

Near Miss Definition

Incident	An event or chain of events which has caused or could have caused Injury or Illness and/or Damage (Loss) to assets, the Environment or Third Parties. This includes a Near Miss.
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Near Miss	An incident which potentially could have caused Injury or Occupational Illness and/ or Damage to people, asset, environment, or reputation, but which did not occur.
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Hi Potential Incident

Definition	High Potential Incident is any incident which, under different circumstances, would have caused more severe consequences leading to a major incident of rating 3, 4 or 5. Several examples of High Potential Incidents: ▪ Dropped object near a person or equipment which could potentially cause a major injury or fatality, or major LOPC/major asset damage. ▪ Vehicle accidents at retail stations which could potentially result in explosion or major injury. ▪ Propane leak from a separator at the gas processing plant due to faulty gasket was immediately mitigated by an operator by manually closing the valve. This incident was classified as Rating 2. If the leak had continued, it could have caused Vapor Cloud Explosion (VCE) and fatality. ▪ Operator was manually closing steam bypass valve when the bonnet failed resulting in steam release and the ejection of the stem and handle. The operator did not sustain any injury. The incident could have caused a major injury. ▪ Failure of a physical barrier to prevent major accident as defined in the respective OPU Bow Tie. For example, IPF Failed on Demand and PRD Failed on Demand. ▪ Critical Operating Parameter Never Exceed Limit (COPNEL) excursion. ▪ For more examples, refer to High potential events report in www.iogp.org
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LOPC (Process)

LOPC classification		
	Process (API RP 754)	Non-Process
1	Tier 1	Tier 1
2	Tier 2	Tier 2
3	Below Tier 2	Below Tier 2

Loss of Primary Containment (LOPC)	An unplanned or uncontrolled release of any material from primary containment, including non-toxic and non-flammable materials (e.g. steam, hot water, nitrogen, compressed CO2 or compressed air).
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LOPC (Process) continued

Major Process LOPC (Tier 1)

Definition	An unplanned or uncontrolled release of any material, including non-toxic and non-flammable materials (e.g. steam, hot condensate/boiler feed water, nitrogen, compressed CO₂ or compressed air), from a process that results in: a) a release of material equal or greater than the threshold quantities described in Table 1 of API RP 754 in any one-hour period. For liquids with Flash Point > 93°C, refer to Table 3 in Appendix 2 for Tier 1 threshold. b) a pressure relief device (PRD) discharge to atmosphere whether directly or via a downstream destructive device that results in: ▪ liquid carryover, ▪ discharge to a potentially unsafe location, ▪ an on-site shelter-in-place or ▪ public protective measures (e.g. road closure); and a PRD discharge quantity equal or greater than the threshold quantities in Table 1 of API RP 754 in any one- hour period. Note: For drilling operation, any unplanned and uncontrolled release to the surface (seabed and ground level) should be included. Destructive device – A flare, scrubber, incinerator, quench drum, or other similar device used to mitigate the potential consequences of a PRD release.
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LOPC (Process) continued

Minor Process LOPC (Tier 2)

Definition	An unplanned or uncontrolled release of any material, including non-toxic and non-flammable materials (e.g. steam, hot condensate, nitrogen, compressed CO₂ or compressed air), from a process that results in: a) a release of material less than the threshold quantities described in Table 1 of API RP 754 in any one-hour period, but equal and above Tier 2 Threshold quantity described in Table 2. For liquids with Flash Point > 93°C, refer to Table 3 in Appendix 2 for Tier 1 and Tier 2 thresholds. b) a pressure relief device (PRD) discharge to atmosphere whether directly or via a downstream destructive device that results in liquid carryover, discharge to a potentially unsafe location, an on-site shelter-in-place <u>or</u> public protective measures (e.g. road closure) and a PRD discharge quantity less than the threshold quantities in Table 1 of API RP 754 in any one-hour period but equal and above Tier 2 Threshold quantity described in Table 2. Note: a) For drilling operation, any unplanned and uncontrolled release to the surface (seabed and ground level) should be included. b) Destructive device - A flare, scrubber, incinerator, quench drum, or other similar device used to mitigate the potential consequences of a PRD release.
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LOPC (Process) continued

Slight Release Process LOPC

Definition	An unplanned or uncontrolled release of any material, including non-toxic and non-flammable materials (e.g. steam, hot condensate, nitrogen, compressed CO2 or compressed air), from a process that results in: a) Release below Tier 2 threshold quantity in any one-hour period as per API 754. (i.e. $R1 < \text{Tier 2 threshold quantity in any one-hour period}$). Note: a) For drilling operation, any unplanned and uncontrolled release to the surface (seabed and ground level) should be included.
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LOPC (Non-process)

Major Non Process LOPC

Definition	LOPC related to non process which includes: a) Transportation (includes road, rail, marine) not connected to process b) Other sources which include project site, warehouse, packed products, workshops, laboratory, office building, retail service stations, on-site fueling operations of mobile and stationary equipment (e.g. pick-up trucks, diesel generators, and heavy equipment). The LOPC threshold adopts the LOPC quantity of API 754 of greater than or equal to Tier 1 threshold (as per Table 1 in Appendix 2), regardless of the release rate. For liquids with Flash Point > 93°C, refer to Table 3 in Appendix 2 for Tier 1 threshold.
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Minor Non Process LOPC

Definition	LOPC related to non process which includes: a) Transportation (includes road, rail, marine) not connected to process b) Other sources which include project site, warehouse, packed products, workshops, laboratory, office building, retail service stations, on-site fueling operations of mobile and stationary equipment (e.g. pick-up trucks, diesel generators, and heavy equipment) The LOPC threshold adopts the LOPC quantity of API 754 of less than Tier 1 threshold quantity (as per Table 1 in Appendix 2) but equal and above Tier 2 Threshold quantity (as per Table 2 in Appendix 2). For liquids with Flash Point > 93°C, refer to Table 3 in Appendix 2 for Tier 1 and Tier 2 thresholds.
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LOPC (Non-process)

Slight Release Non-Process LOPC

Definition	LOPC related to non process which includes: a) Transportation (includes road, rail, marine) not connected to process b) Other sources which include project site, warehouse, packed products, workshops, laboratory, office building, retail service stations, on-site fueling operations of mobile and stationary equipment (e.g. pick-up trucks, diesel generators, and heavy equipment) Release below Tier 2 threshold quantity as per API 754 (i.e. $R1 < \text{Tier 2 threshold quantity}$)
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