Table 6-1 Maintenance Decision Risk Matrix (MDRM)

COATING INTEGRITY CRITERIA	CONDITION RATING	REQUIRED MAINTENANCE ACTION					CONDITION RATING	STRUCTURAL INTEGRITY CRITERIA (METAL LOSS)
> 10% FAILURE **NOTE (8)**	**P4**	REPAIR IN CURRENT MC; OR SUBMIT MAJOR DFS NOTES (3), (5), (6), (13)	REPAIR IN CURRENT MC; OR SUBMIT MAJOR DFS NOTES (3), (5), (6), (13)	REPAIR IN NEXT MC OR SUBMIT DFS NOTES (4), (5), (17)	REPAIR OR CONDUCT MANDATORY RE-INSPECT AT NEXT MC NOTES (5), (17)	CONTINUE DISCRETIONARY MAINTENANCE	**S5**	• ≥25% FOR STEEL; LCS-1 CLASS: ≥20%; PC CLASS: ≥10% EXCEPT ≥5% FOR HULL & MAIN DECK PLATING BETWEEN FRS. 7-14 • ≥15% FOR ALUMINUM • ≥15% CROSS SECTION AREA LOSS FOR STANCHIONS • STRUCTURAL DEFICIENCIES INCLUDING: HOLING; CRACKING; DEFORMATION; OR OTHER SIGNS OF PHYSICAL DAMAGE
		REPAIR IN CURRENT MC; OR SUBMIT MAJOR DFS NOTES (2), (5), (6), (13)	REPAIR IN NEXT MC OR SUBMIT DFS NOTES (2), (5), (6), (13)	REPAIR OR CONDUCT MANDATORY RE-INSPECT AT NEXT MC NOTES (2), (5), (17)	REPAIR OR CONDUCT MANDATORY RE-INSPECT AT NEXT MC NOTES (2), (5), (17)	CONTINUE DISCRETIONARY MAINTENANCE	**S4**	• ≥20% TO 25% FOR STEEL; LCS-1 CLASS: ≥15% TO 20%; PC CLASS: ≥7% TO 10% EXCEPT ≥4% TO 5% FOR HULL & MAIN DECK PLATING BETWEEN FRS. 7-14 • ≥10% TO 15% FOR ALUMINUM **NOTE (7)**
≥ 1% TO 10% FAILURE	**P3**	REPAIR IN NEXT MC OR SUBMIT DFS NOTES (2), (12)	REPAIR OR CONDUCT MANDATORY RE-INSPECT AT NEXT MC NOTES (2), (12)	REPAIR OR CONDUCT MANDATORY RE-INSPECT AT NEXT MC NOTES (2), (16)	CONTINUE DISCRETIONARY MAINTENANCE NOTES (2), (16)	CONTINUE DISCRETIONARY MAINTENANCE NOTE (1)	**S3**	• ≥ 5% TO 20% FOR STEEL; LCS-1 CLASS: ≥5% TO 15%; PC CLASS: ≥5% TO 7% EXCEPT ≥3% TO 4% FOR HULL& MAIN DECK PLATING BETWEEN FRS. 7-14 • ≥ 5% TO 10% FOR ALUMINUM
≥ 0.03% TO 1% FAILURE	**P2**	REPAIR OR CONDUCT MANDATORY RE-INSPECT AT NEXT MC NOTES (2), (9), (11)	CONTINUE DISCRETIONARY MAINTENANCE NOTES (2), (11)	CONTINUE DISCRETIONARY MAINTENANCE NOTES (2), (15)	CONTINUE DISCRETIONARY MAINTENANCE NOTES (2), (15)	CONTINUE DISCRETIONARY MAINTENANCE NOTE (1)	**S2**	• < 5% FOR STEEL & ALUMINUM; PC CLASS: ≥3% TO 5% EXCEPT ≥2% TO 3% FOR HULL & MAIN DECK PLATING BETWEEN FRS. 7-14
≤ 0.03% FAILURE	**P1**	CONTINUE DISCRETIONARY MAINTENANCE NOTES (1), (10)	CONTINUE DISCRETIONARY MAINTENANCE NOTES (1), (10)	NO REPAIR ACTION REQUIRED NOTES (1), (14)	NO REPAIR ACTION REQUIRED NOTES (1), (14)	NO REPAIR ACTION REQUIRED NOTE (1)	**S1**	• NONE DISCERNABLE
RISK GROUP		**R5**	**R4**	**R3**	**R2**	**R1**	RISK GROUP SEE TABLES 6-2 AND 6-3	
RISK (CRITICALITY)		CRITICAL	HIGH	ESSENTIAL	LOW	MINIMAL		

NOTES FOR TABLE 6-1

GENERAL NOTES:

a. MC = Maintenance Cycle.

b. For tanks and voids (MRC G1N5 findings), the overall coating condition rating of the compartment governs coating maintenance actions. For all other locations (MRC G1N6 findings), separate and independent maintenance action decisions shall be made for each GR2K based on the highest coating condition rating for the affected survey zone. Refer to paragraph 4-4.

c. "Continue Discretionary Maintenance" includes Organizational level (Ships Force) periodic corrosion inspections and touch-up painting in accordance with PMS MIP 6300/001 or other applicable PMS requirements.

d. Requirements and limitations applicable to the disposition of ISIS/CDA findings in tanks and voids shall be in accordance with paragraph 6-5.

e. In the specific notes below, touch-up of coatings is in accordance with paragraph 6-4, and localized vs. scattered corrosion is as reported by the surveyor as defined in paragraph 4-4.3.2.

SPECIFIC NOTES:

1. No required coating or structural repairs.
2. No required structural repairs or structural DFS except where Note 7 applies; repair actions apply to coating systems only.
3. Accomplish structural repairs in accordance with NSTM Chapter 100 in the current maintenance cycle, or submit a major DFS and re-inspect structure in next maintenance cycle.
4. Accomplish structural repairs in accordance with NSTM Chapter 100 in the next maintenance cycle, or submit a DFS. Re-inspect structure in next maintenance cycle.
5. Schedule and perform coating repair or replacement in accordance with NSTM Chapter 631 and Standard Item 009-32 in the next maintenance cycle, or submit a DFS.
6. Ultrasonic thickness gauge measurements of structure are required in accordance with NSTM Chapter 100 prior to coating repairs.
7. Refer to NSTM Chapter 100 for exceptions requiring structural repair for structural condition S4.
8. Refer to paragraph 4-4.5 for application of NSTM Chapter 631 criteria concerning mandatory replacement of the entire coating system in the designated compartment or area when the accumulated damage exceeds 10% or 20% of the total surface area.
9. Aircraft carrier potable water tanks in Condition 2 shall be scheduled for complete recoating at the next docking availability.
10. If a tank or void coating has been in service for one survey cycle then re-survey in the lesser of 72 months or at the next survey periodicity in Table 3-1. If a tank or void coating has been in service for two or more survey cycles then re-survey within 36 months. Touch-up of localized coating damage can be performed. Non-compensated clean FO tanks where coatings are no longer required are exempt from the requirements of this note, and their assessment periods are controlled by Table 3-1.
11. Severe service tanks: re-survey within 36 months. Voids and non-severe service tanks: re-survey in the lesser of 72 months or at the next survey periodicity in Table 3-1. Innerbottom tank or void with scattered corrosion: full blast & recoat at next docking availability. Touch-up of localized coating damage is recommended.

12. Touch-up of localized coating damage in severe service tanks and in non-CVN bilge regions is required within current MC; in all other compartments, it is recommended. Innerbottom tank or void: full blast & recoat at next docking availability; if next docking avail. is 2 MC's in future, re-survey during next waterborne avail. MC. Not innerbottom tank or void: full blast & recoat in next maintenance cycle.
13. Touch-up of localized coating damage in severe service tanks and in non-CVN bilge regions is required within current MC; in all other compartments, it is recommended. For tanks and voids in the innerbottom, the requirements of 6-3.1.1(b) also apply. Perform an as-arrived Level 2 inspection in tanks and voids in the next maintenance cycle prior to recoat to determine if structural repairs are needed.
14. If a tank or void coating has been in service for one survey cycle then re-survey at the next survey periodicity in Table 3-1. If a tank or void coating has been in service for two or more survey cycles then re-survey within 72 months. Touch-up of localized coating damage can be performed.
15. Re-survey tanks & voids in the lesser of 72 months or at the next survey periodicity in Table 3-1. Touch-up of localized coating damage is recommended.
16. Innerbottom tank or void: If next docking avail. is >36 months away, re-survey at 36 months during next waterborne avail. Touch-up of localized coating damage is recommended.
17. Unless exempted in paragraph 3-3.4, perform an as-arrived Level 2 inspection in tanks and voids prior to recoat to determine if structural repairs are needed. Touch-up of localized coating damage is recommended.

Table 6-2 MRC G1N5 Tank & Void Criticality/Risk Groups

Critical - R5 -	High - R4 -	Essential - R3 -	Low - R2 -	Minimal - R1 -
• Holing in Plate Boundaries and Supporting Framing; incl. sounding tube striker plates	• Fuel Oil (FO) Storage & Service Tanks	• JP-5 Storage (including Overflow/Ballast Tanks) (CVN Only)	• Pipe Hangers supporting Non- Grade A Shock Systems	
• Cracking, Buckling, or Signs of Overload in All Tank Structures	• JP-5 Storage (including Overflow/Ballast Tanks) (Non-CVN)	• Floodable Voids, including CVN DC Voids		
• Feed Water Tanks (Surface Ships)	• JP-5 Service Tanks	• Non-Floodable (Dry) Voids and Cofferdams		
• Potable Water Tanks	• JP-5 Contaminated & Settling Tanks/Purifier Drain Sump*	• Sponson Voids		
• Sewage/ Waste (CHT) Tanks*	• Lube Oil & Lube Oil Sump Tanks	• Anchor Chain Lockers		
• Contaminated Drain System (Drainage & Collecting Tanks*	• Hydraulic Oil Tanks	• Ladders, Hand/Foot Grab Bars, and Handrails in Tanks		
• Compensating Fuel/Ballast Tanks*	• Contaminated Oil Tanks*	• Tank Striker Plates Except Where Holed		
• Seawater Ballast and Seawater List/Ballast Control Tanks*	• Oily Waste, Waste Water & Plumbing Waste Drain Tanks*	• Catapult Water Brake Tanks (CVN)		
• Fresh Water Steam Condensate Drain Collecting Tanks (Non-CVN)*	• List Control Tanks- Freshwater Service (CVN Only)	• Catapult Trough Wing Voids (CVN)		
• High Pressure Water mist Fresh Water Storage Tanks (Fire Fighting Systems)	• MOGAS (Gasoline) Tanks			
	• Pipe Hangers supporting Grade A Shock Systems			

* = Severe service tanks as per paragraph 6-2.1.1.

NOTES:

(1) Refer to Table 6-1 for maintenance action requirements.

(2) Where two or more categories apply, including those in Table 6-3, the higher risk category shall be used.

(3) Includes all internal framing and stiffeners

(4) All structural closures shall have the same risk category as the structure group they penetrate.

(5) FO Storage & Service Tanks do not require re-coating. Refer to paragraph 4-4.3.4.1.

(6) Aircraft carrier propulsion plant fresh water tanks are outside the scope of this manual per paragraph 1-3.

Table 6-3 MRC G1N6 General Structure Criticality/Risk Groups

Critical **- R5 -**	**High** **- R4 -**	**Essential** **- R3 -**	**Low** **- R2 -**	**Minimal** **- R1 -**
• Holing in the Following Plate Boundaries and supporting framing: All Tanks, Shell; Flight Deck; Water Tight and Weather Tight Enclosures; Vital Spaces; Subdivision Bulkheads; and DC Decks and presence of doublers in same	• Decks & Bulkheads Subject to Wetting and Drainage Collection Below DC Deck, Including Bilges	• Ship Shell & Framing Above DC Deck Aft of 0.2 L	• Non-tight & Fume-tight Structural Bulkheads Above the DC Deck	• Non Structural Bulkheads, Joiner Bulkheads
	• Deep Support Structure for Decks, Shell, and Bulkhead Framing Including Stanchions, Transverse Webs, Web Frames, Longitudinal Girders, and Vertical and Horizontal Webs on Bulkheads	• Bilge Keel	• Service Trunks (Piping, Wireway & Systems Service, Equipment & Material Handling) Above DC Deck	
• Cracking, Buckling, or Signs of Overload in All Load Bearing Structures	• Ship Shell, Stern Tubes, including Breasthooks Below DC Deck	• Sponson Structure including Shell, Decks, Web Bulkheads	• Foundations & Backing Structure: Grade C	
• Sea Chests and Overboard Discharges	• Ship Shell Above DC Deck Forward 0.2 L, where L is the length between perpendiculars.	• Superstructure/Island/Deck House Enclosures, Weather Decks	• Pipe Hangers- Non Vital Systems	
	• Crack Arrest Structures Including: Ship Shell Sheer Strake, Deck Stringer Strake, and Ship Shell Bilge Strakes within 3/5 Amidship L	• Non-tight Structural Bulkheads Below DC Deck, except in way of Bilges	• Floor Plates, Grating, & Outfitting Platforms, and their Support Structure	
	• Longitudinal Strength Bulkheads Uppermost and Lower Most Strakes	• Decks & Platform Decks except in way of: Bilges & Vital Space Boundaries below the DC Deck	• Ladders, Hand/Foot Grab Bars & Handrails Outside of Tanks	
	• Innerbottom Deck	• Vital Spaces Boundary Bulkheads; Airtight, Fire-tight & Weather Tight Bulkhead Boundaries; Trunks (Escape & Access); Above DC Deck		
	• Flight Deck & Hangar Deck	• Main Subdivision Bulkheads Above DC Deck		
	• Deck Forming Top of Hanger or Well Areas	• Structural Ventilation Plenums & Trunks (Exhaust Discharge) & Fan Rooms		
	• Uppermost Strength Deck	• Fixed Exterior Walkways/ Catwalks		
	• DC Deck (Upper most deck that WT BHDs extend to)	• Service Trunks (Piping, Wireway, & Systems Service, Equipment and Material Handling Trunks) Below DC Deck (Non-watertight)		

Table 6-3 MRC G1N6 General Structure Criticality/Risk Groups - Continued

Critical - R5 -	High - R4 -	Essential - R3 -	Low - R2 -	Minimal - R1 -
	• Vital Space Boundary Bulkheads, Including Trunks (Escape & Access), Below DC Deck • Main Subdivision Bulkheads Below DC Deck • Skeg & Rudder • Foundations & Backing Structure :Shock Grade A including Arresting Gear and Machinery Flats (Note 6) • Masts & Towers (Note 6) • Pipe Hangers: Grade A Systems • Cross Flooding Ducts & Freeing Ports & Framing • Intakes (Combustion Air, Boiler, Diesel, Gas Turbine) Structural Boundaries (Inlet Supply) • Combustion Air Uptakes (Exhaust Discharge) • Structural Ventilation Plenums & Trunks (Inlet Supply) • Well Deck, Decks and Bulkheads Behind Batterboards/Beachboards	• Foundations & Backing Structure: Shock Grade B (Note 6) • Barricade Stanchion Recess (CVN) • Fog, Foam & AFFF Stations, Foundation, Coaming • Anchor Chain Locker, Sump • Aircraft Elevators (ACE) • Helicopter RAST or ASIST System Track Troughs •Interior Compartments above WL with boundaries serving as hull of ship, not otherwise listed		

NOTES:
(1) Refer to Table 6-1 for maintenance action requirements.
(2) Where two or more categories apply, the higher risk category shall be used.
(3) Includes all internal framing and stiffeners
(4) All structural closures shall have the same risk category as the structure group they penetrate.
(5) Drain collecting areas (sumps) and other wet areas where drainage is collected shall be considered the same as bilges.
(6) Masts and yardarm elements, tower elements, and foundations comprised solely of cantilevers shall be treated as stanchions for determining structural conditions ratings.