

The following nine areas have been targeted to provide a benchmark overview of the asset condition and to identify potential problems that may occur if maintenance is not carried out:

- Security
- Contamination
- Safety
- Confined spaces
- Carbonation (deterioration of concrete structures)
- External Structural condition
- External Protective Coatings
- Internal Structural condition
- Internal Protective Coatings

Each area is given a priority number (based on years) that can be used to compare conditions between similar assets - some sections will also influence others, due to parallel areas of interest.

- **Security** relates to the possibility of unauthorised tank access - this can directly relate to Contamination and Structural issues if vandals are accessing the structure.
- **Contamination** refers mainly to vermin entry, dust, debris or storm water entering the storage from unsealed areas.
- **Safety** includes all features that may cause injury, and is influenced by **Confined Space** issues in some cases.
- **Structural** condition can be directly affected by deterioration of walls, roof framing, support posts etc or by defects in the protective **Coating** or a high **Carbonation** percentage.
- **Carbonation** is expressed as a percentage between remaining sound, alkaline concrete and steel cover depth, with 100% carbonation meaning the steel is fully exposed to the surrounding environment.

By using these benchmarks, an average life span and working environment can be predicted, allowing preventative measures to be taken before serious damage or personal injury occurs.

Priority numbers and Status indicators are also placed on each External and Internal item inspected, to create a target and time schedule for planned maintenance.

There are 8 standardised categories available to distinguish between ratings: 0A, 1A, 2A, 2F, 3F, 3D, 4F, 4D.

ASAM Time Based Priority Ratings		
Colour	Priority rating	Definition
	0	Urgent attention required: Personnel safety is compromised carrying out routine operations; water quality places the consumers at risk; structural defects requiring costly reinstatement if left unattended.
	1	1 year : Is in poor condition or otherwise non functional Will not place the day-to-day operations at risk. Dealing with security, safety, water quality and structural defects likely to cause further damage if not rectified within one year.
	2	2 years : Item is to receive precedence during maintenance Coating defects, entry hatches, platforms, safety rails, roofing, ladders, pipework and supports.
	3	3 years : Item is functional but is deteriorated/not in operational order Structural and coating maintenance to preserve the effective asset life. Additions that can be carried out as finances permit.
	4	4 years : Item is in good condition Items likely to remain structurally sound for at least 4 years, based on past experience of the asset. Includes roofing, ventilation, vermin proofing and concrete structures in good condition.
Status Indicators		
	A	Attention is required
	F	Re-assessment or monitoring is required (Flagged)
	D	Deferred until the next inspection
8 Standardised Categories To Distinguish Ratings		
	0A	Urgent works required. Consider taking tank off line until rectification works can be completed. (eg. Roof or ventilation holes, bird activity and faecal material in tank)
	1A	Priority of works required (eg. Entry hatch without a raised or sealed edge, allowing roof drainage to enter)
	2A	Works required to fix an issue before it escalates to a more urgent level (eg. Roof sheets unsecured at edge)
	2F	An issue has been identified and requires planning (eg. The entry hatch is made of light weight material and could be damaged by determined persons)
	3F	An issue with the item has been noted and needs to be planned for future works (eg. handrails are showing signs of corrosion, but not impacting the structure)
	3D	An issue has been noted but rectification works unlikely to be performed within 3 years (eg. slight weepage noted in external wall)
	4F	All OK but management need to be aware (eg. graffiti on external areas of compound)
	4D	All areas are OK and to be reassessed at next 4 yearly inspection