



## ERS Team Experience – Example Risk Engineering and Loss Adjusting Projects – Ports & Terminals

Region	Classification	Insurance	Project/Technology	Features/Issues
Middle East & N. Africa	Loss Investigation/ Adjusting	CAR	Coastal Refinery Oil Storage Depot/Tank Farm	Were consequences of flash flood insurable damage?
N. America	Risk Engineering/ Project Monitoring	CAR	LNG Import, Gasification, Storage & Transmission Plant Expansion	Expansion of reactivated plant after 19 years in preservation, including new berth, new tanks & enlarged gasification capacity (1 Bcf/d, 4M bbl tankage). SIMOPS management & delineation of operational areas.
N. America	Risk Engineering/ Project Monitoring	CAR	LNG Import, Gasification, Storage & Transmission Plant Reactivation & Expansion	Restoration of plant to original designed purpose after 20 years' operation as a peak-shaving facility. New LNG Tanks to increase to 14.6 Bcf capacity, upgrades to facility (to 1.8 Bcf/d) & marine berth (148,000 m <sup>3</sup> ships), control/safety/security improvements.
N. America	Risk Engineering/ Project Monitoring	CAR/DSU	LNG Import, Gasification, Storage & Transmission Plant Expansion	Expansion of reactivated plant several years' shutdown, including new berth, new tank & enlarged gasification capacity (1.8 Bcf/day, 560,000 m <sup>3</sup> storage). SIMOPS management & delineation of operational areas.



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Middle East & N. Africa	Loss Investigation/ Adjusting	CAR/EAR	LNG Liquefaction & Storage	Collapse of LNG tank roof during air-raise operation.
N. America	Risk Engineering/ Project Monitoring	Builder's Risk	New 1 BCF/d LNG import terminal, Gasification, 320,000 m <sup>3</sup> Storage & Transmission Plant including ship berth (up to 200,000 m <sup>3</sup> )	Tight scope of coverage including offsite construction area Site topography/geology requiring construction on multiple levels & rock blasting for some foundations. Exposed location requiring novel breakwater construction to protect ship berth. Delineation of areas controlled by different contractors.
N. America	Risk Engineering/ Project Monitoring	EAR/DSU	New LNG import terminal, Gasification, Storage (320,000 m <sup>3</sup> ) & Transmission (1.75 Bcf/d) Plant including ship berth (up to 250,000 m <sup>3</sup> )	Enhanced precautions for potential windstorm exposure. Novel use of existing technology for vaporisation. Seasonal limits on some excavation activities.
Caribbean	Loss Investigation/ Adjusting	Property & BI	Water & Power Utility	Serious damage to infrastructure from Category 3 hurricane, including tankage & fuel jetty. Complex BI calculation with policy exclusions for damage to specified parts of system.

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Central Asia	Risk Engineering	EAR and TPL	Oil Pipeline & terminal upgrade	Pipeline & Marine Terminal Upgrade (New 5.7 km SPM & 600,000 m <sup>3</sup> Storage). Transnational boundary, multiple contractors.
E Europe	Risk Engineering	CAR, Damage to Existing Property, TPL	Oil and Gas Storage & Transshipment Terminal (capacity: 29,000 m <sup>3</sup> LPG & 480,000 m <sup>3</sup> oil)	Rail/Marine terminal with oil & LPG storage. Long interruption of Construction Period. Restoration/Preservation of Equipment. 1.5 km jetty.
Middle East & N. Africa	Risk Engineering	EAR and TPL Reinsurance	LNG Liquefaction Facility & Marine Terminal 4.5M Tpy, 400,000 m <sup>3</sup> storage	Multiple delays for technical & security reasons. Control of subcontractors.
Middle East & N. Africa	Risk Engineering	Property, Machinery Breakdown & TPL	Marine Terminals & Fuel Distribution Depots	Varying ages of facilities & standards of construction
Middle East & N. Africa	Risk Engineering	Property, Machinery Breakdown & TPL	Terminal for Crude Oil Export via SPMs	Punch list work from construction period