

TOPS DEFINITION OF MEASURES AND CALCULATIONS

NB: These may apply differentially as per the nature of the terminal operations

Measure	Definition	Calculation	Applicable	Exclusions
Terminal berthing delays	The average delay per vessel as a direct result of the terminal expressed in hours	Total of all (vessel actual berthing time - vessel planned berthing time) / total number of vessels delayed for a given period. The allowance of 30 minutes is to be considered as a buffer, thus any delay that is less than 30 minutes won't be considered as a delay.	Terminals with dedicated berths only	Force majeure (Weather delays) Surge, under currents External power supply failures
Berth Productivity	Total volume handled during the total time vessel is on berth expressed in tons/hour, KI/hour, Moves/hour, Units/hour	Total volume for a given period (in tons, KI, units or containers) /Total time vessel is on berth. Total time vessel is on berth is the sum for all vessels during the month (last rope untied – first rope tied)	Terminals with dedicated berths only	Force majeure (Weather delays)
Ship Working Hour	Total volume handled during the total productive working hours for the vessel expressed in tons/hour, KI/hour, Moves/hour or units/hour.	Total volume for a given period (in tons, KI, units or containers) / Total vessel productive. Total vessel productive time is the sum for all vessels during the month (last swing or cargo move) – (first swing or cargo move)	All terminals	Surge, under currents External power supply failures
Truck turnaround time	The average service time of road haulers within the terminal expressed in minutes or hours	Total of (gate time out - gate time in) / total number of haulers for the period	Terminals using road trucks	Force majeure (Weather delays) External power supply failures
Truck queuing outside Terminal	The truck congestion on public roads outside the terminal resulting from unmanaged truck arrival patterns. Average waiting time for trucks outside terminal expressed in minutes or hours	Total of all (truck gate in time minus truck arrival in queue) / number of trucks per sample	Terminals using road trucks	Trucks not en-route to terminal or without firm delivery / upliftment order External power supply failures

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Rail turnaround time	The average service time of trains arriving and departing the terminal expressed in hours	Total of (yard time out - yard time in) / total number of trains for the period	Terminals using Rail	Rolling stock in holding in rail yards Force majeure (Weather delays) External power supply failures
Cargo dwell time in terminal	The average period that cargo stays within the terminal between the times of arrival to loading and vessel discharge until terminal gate exit expressed in hours or days. Imports, exports and transshipments to be indicated separately	Total dwell time per container, ton, KI or units / Total units through the system for the period	All commodities except Liquid Bulk	Commercial arrangements borne in mind
	For liquid bulk terminals the average dwell time is to be the tank turn days.	Tank turn = volume for the period divided by tank capacity. Tank turn days (which should be the average dwell time) = Available days divided by tank turn.	Liquid Bulk Terminals	Planned outage days.
Terminal throughput	Total cargo handled (imported, exported and transhipped) by the terminal over a given period expressed in tons, KI, TEU's or units	Total of imports + exports + transshipments handled by the terminal over a given period.	All Terminals	Volume of refinery product stored in port is not regarded as import or export cargo but included in capacity