

Redeployment Risk Assessment (Winter)

Operation / Mission Description:		Prepared by: Mr. Lohmüller 21 st TSC Safety Office		Unit:	
RAIL					
Rail Operation	Potential Risk or Hazard	Risk Assess Code	Control Measure	Residual Risk Code	Remarks Person Responsible
Conduct rail operations in cold/adverse weather conditions.	Cold weather injuries, thunderstorms, or high winds.	High	<ul style="list-style-type: none"> Provide adequate amount of drinking water, warm up areas and brief personnel on cold weather injury prevention and proper work/rest cycles. Ensure personnel are acclimatized and dress appropriate for weather conditions. Pre-designate Go/No Go weather conditions. Brief personnel on inclement weather procedures and determine high wind categories (> 40 knots). Obtain daily weather forecast and post temperatures to include wind chill factors. Cease operations and evacuate areas during thunderstorms and strong/gusty wind. 	Low	S2 receives weather forecast and briefs daily Note: 15knots = reevaluate risk level for crane loading >15 knots = stop sling loading operations > 40 knots = stop entire operation
Conduct operations at railhead. Medical Support	Personnel injured during rail loading operations.	High	<ul style="list-style-type: none"> Ensure medical/emergency rescue support is available at the railhead during operations. Position Combat Life Savers at key areas during operations. 	Low	Medical/emergency rescue personnel. Medical personnel coordinate actions with local hospital. Exercise at least one ambulance “dry run” to the hospital to prevent any time delays in case of an emergency.
	Personnel sustain cold weather injuries.	High	<ul style="list-style-type: none"> Ensure medics are trained to identify and equipped to treat cold weather injuries. 	Low	
Personnel walking/working at the railhead.	Person struck by train or vehicle.	High	<ul style="list-style-type: none"> Brief personnel to stay clear of tracks and train until train stops. Brief off limit areas at railhead. Ensure Rail Movement Management Team (RMMT) controls all rail load operations. Ensure non-operational personnel/ Distinguished Visitors (DVs) are escorted in the area/wear hard hats. Enforce no running at railhead. 	Low	Transportation Movement Control Agency (TMCA), Safety and Rail Movement Management Team (RMMT) Perform daily Safety briefings

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Guard personnel exiting train	Person(s) sustain severe injuries while exiting a moving train.	High	<ul style="list-style-type: none"> • Ensure <u>nobody</u> will exit a moving train. 	Moderate	Train Commander
Personnel walking/working on railcars or handling MHE at railhead equipped with <u>overhead high voltage power lines</u> .	Electrocution	Ex High	<ul style="list-style-type: none"> • Brief personnel to stay away from overhead power lines unless they have been de-energized for unloading operations. • Ensure all overhead power lines are de-energized during railhead operations. • Do not use/carry ladders/poles/tools that could come within 5 ft (1.5m) of overhead power lines. • Never climb on loaded railcars during enroute stops. 	Moderate	RMMT coordinate actions with Host Nation railroad agency. Railhead/train commander brief and enforce compliance with standards.
Personnel walking on ramps and railcars.	Personnel slip and fall from ramp or railcar.	High	<ul style="list-style-type: none"> • Ensure personnel maintain positive contact while on the railcar. • Ensure personnel will not run on or jump from ramps/railcars. • Remove snow and ice from railcars and ramps if necessary. 	Low	TMCA, RMMT enforce standards. Safety performs spot checks.
	Pinched hand/foot while removing stakes or lowering tailgates/side gates	Moderate	<ul style="list-style-type: none"> • Ensure areas are adequately lit at night or during inclement weather. • Ensure proper techniques are used while lifting heavy objects. 	Low	
Remove tie-down material on railcars.	Personnel sustain head, hand, foot or eye injury.	High	<ul style="list-style-type: none"> • Brief personnel on risks and hazards associated with removing tie-down material from vehicles and equipment. • Ensure tie-down material will be removed carefully using proper tools. <u>Remember straps/cables and chains are under tension!</u> • Ensure workers wear proper PPE. • Ensure personnel use proper techniques when lifting/transporting tie-down material. 	Low	TMCA, RMMT brief and enforce standards. Safety performs spot checks.

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Remove tie-down material on railcars. (continued)	Personnel sustain head, hand, foot or eye injury.	High	<ul style="list-style-type: none"> • Ensure removed tie-down material is stored properly and does not create any hazards (i.e. tripping). 	Low	TMCA, RMMT brief and enforce standards.
Remove blocking & bracing (b&b) materials.	Personnel sustain head, hand, foot, or eye injury.	High	<ul style="list-style-type: none"> • Brief personnel on risks and hazards associated with removing blocking and bracing material. • Ensure personnel wear proper personal protective equipment (PPE) (hard hat/Kevlar, leather gloves, and eye protection). • Ensure personnel handle tools properly and carefully. • Remove protruding nails and debris from railcars • Ensure removed blocking & bracing material does not create any hazards (i.e. protruding nails, slipping/tripping). • Ensure that no horseplay is tolerated. 	Low	TMCA, RMMT enforce standards. Safety performs spot checks.
Handling flammable material	Fire and Explosion	High	<ul style="list-style-type: none"> • Brief personnel that smoking is only allowed in designated smoking areas. • Personnel will not carry any flame or spark-producing devices into the railhead area. • Establish a turn-in point for flame or spark-producing devices. 	Moderate	TMCA, Commander
Driving AMVs off railcars and on ramps.	AMV drives off the edge of a railcar/ramp or get stuck between railcars.	High	<ul style="list-style-type: none"> • Ensure all AMVs are ground guided off the railcars. • AMV will be stopped if visual contact is lost with ground guide. • Ensure spanners are available for vehicles/trailers with small tires. 	Low	TMCA, RMMT enforce standards. Safety performs spot checks.

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Driving AMVs off railcars and on ramps.	Person(s) struck by AMV driving off the railcar (i.e. pinned between AMV and railcar or another AMV.	High	<ul style="list-style-type: none"> • Restrict railhead access to mission essential personnel. • Ensure drivers and ground guides are both familiar with hand and arm signals (see FM 21-60). • Ensure ground guides are not on the same railcar with a moving piece of equipment (maintain at least one railcar distance). • Ensure ground guides do not stand between AMVs/equipment. • Ensure ground guides wear reflective vests/belts. 	Low	TMCA, RMMT enforce standards. Safety performs spot checks.
	Ground guides falling between railcars.	High	<ul style="list-style-type: none"> • Ensure ground guides will not walk backwards. 	Low	
Sling loading operations with mobile/stationary cranes.	Improper hook up prior to sling loading.	High	<ul style="list-style-type: none"> • Select trained personnel to verify proper sling load hook up/rigging. • Ensure proper rigging equipment (i.e. spreader bar, cables, hooks, shackles etc.) is available and used to avoid equipment damages and personnel injuries. 	Low	TMCA, RMMT conduct briefing and enforce compliance
Sling loading operations.	Personnel struck/injured by lifted trailers/equipment.	High	<ul style="list-style-type: none"> • Maintain clear zone around crane(s) and lifted equipment. • Establish warning sign/sound and brief personnel on correct usage. • Ensure that all work stops immediately if ANYONE releases a warning signal/sound. • Use guide ropes to assist in controlling equipment movement. 	Low	TMCA, RMMT enforce standards. Safety performs spot checks.

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Sling loading operations (RAGLUND cranes).	Loss of control of sling load (uncontrolled turning and oscillation)	High	<ul style="list-style-type: none"> Regardless of wind speed, all equipment moved by this style of crane will have guide ropes attached. Ensure guide rope handlers release immediately if equipment starts spinning around. 	Moderate	TMCA, RMMT conduct briefing and enforce compliance. Safety performs spot checks.
Sling loading operations.	Accidental release or failure of hoisting equipment.	High	<ul style="list-style-type: none"> Establish clear zone under and around lifted items. Ensure handlers leave impact area immediately in case of hoisting equipment failure. 	Moderate	TMCA, RMMT conduct briefing and enforce compliance. Safety performs spot checks
Sling loading operations	Guide rope handler injured or loses arm/leg.	High	<ul style="list-style-type: none"> Ensure guide rope handlers are briefed on guide rope use and wear gloves. Ensure rope handlers hold rope tightly and that excess guide rope doesn't tangle around foot/leg. Ensure workers do not wrap guide rope around hand/arm. 	Moderate	TMCA, RMMT conduct briefing and enforce compliance. Safety performs spot checks
Loading MILVANS from railcars on trailers with Material Handling Equipment (MHE).	Personnel injured by moving MHE or lifted equipment (i.e. workers pinned between container and other objects/railcar, run over by MHE or hit by lifted equipment).	High	<ul style="list-style-type: none"> Maintain clear zone around MHE and under the container while being moved/lifted. Establish warning sign/sound and brief personnel on correct usage. Ensure that all work stops immediately if ANYONE releases a warning sign/sound. Establish operational rule that no one approaches the MILVAN until it is below eye level. 	Low	TMCA, RMMT enforce standards. Safety performs spot checks.
Driving AMVs from rail unloading site to staging area.	Personal injury and equipment damage caused by AMV.	High	<ul style="list-style-type: none"> Enforce speed limit. Ensure AMVs are ground guided in the staging/freight forward area and in all congested areas (i.e. rail loading site). 	Low	Transportation Movement Control Agency (TMCA). Leaders perform briefings prior to movement.

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Driving AMVs from rail unloading site to staging area. (continued)	Personal injury and equipment damage caused by AMV.	High	<ul style="list-style-type: none"> Ensure all drivers are licensed/trained to operate assigned vehicles. 	Low	Transportation Movement Control Agency (TMCA). Leaders perform briefings prior to movement.	
Movement of non-operational vehicles from rail unloading site to staging area.	Non-operational vehicles improperly handled.	Moderate	<ul style="list-style-type: none"> Provide NATO/U.S. slave cables and power source to start vehicles. Provide a wrecker to move non-operational vehicle(s) to the designated frustrated cargo area. 	Low	Maintenance Team	
Towing operations	Loss of control of equipment due to unplanned disconnect while towing vehicle.	High	<ul style="list-style-type: none"> Ensure tow bars are properly hooked up to towing points. 	Low	TMCA, Rail Movement Management Team (RMMT) brief and enforce standards. Safety performs spot checks * Stop operation and correct on the spot.	
	Loss of control of equipment due to unplanned disconnect between prime mover and trailer.	High	<ul style="list-style-type: none"> Ensure designated personnel at the railhead ramp and inside the ship/staging area inspect any towed equipment for pintel pins installed and safety chains hooked up prior to any movement. 	Low		
Preparation for continued shipment to CONUS (Customs inspection/cleaning)	Personnel injured during cleaning of vehicles, MILVANS or other equipment with high-pressure wash/steam cleaning equipment. (i.e. eye/face injuries, thermal burns).	High	<ul style="list-style-type: none"> Brief personnel on hazards of operating high pressure wash/steam cleaning equipment. Ensure all personnel wear proper PPE (i.e. eye/face protection, gloves, wet weather gear) Ensure that only one cleaner should be used per vehicle, MILVAN or equipment to reduce the injury risk. Ensure drive on ramps/steel racks are used to elevate vehicles/MILVAN for bottom cleaning. 	Low	Unit maintenance/contractor personnel, Safety, Customs. Safety performs periodic checks. Preventive Medicine performs periodic checks.	

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Preparation for continued shipment to CONUS Disinfection of material (IF APPLICABLE)	Personnel injured during treatment of vehicles, MILVANS or other equipment with approved disinfectant(s) (i.e. chemical burns to eye/skin, respiratory problems)	High	<ul style="list-style-type: none"> • Brief personnel on hazards of operating With disinfectants. • Ensure all personnel wear proper PPE: <p><u>Respiratory/eye protection:</u> Full-face respirator with organic vapor (Venno Vet 1 and acetic acid) or acid gas (sodium hypo chlorite) cartridges and mist prefilters (P95)</p> <p><u>Hand protection:</u> Rubber gloves (NBC), butyl rubber or nitrile are recommended</p> <p><u>Body protection:</u> Wet weather parka (rubber/PU), not GoreTex, with hood and over pants. Hooded Saranex® coveralls recommended.</p> <p><u>Foot protection:</u> NBC rubber over boots</p> <ul style="list-style-type: none"> • Ensure that only one trained/licensed personnel apply disinfectant. 	Low	Preventive Medicine, Safety. Safety performs periodic checks. Preventive Medicine performs periodic checks.

OVERALL RISK LEVEL AFTER CONTROLS ARE IMPLEMENTED (CIRCLE):

LOW

MODERATE

HIGH

EXTREMELY HIGH

RISK DECISION AUTHORITY: _____

Name

Rank

Title