SOUTHGATE TERMINAL

Port Operations Security Documentation

Container Operations Emergency Procedures

Document Information

Document Type: Emergency Operations Procedure
Intended Users: Operations Team, Technical Team, Crane Operators
Usage Context: During container system failures, misrouting incidents, or crane operation emergencies
Related Scenarios: Container misrouting, gantry control failures, CCTV blackouts affecting container operations

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Purpose

This procedure provides specific guidance for managing container operations during system failures, including container misrouting correction, manual container tracking, and safe crane operations during technical emergencies.

When to Use This Procedure

- Container misrouting incidents (containers to wrong berths)
- Gantry control system failures requiring manual operation
- CCTV blackouts affecting container operation safety
- Container management system failures or unauthorised changes
- Crane synchronisation errors or safety concerns

Container Misrouting Emergency Response

Immediate Response (0-5 minutes)

Step 1: Misrouting Detection and Verification

- ☐ Stop Current Operations: Immediately halt container movement if misrouting detected
- ☐ Verify Misrouting: Confirm container ID, intended destination, and actual location
- ☐ Safety Assessment: Check if misplaced container creates immediate safety hazard
- ☐ Document Incident: Record container ID, intended berth, actual berth, time discovered

Container Misrouting Report Template:

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CONTAINER MISROUTING INCIDENT
Time Discovered: [Timestamp]
Container ID: [Container Number]
Intended Berth: [Original Destination]
Actual Location: [Current Location]
Discovered By: [Personnel Name/Position]
Immediate Hazard: [Yes/No - Description if yes]
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Step 2: Immediate Safety Measures

- ☐ Crane Hold: Stop all crane operations affecting misrouted container
- ☐ Area Isolation: Secure area around misrouted container if safety concern
- ☐ Personnel Notification: Alert all personnel in affected berth areas
- ☐ Traffic Control: Stop vehicle traffic near misrouted container if necessary

Container Correction Process (5-30 minutes)

Assessment and Planning Phase

1. Container Assessment:
   - ☐ Container type and contents
   - ☐ Current position and accessibility
   - ☐ Required lifting equipment
   - ☐ Destination berth availability
   - ☐ Route planning for correction move
2. Resource Requirements:
   - ☐ Crane Availability: Verify appropriate crane capacity and availability
   - ☐ Personnel: Crane operator, spotter, traffic coordinator
   - ☐ Equipment: Spreaders, lifting gear appropriate for container type
   - ☐ Route Clearance: Clear path from current location to correct berth
3. Safety Considerations:
   - ☐ Load Verification: Confirm container weight and centre of gravity
   - ☐ Weather Conditions: Wind speed and direction for safe lifting
   - ☐ Visual Monitoring: Spotter assignments for crane operation
   - ☐ Emergency Procedures: Ensure emergency stop procedures ready

Container Correction Execution

1. Pre-Move Safety Brief:
   - ☐ Brief all personnel on correction procedure
   - ☐ Assign spotter positions and communication methods
   - ☐ Verify emergency stop procedures
   - ☐ Confirm crane operator competency for specific move
2. Correction Move Procedure:
   - ☐ Container Securing: Ensure container properly secured before lift

- ☐ Lift Execution: Follow standard lifting procedures with enhanced safety
- ☐ Transport Route: Use predetermined safe route to correct berth
- ☐ Placement Verification: Confirm correct berth placement and securing

3. Post-Move Verification:
   - ☐ Location Confirmation: Verify container in correct berth position
   - ☐ System Update: Update container management system if operational
   - ☐ Documentation: Complete correction documentation
   - ☐ Safety Clearance: All-clear for normal operations resume

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Gantry Control System Failure Response

Immediate Actions (0-5 minutes)

System Failure Assessment

- ☐ Failure Scope: Determine which gantry systems affected
- ☐ Current Operations: Identify containers currently being moved
- ☐ Safety Status: Assess immediate danger to personnel or equipment
- ☐ Manual Override: Determine if manual override required and feasible

Emergency Container Securing

1. In-Transit Containers:
   - ☐ Immediate Stop: Use emergency stop if container in motion
   - ☐ Secure Position: Lower container to safe position if possible
   - ☐ Area Clearance: Clear personnel from beneath suspended containers
   - ☐ Support Measures: Deploy additional securing if container unstable
2. Planned Operations:
   - ☐ Hold All Moves: Stop all planned container movements
   - ☐ Secure Equipment: Ensure all lifting equipment in safe position
   - ☐ Personnel Accountability: Account for all personnel in gantry areas
   - ☐ Alternative Routing: Plan alternative operations if feasible

Manual Override Authorization Process

Override Readiness Assessment

1. Personnel Competency Verification:
   - ☐ Operator Qualification: Verify crane operator manual operation training
   - ☐ Recent Experience: Confirm recent manual operation experience

- ☐ Physical Condition: Assess operator fitness for extended manual operation
- ☐ Spotter Availability: Ensure qualified spotters available

2. Equipment Safety Check:
   - ☐ Manual Controls: Verify manual control system functionality
   - ☐ Safety Systems: Confirm emergency stop and safety systems operational
   - ☐ Communication: Test crane operator to spotter communication
   - ☐ Backup Power: Verify backup power systems if required
3. Environmental Assessment:
   - ☐ Weather Conditions: Assess wind, visibility, precipitation
   - ☐ Lighting: Ensure adequate lighting for manual operations
   - ☐ Area Conditions: Check for obstacles or hazards in operating area
   - ☐ Emergency Access: Verify emergency vehicle access maintained

Manual Override Authorization Authority Required: Operations Supervisor + Safety Officer
Documentation Required: Manual Override Authorization Form

Authorization Checklist: - [ ] All safety systems verified operational - [ ] Qualified personnel assigned and briefed - [ ] Environmental conditions acceptable - [ ] Emergency procedures confirmed - [ ] Communication systems tested - [ ] Maximum operation duration established

Manual Gantry Operation Procedures

Enhanced Safety Protocols

1. Continuous Communication:
   - ☐ Radio Check: Test radio communication before each move
   - ☐ Visual Contact: Maintain visual contact between operator and spotter
   - ☐ Standard Signals: Use standardized hand signals as backup
   - ☐ Emergency Signals: Ensure all personnel know emergency stop signals
2. Reduced Operation Parameters:
   - ☐ Speed Reduction: Operate at 50% normal speed maximum
   - ☐ Load Limits: Reduce maximum load capacity by 20%
   - ☐ Wind Limits: Stop operations if wind exceeds 25 mph
   - ☐ Visibility Requirements: Stop operations if visibility below 100 meters
3. Enhanced Monitoring:
   - ☐ Additional Spotters: Deploy extra spotters for complex moves
   - ☐ Ground Personnel: Ensure adequate ground personnel for coordination
   - ☐ Equipment Monitoring: Continuous monitoring of crane performance

- ☐ Safety Officer Presence: Safety officer on-site during manual operations

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CCTV Blackout Container Operations

Visual Monitoring Replacement

Spotter Deployment Strategy

1. Critical Position Coverage:
   - ☐ Crane Operator Blind Spots: Position spotters at operator blind spots
   - ☐ Ground Movement Areas: Cover areas where personnel/vehicles move
   - ☐ Container Landing Zones: Monitor container placement areas
   - ☐ Traffic Intersection Points: Cover vehicle and equipment intersections
2. Spotter Assignment Protocol:
   - ☐ Primary Spotter: Assigned to specific crane for entire operation
   - ☐ Roving Spotter: Covers multiple areas during different operations
   - ☐ Traffic Spotter: Dedicated to vehicle and equipment movement
   - ☐ Safety Spotter: Focused on personnel safety and emergency response

Enhanced Communication Procedures

1. Communication Hierarchy:
   - Primary: Radio communication on designated channel
   - Secondary: Hand signals and visual signals
   - Emergency: Air horn, whistle, or emergency signals
2. Standard Communication Protocol:
   - ☐ Move Authorization: “Clear to move” from primary spotter
   - ☐ Progress Updates: Regular position updates during move
   - ☐ Hazard Alerts: Immediate communication of any hazards
   - ☐ Completion Confirmation: “Move complete, all clear” signal

Reduced Capacity Operations

Container Operation Modifications

1. Operational Restrictions:
   - ☐ Single Container Moves: Only one container move at a time
   - ☐ Reduced Speed: 30% normal speed during CCTV blackout
   - ☐ Enhanced Verification: Double-check all container IDs and destinations
   - ☐ Extended Safety Zones: Increase safety zones around operations

2. Additional Verification Steps:
   - ☐ Manual Container Check: Physical verification of container ID
   - ☐ Destination Confirmation: Multiple verification of destination berth
   - ☐ Route Verification: Walk route before container movement
   - ☐ Personnel Clearance: Physical verification area clear before move

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Container System Failure Recovery

System Restoration Verification

Container Tracking System Recovery

1. Data Integrity Verification:
   - ☐ Container Location Audit: Physical verification of all container locations
   - ☐ Database Reconciliation: Compare physical locations with system records
   - ☐ Discrepancy Resolution: Investigate and resolve any location discrepancies
   - ☐ System Update: Update system records to match physical reality
2. System Functionality Testing:
   - ☐ Test Container Tracking: Verify system tracks container movements accurately
   - ☐ Test Crane Integration: Confirm crane systems integrate properly
   - ☐ Test Safety Systems: Verify safety interlocks and emergency stops
   - ☐ Test Communication: Confirm system communication with all components

Return to Normal Operations

1. Gradual Operation Resumption:
   - ☐ Single Move Test: Test system with single container move
   - ☐ Monitoring Period: Enhanced monitoring for first hour of operations
   - ☐ Performance Verification: Verify system performance meets standards
   - ☐ Full Operations: Return to normal operational capacity
2. Ongoing Monitoring:
   - ☐ System Performance: Monitor for any recurring issues
   - ☐ Error Logging: Log any system errors or anomalies
   - ☐ Personnel Feedback: Gather feedback from operators on system performance
   - ☐ Continuous Assessment: Regular assessment of system reliability

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Emergency Contact Information

Container Operations Emergency Contacts

Operations Supervisor: [Phone number]
Crane Operations Manager: [Phone number]
Safety Officer: [Phone number]
Technical Support: [Phone number]
Emergency Services: 911

Equipment Emergency Contacts

Crane Maintenance: [24-hour number]
Container System Support: [Phone number]
Gantry Control Vendor: [Emergency support number]
Backup Equipment Rental: [Phone number]

Documentation Requirements

Incident Documentation

Required for All Container Incidents: - Container Misrouting Report - Manual Override Authorization (if applicable) - Safety Assessment Documentation - Corrective Action Documentation - Personnel Involved Record

Follow-up Documentation

Within 24 Hours: - Complete incident analysis - System restoration verification - Lessons learned documentation - Process improvement recommendations - Training need assessment

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Success Criteria

- Safe and timely correction of container misrouting incidents
- Effective manual operation during system failures
- Maintained personnel safety during emergency operations
- Successful transition back to normal operations
- Comprehensive documentation for continuous improvement

Related Documents

- Manual Override Authorization Process

- CCTV Blackout Response SOP
- Safety Risk Assessment Template
- Multi-System Failure Coordination Guide
- Technical Containment Guide