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Karachi, 27th January, 2026.

FINAL ACCIDENT INVESTIGATION REPORT

Subject: **GROUNDING INCIDENT OF THE M.V. MSC JEANNE IV AT PORT QASIM ON 13 JANUARY 2026.**

Issued by: - **Capt. Rafaqat Hussain**, Chief Nautical Surveyor (CNS)
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Ministry of Maritime Affairs, Government of Pakistan
Date of Final Report: 27th January 2026

1. Description Summary of the Grounding Incident

On **13 January 2026**, the container vessel **MSC JEANNE IV** (LOA 260.05m) was on an inbound passage under pilotage to QICT-8 at Port Qasim. At approximately **09:44**, while maneuvering in the confined inner approach channel near Buoy K10, the bridge team prepared for berthing by switching on the bow thruster. This action immediately triggered a **catastrophic total blackout**, causing the main generators to trip.

The blackout resulted in the complete loss of propulsion, primary steering, and all electrical power. Critical backup systems failed simultaneously: the emergency generator did not auto-start, emergency/hydraulic steering was inoperative, and the anchor windlass was powerless. With the **rudder stuck at Port 10°**, the vessel became ungovernable. It developed a swing to port, influenced by the ebb tide, and despite attempts to control it, the vessel breached the channel boundary at **09:48**, grounding on a mud seabed near Buoy K10 with its stern remaining in the channel.

Port Qasim Authority (PQA) mounted a major emergency response, mobilizing six tugs and senior marine officers. After a complex **4-hour and 18-minute operation** that blocked a critical national energy channel, the vessel was successfully re-floated at **14:06** using a combination of tug power and the vessel's own machinery (once power was restored). The vessel proceeded to QICT-8 and was safely berthed by **15:36**. Subsequent inspections found no pollution or structural damage to the vessel's hull.

2. Supporting Documents & Interviews

A. Key Supporting Documents Analyzed:

DGPS Formal Inquiry Initiation (Ref: Sec 471, MSO 2001)
PQA Marine Department Internal Investigation Report (20 Jan 2026)
Master's Statement (Capt. Oleg Artamonov)
Master-Pilot Exchange Information / Pilot Card

MSC Geneva & Pakistan Agency Email Correspondence
Vessel Particulars and Specifications
Diving Service Report (Hull Inspection)
Class Survey Report (Korean Register - Remote Survey)
PQA Preliminary Incident Report & Joint Survey Proforma
On-Duty Pilot Damage Report

B. Interviews Held on 16 January 2026:

As part of the initial investigation directed by the Chief Nautical Surveyor, interviews were conducted with the two pilots who were conning the vessel at the time of the incident. Their names, as per the **Master-Pilot Exchange (Pilot Card)**, are:

Capt. Javaid Ehsin (Pilot)

Capt. Syed Faisal Rahman (Pilot)

Their statements and the Master's report corroborate the sequence of events, confirming the sudden blackout, the failure of all emergency systems, and the efforts made to regain control before grounding.

3. Causes of the Accident

A. Immediate Cause:

A **total electrical power failure** at a critical maneuvering point, resulting in the loss of propulsion, steering (with rudder stuck at Port 10°), and all mitigating measures.

B. Root Cause:

A **technical failure in the vessel's electrical power management system**. The interaction between the Power Management System (PMS), generator protection relays, and the high **inrush current from the bow thruster** caused a simultaneous trip of all online auxiliary generators. The emergency generator failed to activate as designed, breaking the critical safety redundancy chain.

C. Contributing Factors:

Systemic Redundancy Failure: The emergency generator and emergency steering systems were non-functional, violating fundamental safety principles.

Environmental Factors: The vessel was transiting during a strong **ebb tide**. The tidal current at the turning point near Buoy K10 contributed to setting the disabled vessel towards the channel edge, exacerbating the grounding. The **rudder, jammed at Port 10°**, created a turning lever that further pulled the vessel's head to port and out of the channel.

Operational Timing: Conducting a high-power-demand action (thruster preparation) during the most navigationally sensitive phase of the transit.

Potential Maintenance Gaps: The concurrent failure of multiple independent systems suggests possible lapses in preventive maintenance, testing protocols, or crew training for integrated failure scenarios.

4. Responsibilities of the Ship's Master & Owners

The incident underscores the fundamental responsibilities of the vessel's operators:

Seaworthiness: The owner and Master are responsible for ensuring the vessel is fully operational, with all critical and backup systems functional before port entry. This incident demonstrates a clear breach of this duty.

ISM Code Compliance: The failures indicate potential deficiencies in the vessel's Safety Management System regarding maintenance, testing, and procedures for managing high-load operations.

Financial Liability: The vessel is liable for all costs incurred by PQA, including tugs, pilotage, and costs related to channel blockage. PQA's professional response averted a formal salvage, saving the owners millions—a goodwill gesture that does not negate liability for actual costs. PQA reserves the right to claim for all expenses and any applicable penalties under port regulations.

5. Protective Measures for PQA & Pilots

A. Asserting PQA's Rights:

Issue a formal claim for all incident-related costs.

Require a P&I Club Letter of Undertaking as financial security before vessel departure.

Support the DGPS inquiry to ensure appropriate regulatory accountability.

B. Protecting Pilots & Enhancing Pre-Boarding Safety:

Empower pilots to verify a **"Pre-Entry Safety Checklist"** before the vessel enters the channel.

The Master-Pilot Exchange must be an active verification process, not a passive form-filling exercise.

6. Recommendations to Prevent Future Incidents

A. Mandatory Pre-Entry Tests & Checks (Pilot-Verified):

Before entering the PQA channel, the following must be demonstrated:

Functional Blackout Test: Demonstrate automatic emergency generator start and load-taking within 45 seconds (conducted in a safe area outside the channel).

Steering Gear Test: Full operation on both primary and emergency/NFU modes.

Anchor Readiness: Positive confirmation of windlass power availability.

PMS & Thruster Briefing: Master must declare PMS status and agree on a protocol for thruster use.

B. Critical Point Checks & Tidal Awareness:

Before passing critical points (e.g., Buoy K10):

Tidal Briefing: Pilot and Master must explicitly discuss the **strength and set of the current** at the next turning point or constriction.

Engine Room Standby: Confirm engineering watch is on high alert.

Speed & UKC: Verify speed is at a safe minimum with maximum under-keel clearance.

Contingency Planning: Briefly confirm understanding of abort points and emergency actions (e.g., "If blackout here, we will attempt X").

C. Systemic Recommendations for PQA:

Develop a PQA Pilotage Manual standardizing procedures for confined water navigation, pre-entry checks, and blackout contingencies.

Implement a Vessel Fitness Screening protocol. Vessels with known technical issues or failing pre-entry checks may be denied entry pending class verification.

Conduct Joint Emergency Drills involving pilots, marine officers, and tug crews.

7. Lessons Learned

A. Redundancy Must Be Real: Emergency systems require rigorous, realistic testing. Paper compliance is insufficient. Regulatory compliance certificates do not guarantee operational reliability at the moment of crisis.

B. Respect the Critical Phase: Avoid high-load operations during the most demanding navigational segments, and sensitive phases of the passage. A "ready for berthing" status should not compromise basic propulsion and steering security.

C. Tidal Forces Are a Key Risk Factor: In confined channels, the set and drift from tides must be a central part of passage planning and contingency reasoning, especially for large, high-windage vessels.

D. Port Authority Capability is Not a Substitute for Vessel Seaworthiness: PQA's successful mitigation of the crisis demonstrates operational excellence but should not become an expected subsidy for vessel unreadiness. The financial and operational risks must remain squarely with the vessel interests. PQA's professional and cooperative response averted a disaster and a far costlier salvage. This should be recognized, but it must not lead to an expectation that ports will absorb the costs of a vessel's unseaworthiness.

E. Defense in Depth for Pilots: Pilots are the last line of defense. They must be empowered and equipped with clear procedures and checklists to verify a vessel's basic operational fitness before accepting the immense responsibility of conning it through restricted waters.

8. Conclusion:

The grounding of the MSC JEANNE IV was a direct result of technical failure onboard the vessel, compounded by the failure of its safety backup systems. While PQA's response was exemplary, systemic changes are required to shift the risk back to where it belongs—on the ship operators—and to provide pilots and port authorities with the tools to prevent similar incidents. The recommended checks and procedures are essential to protect Pakistan's critical maritime infrastructure, ensure fair cost recovery, and enhance the safety of all stakeholders in Port Qasim.

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