are to refer to the access by unauthorised people on the property, up to the reservoir

Issues that are attached to the compound component are things such as unauthorised access to site, evident by broken fences and vandalism, as well as less security-based issues such as large amounts of industrial rubbish, broken pipes, spoil etc.

Any Compound that is given a rating other than PR4 needs to be accompanied with a comment and a photo of the specific issue.
The comment structure should be ‘type of issue, severity of issue, and location’.
Example: “Section of the compound fence has been vandalised allowing people to access through the fence”

Priority Rating	Reason	Example Comment
PR0		
PR1	A component of the compound security has been completely damaged or removed allowing full access onto grounds. Evidence of access up to reservoir.	A section of the fence has fallen down. Unauthorised personnel are able to walk onto the reservoir grounds. Graffiti on reservoir wall shows access by unauthorised personnel
PR2	Damage to compound caused by persons with intent to access property supported by evidence such as graffiti.	Damage to security fence by unauthorised personal trying to get in.
PR3	Security issue created unintentionally such as tree growth or design issues. Compound is not completely clear of other objects.	The fence has a lot of tree overgrowth which could give easy site access to vandals
PR4	No evidence of access to compound by unauthorised persons. No rubbish or other materials in compound.	Appears to be in good order

PRIORITY PHOTO EXAMPLES

PRIORITY 1

Graffiti on lower wall indicates unauthorised entry to site

PRIORITY 1

Unsecured fence, ‘walk through’ section

PRIORITY 1

Unsecured fence, ‘climb through’ section

PRIORITY 2

Unsecured fence, ‘climb through’ section

PRIORITY 2

Overhanging trees, make climbing over possible

PRIORITY 2

Poorly fitted gates make access easy

Vandalism Priorities and Image Examples

The ‘Vandalism’ component is to be replaced with ‘Security of Reservoir’. This is used to raise issues in regards to unauthorised access onto the actual reservoir. For example, graffiti has been sprayed on rooftop therefore it is evident that unauthorised access to rooftop is occurring. Any vandalism that occurs that has caused damage to the reservoir is to be attached to the individual component it involves.

If there is evidence of unauthorised access into the reservoir itself it is to be given a high priority due to the safety issues associated.

Any ‘security of reservoir’s that is given a rating other than PR4 needs to be accompanied with a comment and a photo of the specific issue.
The comment structure should be ‘type of issue, severity of issue, and location’.
Example: “Graffiti on reservoir rooftop evidence of unauthorised access”

Priority Rating	Reason	Example Comment
PR0	Evidence of entry inside of reservoir by unauthorised personnel	Hatch lid has been fully removed allowing for easy access inside reservoir
PR1	Evidence of attempted entry into reservoir	Entry hatch lock has been damaged
PR2	Evidence of access to reservoir roof	There is graffiti on the reservoir roof, evidence of frequent access by unauthorised personnel
PR3	Evidence of attempted access to rooftop	Security wire above ladder has been cut but no evidence that access to rooftop has been achieved
PR4	No sign of access to reservoir	Appears to be in good order

PRIORITY PHOTO EXAMPLE

PRIORITY 1

Unsecured hatch cover

PRIORITY 2

Graffiti on roof indicates unauthorised entry

PRIORITY 2

Graffiti on roof indicates unauthorised entry

PRIORITY 3

Vandalised security wires and graffiti

External Wall Priorities and Image Examples

The ‘Walls’ component is to be used to focus on the structural condition of the reservoir walls. If vandalism has occurred a comment should be included, however, it will affect the priority rating only if it has altered the structural condition of the wall.

For example, if graffiti has been sprayed onto the wall this comment will be attached to the wall component but should not be used to alter the priority rating. If, however, the graffiti has been scratched into the wall, damaging the existing protective coating, the comment will be attached to the wall component as well as being used to help determine the priority rating.

Other issues include coating breakdown, corrosion, concrete cracking and spalling etc.

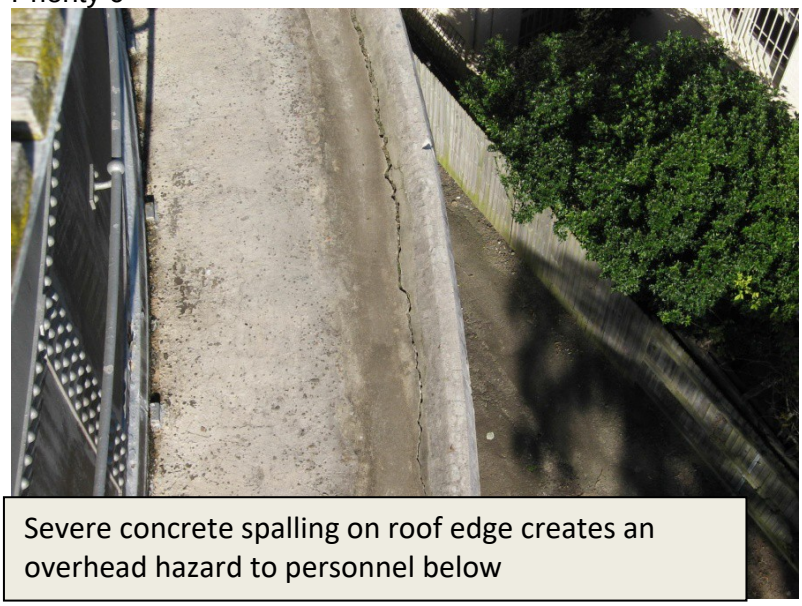
Any external wall that is given a rating less than PR4 needs to be accompanied with a comment and a photo of the specific issue.
The comment structure should be ‘type of issue, severity of issue, and the location’
Example: “Large amount of concrete spalling has exposed reo on the bottom strake”

Priority Rating	Reason	Example Comment
PR0	Immediate safety issue due to structural failure	A large piece of concrete soffit ready to break away and fall to the ground.
PR1	50% or more of the wall has coating failure and surface corrosion and/or pitting corrosion is present. Concrete spalling with reo visible.	Complete failure of coating on wall. Large amounts of heavy pitting corrosion have occurred The reo is visible due to large amounts of spalling.
PR2	Less than 50% of the wall has coating failure and surface corrosion Some spalling concrete but reo isn’t visible	Some coating failure has occurred but only surface corrosion is visible. Signs of concrete spalling but not enough to expose reo.
PR3	Coating defect no corrosion evident. Allowance for some staining. Minor cracks appear in concrete	Some delamination and cracking have occurred but no corrosion visible. Small cracks can be seen in the concrete.
PR4	No defects.	Appears to be in good order

Priority 0

Severe concrete spalling on roof edge creates an overhead hazard to personnel below

Priority 0



Severe concrete spalling on roof edge creates an overhead hazard to personnel below

Priority 1

Concrete spalling and corroded rebar indicates serious structural issues have developed

Priority 1

Heavy corrosion on steel wall base

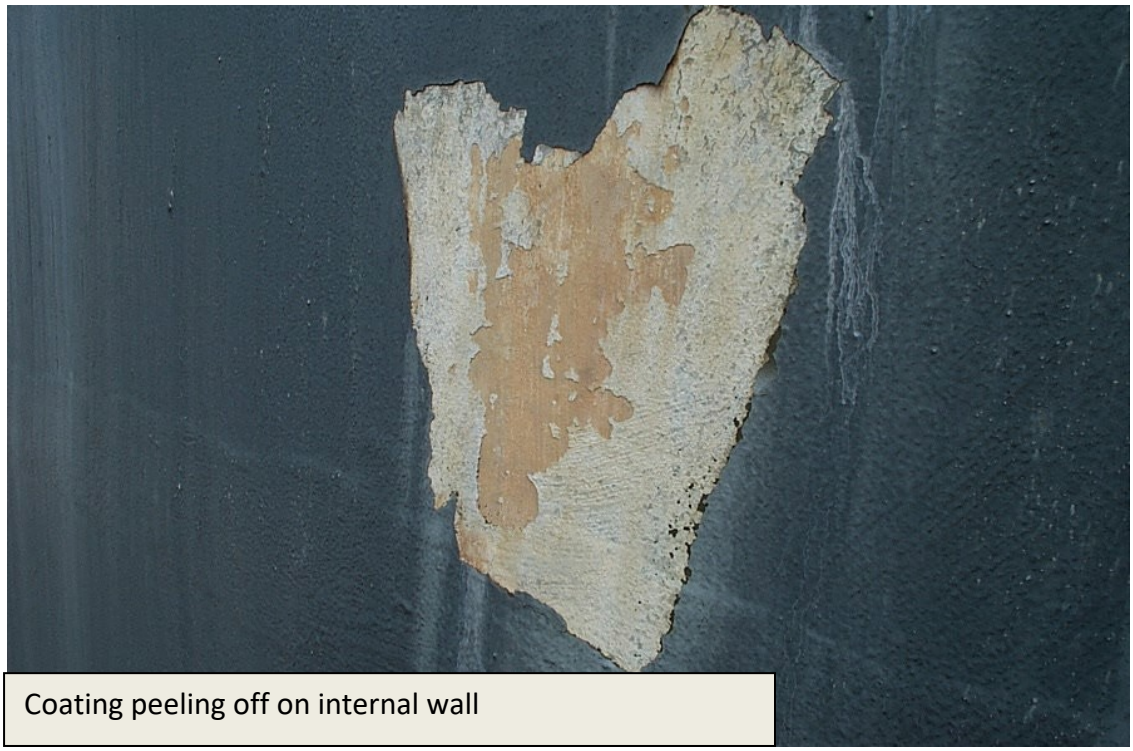
Priority 2

Corrosion on sketch plate and concrete spalling

Priority 2

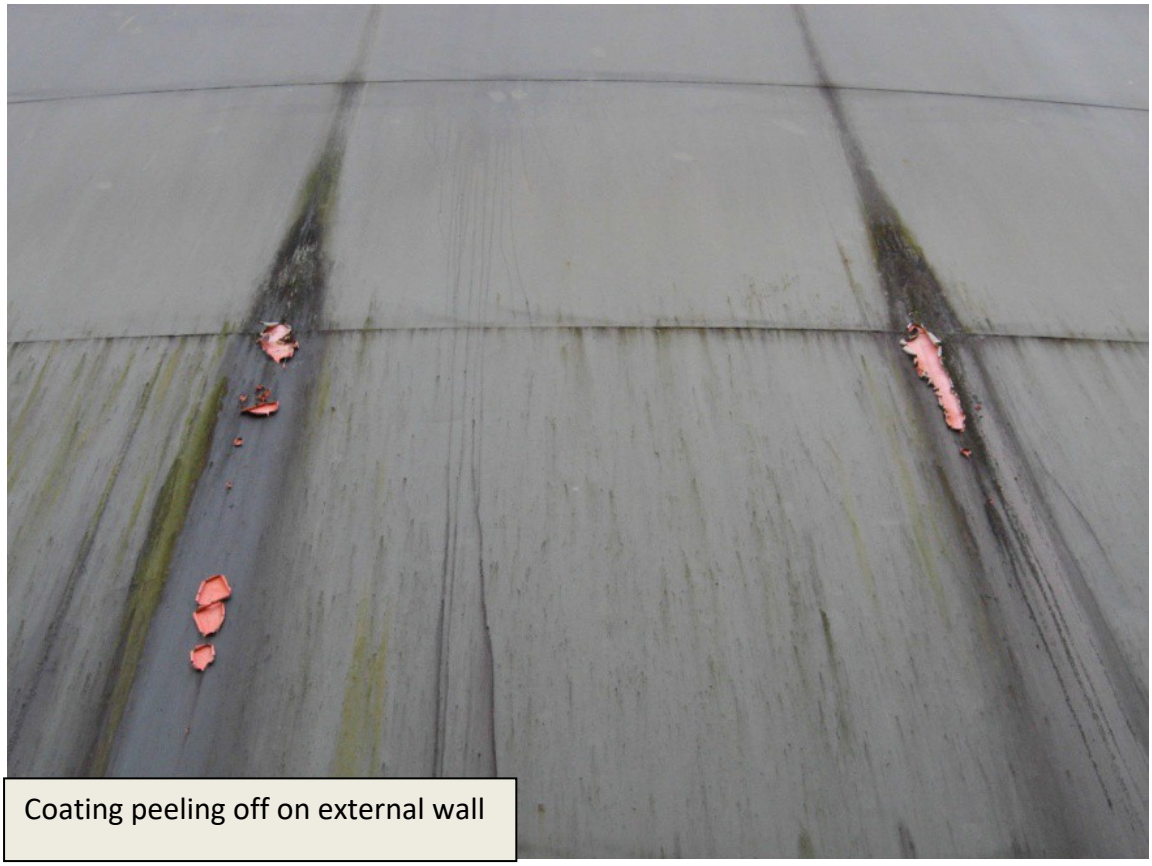
Wall coating damaged and corrosion present

Priority 2



Coating peeling off on internal wall

Priority 3



Coating peeling off on external wall

External Ladder Priorities and Image Examples

The ‘Ladder External’ component is to be used to rate the structural condition of the ladder. Issues relating to unauthorised access to reservoir will be captured against the ‘Vandalism’ component which will be changed to ‘Security of Reservoir’.

Safety issues due to the design of the ladder are to be captured in the ‘Safety’ screen. If this is the case a photo of the design defect is required.
Example of Safety Issue – ‘The external ladder has been made unsafe to climb by the addition of a poorly designed and installed cabling system – this accessory creates more safety problems than it solves’

Typical issues that are attached to the ladder external component are corrosion occurring, coating failure, concrete spalling etc.

Any ladder external that is given a rating less than PR4 needs to be accompanied with a comment and a photo of the specific issue.
The comment structure should be ‘type of issue, severity of issue, and the location’.
Example: ‘heavy pitting over half of the ladder rungs’

Priority Rating	Reason	Example Comment
PR0	If the ladder is to unsafe due to its structural integrity and cannot be used.	Complete failure of ladder rungs, unable to take any load.
PR1	50% or more of the external ladder has coating failure and surface corrosion. And/or pitting corrosion is present. Concrete spalling with reo visible	Complete failure of coating on ladder with surface corrosion on rungs. A large amount of heavy corrosion has occurred on the ladder platform. Spalling has occurred and the reo is visible.
PR2	Less than 50% of ladder has coating failure and surface corrosion. No pitting present. Concrete spalling no reo visible.	Some coating failure has occurred but only surface corrosion is visible. Signs of concrete spalling but not enough to make reo exposed.
PR3	Coating defect no corrosion evident. Allowance for some staining. Minor cracks appear in concrete.	Some delamination and cracking of the coating has occurred but no corrosion visible. Small cracks are present but no spalling visible.
PR4	No defects present.	Appears to be in good order

PRIORITY PHOTO EXAMPLES

Priority 1

Concrete spalling and exposed rebar

Priority 1

Severe corrosion present

Priority 2

Significant Corrosion present

Priority 3

Coating delamination- will soon become a Priority 2

Entry Hatch Priorities and Image Examples

The ‘Entry Hatch’ component is used to comment on the structural condition of the hatch that has been designed for entry into the reservoir by personnel. It includes the hinges, safety screen, lid and the frame of the opening.

Issues that are attached to the entry hatch component are things such as corrosion of the different parts, hinges broken, lid has been bent or is unsealed etc.

Safety issues due to design only will be given a rating of PR4 with a comment and a photo describing the defect. Also, the ‘Entry Hatch’ rating on the ‘Safety’ screen is to be changed to ‘Poor’.

Any entry hatch that is given a rating other than PR4 needs to be accompanied with a comment and a photo of the specific issue.
The comment structure should be ‘type of issue, severity of issue and location’.
Example: “Both hinges have severely corroded, affecting the ability to open the hatch”

Priority Rating	Reason	Example Comment
PR0	Direct safety issue to personnel, both when opened and closed. Component failed causing access issues.	Significant corrosion has extensively weakened hatch cover, will not support personnel. Hinge has broken allowing access to internal of reservoir.
PR1	50% or more of the hatch has coating failure and surface corrosion and/or pitting corrosion is present	Complete failure of coating on hatch with surface corrosion occurring. A large amount of heavy corrosion has occurred on the hinges.
PR2	Less than 50% of hatch has coating failure and surface corrosion.	Some coating failure has occurred. Only surface corrosion is visible
PR3	Coating defect no corrosion evident. Allowance for some staining.	Some delamination and cracking have occurred but no corrosion visible.
PR4	No defects	Appears to be in good order
PR4- Design Defect	Design defect only	Lid opens towards personnel, creating obstacle to climb over for access internally

PRIORITY PHOTO EXAMPLES

PRIORITY 0

Hinges are broken and cover is not secure

PRIORITY 0

Hinges are broken and cover is not secure

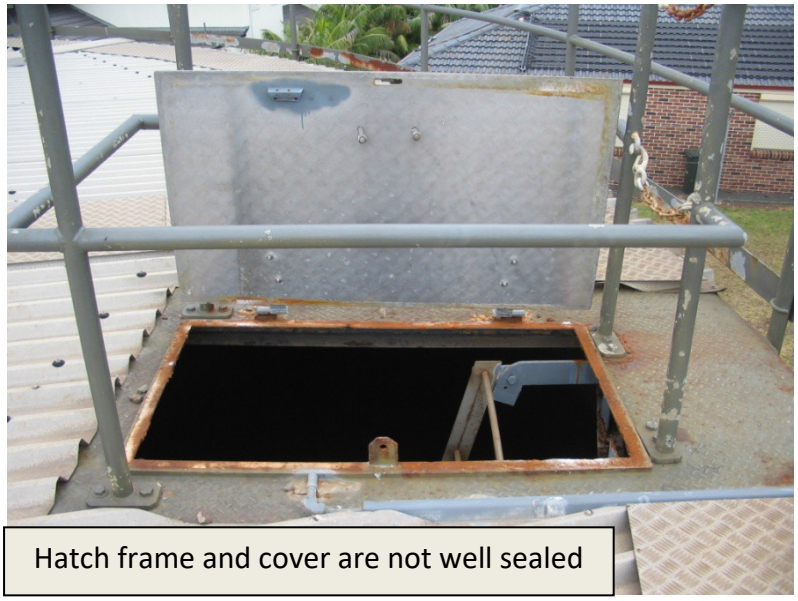
PRIORITY 1

Cover is not sealed around the edges

PRIORITY 1

Cover is not sealed around the edges

PRIORITY 2



Hatch frame and cover are not well sealed

PRIORITY 3

Entry hatch is too small for safe entry and exit

PRORITY 3

Hatch covers have to be stepped over to enter and exit the tank. Possibly not well sealed where they fit together

Roof Platforms Priorities and Image Examples

The ‘Roof Platforms’ component is used to comment on the areas that are walked and worked on but are also structural members of the reservoir roof. Not to be confused with walkways which offer no structural support to the roof.

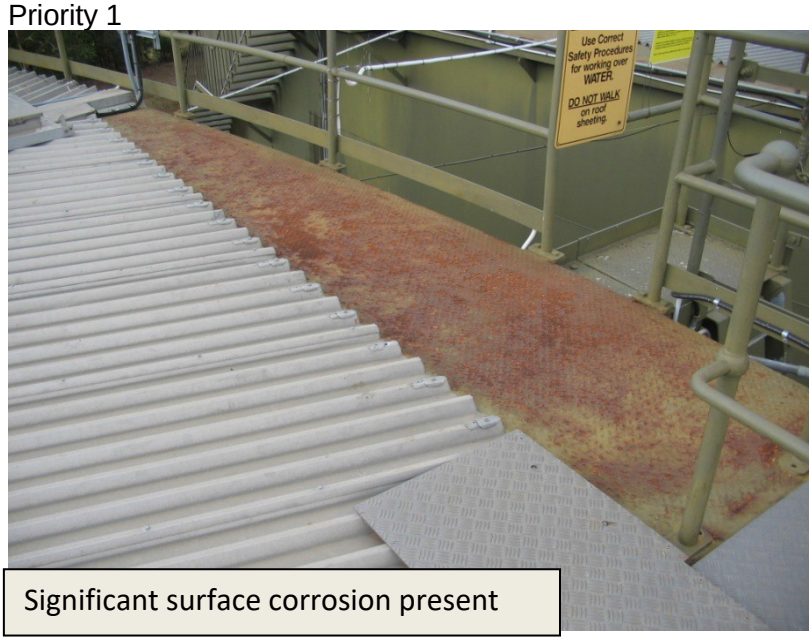
Examples of issues that are attached to the roof platform component are things such as coating breakdown, various degrees of corrosion and concrete cracking/spalling.

Any roof platforms that are given a rating other than PR4 needs to be accompanied with a comment and a photo of the specific issue.
The comment structure should be type of issue, severity of issue, and then the location.
Example: “surface corrosion over 50% of platform”

Priority Rating	Reason	Example Comment
PR0	Immediate safety issue to personnel due to defect.	Steel sheet severely corroded, unable to support any load
PR1	50% or more of platform area has coating failure and surface corrosion. Pitting corrosion is present	Complete failure of coating on roof platform with surface corrosion present. Large amounts of heavy corrosion have occurred.
PR2	Less than 50% of platform area has coating failure and surface corrosion	Some coating failure has occurred. Only surface corrosion visible, no pitting has occurred.
PR3	Coating defect no corrosion evident. Allowance for some staining.	Some delamination and cracking have occurred but no corrosion is visible.
PR4	No defects	Appears to be in good order

PRIORITY PHOTO EXAMPLES

Priority 1

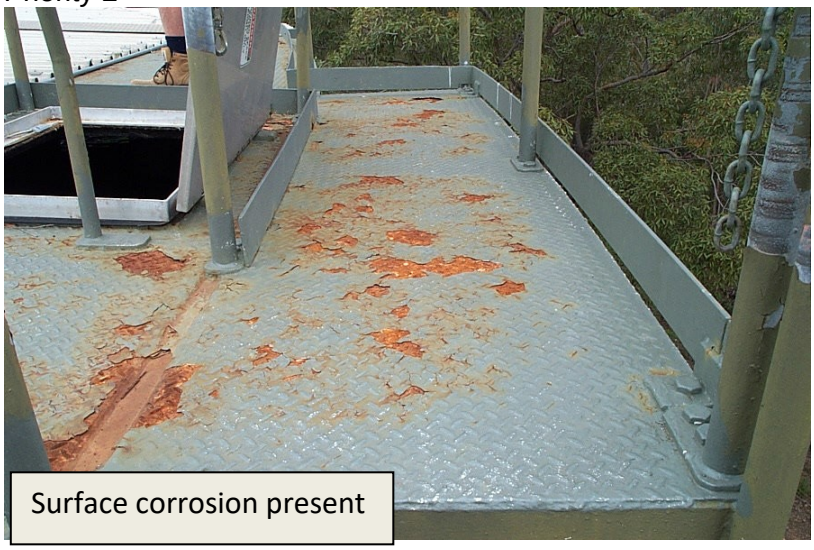


Significant surface corrosion present

Priority 1 possibly a 2

Significant surface corrosion present

Priority 2



Surface corrosion present

Priority 2

Surface corrosion present

Priority 2

Corrosion debris ponding around sealed kick rail

Priority 3

Coating deterioration

Walkways Priorities and Image Examples

The ‘Walkways’ component is used to comment on the walkways that have been installed to make it easier to walk around on the reservoir rooftop. The walkways do not give any structural support to the reservoir roof.

Typical issues for the walkway component are loose or missing plate, missing screws/rivets, build-up of foreign material etc.

Any walkway that is given a rating other than PR4 needs to be accompanied with a comment and a photo of the specific issue.
The comment structure should be ‘type of issue, severity of issue, and location’.
Example: “A section of the checkered sheeting is missing”

Priority Rating	Reason	Example Comment
PR0	Significant safety issue to personnel	Checkered plate flips up when stepped on, could cause injury to personnel.
PR1	Complete failure of component, component missing	Checkered plate missing. Checker plate able to be removed due to missing screws.
PR2	Minor defect such as missing surface corrosion, coating breakdown, missing screws/rivets	Coating on walkway is failing.
PR3	Possibly use to comment on buildup of debris/material that will create a corrosive environment and/or water quality issues	
PR4	No defects	Appears to be in good order

PRIORITY PHOTO EXAMPLE

PRIORITY 1

Walkway sheeting missing

PRIORITY 2

Coating deterioration

PRIORITY 3

Regular maintenance required to remove leaf debris

Roof Priorities and Image Examples

The ‘Roof’ component is used to comment on the roof sheeting condition.

Issues such as coating failure, corrosion, missing rivets and screws and dents caused by vandalism and others, on the roof sheeting is to be captured here.

Priority is to be determined by the structural condition of the sheeting. If water quality issues occur due to the condition of the roof sheeting this may help raise the priority rating.

Any ‘Roof’ component that is given a rating other than PR4 needs to be accompanied with a comment and a photo of the specific issue.
The comment structure should be ‘type of issue, severity of issue, and location’.
Example: “A number of large punctures in the roof sheeting”

Priority Rating	Reasons	Comment Example
PR0	Immediate safety issue due to structural failure	Corrosion of roof sheeting is severe, will not support personnel. Missing section
PR1	50% or more of the roof sheeting has coating failure and surface corrosion and/or pitting corrosion is present. Large section of roof sheeting unsecured Concrete spalling with reo visible.	Heavy corrosion along edge of sheeting. Section of roof sheeting not secured due to missing screws. Concrete spalling with reo visible.
PR2	Less than 50% of the roof sheeting has coating failure and surface corrosion. Roof sheets not secured fully. Some spalling concrete but reo isn’t visible	Isolated section of surface corrosion. A number of screws missing, roof sheeting not fully secured. Some spalling concrete but reo isn’t visible
PR3	Coating defect no corrosion evident. Allowance for some staining. Depressions in sheets. Minor cracks appear in concrete	Coating has cracked and peeling. No corrosion is present. Some locations the sheets have depressions. Minor cracks appear in concrete
PR4	No Defects	Appears to be in good order

PRIORITY PHOTO EXAMPLES

PRIORITY 1

Roof sheet edges corroded and unsealed

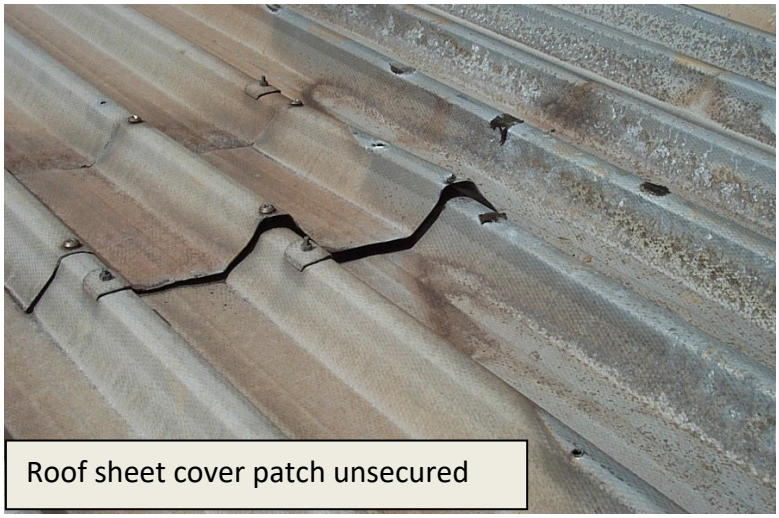
PRIORITY 1

Roof sheet edges corroded and unsealed

PRIORITY 1

Roof sheet edges unsecured and unsealed

PRIORITY 2



Roof sheet cover patch unsecured

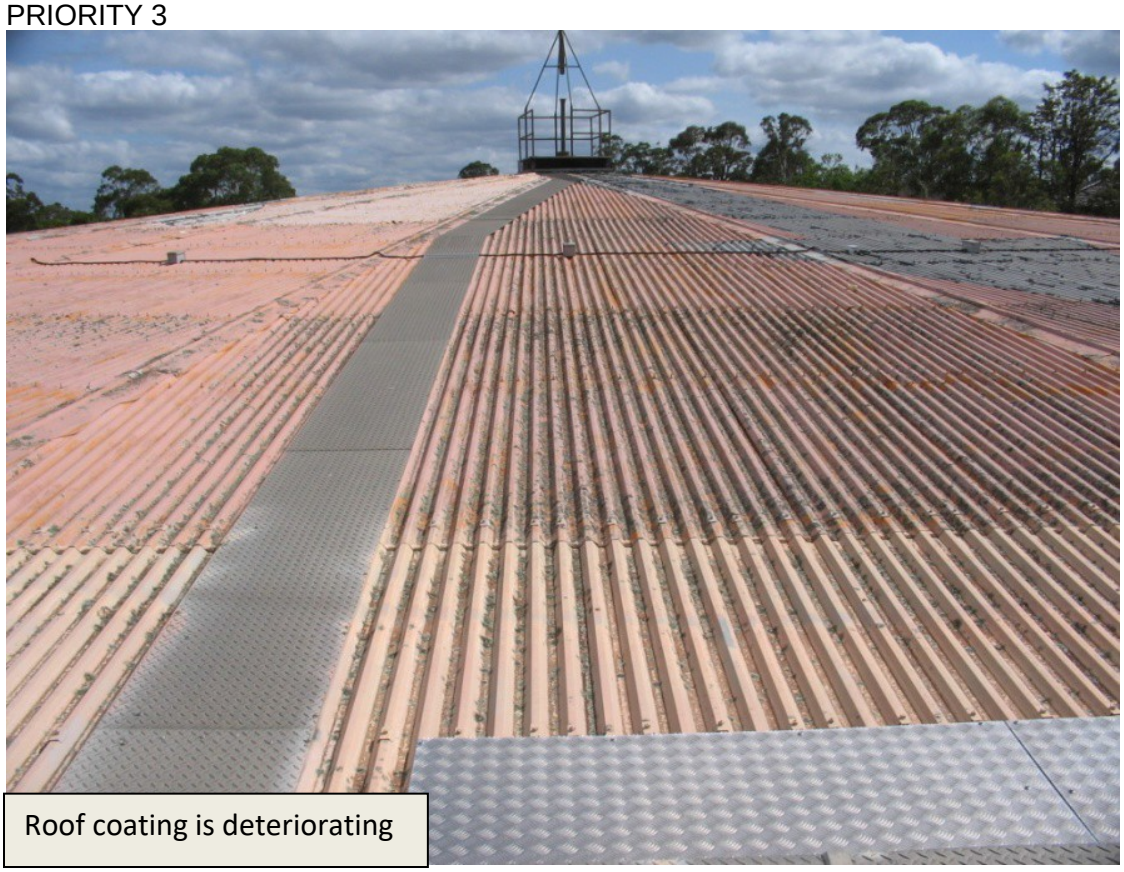
PRIORITY 2

Steel roof coating deteriorating

PRIORITY 2

An impact damaged area and possibly unsealed

PRIORITY 3



Roof coating is deteriorating

Roof Hatch Priorities and Image Examples

The ‘Roof Hatches’ component is used to comment on the structural condition of the hinges, safety screen, lid and the frame of the opening for all hatches besides the entry hatch. May include the equipment hatch, the dosing hatch etc.

Issues that are attached to the roof hatches component are things such as corrosion of the different parts, hinges broken, lid has been bent etc.

Safety issues due to design only will be given a rating of PR4 with a comment and a photo describing the defect. Also, the ‘Rescue Hatch’ rating on the ‘Safety’ screen is to be changed to ‘Poor’.

Any roof hatch that is given a rating other than PR4 needs to be accompanied with a comment and a photo of the specific issue.
The comment structure should be ‘type of issue, severity of issue, and location’.
Example: “Both hinges have severely corroded affecting the ability to open the equipment hatch”

Priority Rating	Reason	Example Comment
PR0	Direct safety issue to personnel, both when opened and closed. Component failed causing access issues.	Significant corrosion has extensively weakened hatch cover, will not support personnel. Hinge has broken allowing access to internal of reservoir.
PR1	50% or more of the hatch has coating failure and surface corrosion and/or pitting corrosion is present	Complete failure of coating on hatch. A large amount of heavy corrosion has occurred on the hinges.
PR2	Less than 50% of hatch has coating failure and surface corrosion.	Some coating failure has occurred. Only surface corrosion is visible
PR3	Coating defect no corrosion evident. Allowance for some staining.	Some delamination and cracking have occurred but no corrosion visible.
PR4	No defects	Appears to be in good order
PR4- Design Defect	Design defect only	Lid is extremely heavy and awkward for personnel to open

PRIORITY PHOTO EXAMPLES

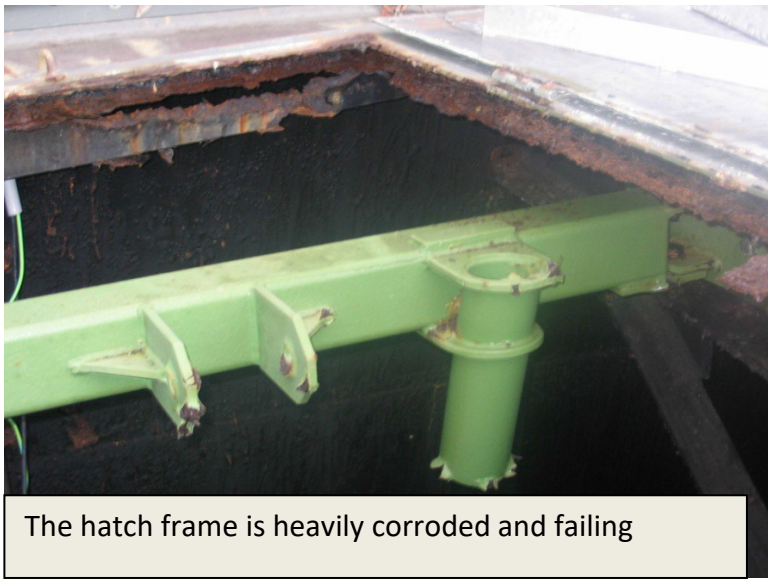
PRIORITY 0

Hinges are broken and hatch cover can be easily opened

PRIORITY 0

The safety mesh is heavily corroded and not ‘fit for purpose’

PRIORITY 1



The hatch frame is heavily corroded and failing

PRIORITY 1

The hatch frame is corroded and unsealed

PRIORITY 2

The frame and hinges are corroded

PRIORITY 2

The frame and cover are corroded

PRIORITY3

The fixings on the cover are corroded and becoming unsecure

PRIORITY3

There is surface corrosion on the cover and surroundings

Handrails Priorities and Image Examples

The ‘Handrails’ component is to be used to focus on the structural condition of the handrail and not to identify the handrail section opposite the davit area needing to be replaced solely due to design issues. Safety issues not relating to the design is to be picked up and supported with appropriate photo for the issue.

If a safety issue is created due to poor condition on a defective design, i.e. improper repair of chain gate at davit area, then it is to be given a rating of PR0. But if the safety issue is only related to the defective design yet the component is in good condition it is to be awarded a PR4 rating with a comment stating the issues with the defective design.

Any handrail that is given a rating less than PR4 needs to be accompanied with a comment and a photo of the specific issue.
The comment structure should be type of issue, severity, and location.
Example: “deep pitting at the connection between the post and bottom railing”

Priority Rating	Reason	Example Comment
PR0	Significant safety issue due to condition of component, failure of component	Completely corroded through. Damage caused by tree falling.
PR1	50% or more of the handrail, from post to post, has coating failure and surface corrosion. And/or pitting corrosion is present.	Complete failure of coating with surface corrosion over majority of the handrails. A large amount of heavy corrosion has occurred.
PR2	Less than 50% of the handrail, from post to post, has coating failure and surface corrosion only.	Some coating failure has occurred with only minimal surface corrosion visible, no pitting has occurred.
PR3	Coating failure defect no corrosion evident. Allowance for surface corrosion.	Some delamination and cracking of the coating has occurred but no corrosion visible.
PR4	No defects	Appears to be in good order
PR4 – Design Defect	Good condition but poor design	Chain at davit gate but is in good condition

PRIORITY PHOTO EXAMPLES

Priority 1

The top hand rail is structurally unsound

Priority 1

The handrail base is structurally unsound

Priority 2

The corrosion will soon lead to more serious issues. It needs to be patch repaired

Priority 3

Patch repairs are required

Priority 3

Patch repairs are required

Ventilation Priorities and Image Examples

The ‘Ventilation’ component is used to comment on the structural condition of the vents that have been installed. Such as corrosion of hold down screws, damage caused by vandalism etc.

If the structural condition allows bird or vermin to enter the reservoir then this information is to be added to the bird proofing component.

Any ventilation that is given a rating other than PR4 needs to be accompanied with a comment and a photo of the specific issue.
The comment structure should be ‘type of issue, severity of issue, and location’.
Example: “there is a large hole in the mesh screen of the vent at the centre of the reservoir”

Priority Rating	Reason	Example Comment
PR0	Significant and immediate safety risk to personnel due to defect	Ventilation has collapsed resulting in opening
PR1	Part of the ventilation has failed. Major defect such as mesh screen needs replacing	Wire mesh screen has corroded and a large opening has formed.
PR2	Minor defect, such as small number of missing screws/rivets, coating failure with minimal to no corrosion	The centre roof vent has been damaged and poorly repaired. It is currently not sealed against contamination or providing any effective air flow. The plastic mesh has gaps present where it is joined
PR3		The centre roof ventilation flashing is loose and needs refixing to prevent further wind damage
PR4	No defects	Appears to be in good order

PHOTO PRIORITY EXAMPLES

PRIORITY 1

The vent has been vandalised, poorly repaired and is unsealed

PRIORITY1

The vent mesh is missing and creates a bird entry area

PRIORITY 1

The vent is unsealed on the side areas

PRIORITY 2

The mesh has been impacted and is no longer sealed

PRIORITY 2

The vent is poorly secured and will blow off in a strong wind event

PRIORITY 2

The mesh is poorly secured

Bird Proofing Priorities and Image Examples

The ‘Bird Proofing’ is used to comment and prioritise the components when it comes to birds and vermin entering the reservoir causing water quality issues.

Any sign of possible bird or vermin entry on any part of the reservoir is to be captured here. Typical issues are mesh over vents have been damaged, evidence of birds entering the reservoir etc

Any bird proofing that is given a rating less than PR4 needs to be accompanied with a comment and a photo of the specific issue.

The comment structure should be ‘type of issue, severity of issue, and the location’ Example: “Large gap between roof sheeting and platform may allow birds to enter reservoir”

Priority Rating	Reason	Example Comment
PR0	Birds or vermin found inside reservoir.	Dead vermin found in reservoir
PR1	Evidence of bird or vermin entry into the reservoir	A bird nest is inside the reservoir next to the entry hatch.
PR2	Structural condition defects allowing possible bird or vermin entry	Hole in mesh screen over ventilation may allow birds to enter reservoir.
PR3	Design defect allowing possible bird or vermin entry	Small birds could possibly enter the tank past the side wall vents
PR4	No defects.	Appears to be in good order

PRIORITY PHOTO EXAMPLE

Priority 0

A wombat has gained entry, possibly through a hatch left open at some time

PRIORITY 1

A bird nest indicates entry, usually close by to this area

PRIORITY 1

Birds roosting here are possibly gaining entry to the tank

PRIORITY 2

The broken mesh allows small bird entry

PRIORITY 2

The unsealed roof edges allow vermin entry

PRIORITY 2

The open davit base will allow vermin entry

PRIORITY 2

Birds and vermin can easily land and enter here