

RISK ANALYSIS – FALL FROM HEIGHT ON A ROAD TANKER ACCESSED BY LADDER

COMPARISON OF TRAM, HORIZONTAL LIFELINE AND GUARDRAIL SYSTEMS AS RISK CONTROL MEASURES

| Activity | | Option 1: Horizontal lifeline <small>L = likelihood. C = consequence. R = risk score</small> | | | | | Option 2: TRAM <small>L = likelihood. C = consequence. R = risk score</small> | | | | | Option 3: Guardrails <small>L = likelihood. C = consequence. R = risk score</small> | | | | |
|--|------------------------------------|--|---|---|---|---|--|--|---|---|---|--|--|---|---|---|
| Work Step | Potential Hazards & Effects | Possible Elimination / Mitigation Measures | Residual Hazard | L | C | R | Possible Elimination / Mitigation Measures | Residual Hazard | L | C | R | Possible Elimination / Mitigation Measures | Residual Hazard | L | C | R |
| 1. Climb ladder to the level of the work platform. | Fall from height after a slip/trip | Ensure users: -Are fit for work. -Are trained. -Maintain a minimum three-point contact when climbing. | Fall from height due to failure to maintain a minimum three-point contact. | D | 4 | H | Ensure users: -Are fit for work. -Are trained. -Maintain a minimum three-point contact when climbing. | Fall from height due to failure to maintain a minimum three-point contact. | D | 4 | H | Ensure users: -Are fit for work. -Are trained. -Maintain a minimum three-point contact when climbing. | Fall from height due to failure to maintain a minimum three-point contact. | D | 4 | H |
| 2. Move from ladder to work platform | Fall from height from a slip/trip | Ensure users: -Are fit for work. -Are trained. -Maintain a minimum three-point contact. Use handrail system to physically assist the user in the climb* | Unarrested/unrestrained fall from height. | C | 4 | E | Ensure users: -Are fit for work. -Are trained. -Maintain a minimum three-point contact. -Use TRAM system as fall prevention and to assist the user in the climb * | Fall whilst restrained on ladder | E | 1 | L | Ensure users: -Are fit for work. -Are trained. -Maintain a minimum three-point contact. Use handrail system to physically assist the user in the climb* | Unarrested/unrestrained fall from height. | C | 4 | E |
| 3. Perform required work on platform | Fall from height after a slip/trip | Ensure users are fit for work. Ensure users are trained. Use lifeline system as fall prevention.* | Fall on tanker top. Potential for user to be hindered in avoiding objects when falling due to lifeline snagging and tension | E | 1 | L | Ensure users are fit for work. Ensure users are trained. Use TRAM system as fall prevention.* | Fall whilst restrained on tanker top. | E | 1 | L | Ensure users are fit for work. Ensure users are trained. Use handrail system as fall prevention.* | Unarrested/unrestrained fall from height. | D | 5 | E |

| | | | | | | | | | | | | | | | | |
|--------------------------------------|------------------------------------|--|--|---|---|----------|---|--|---|---|----------|---|--|---|---|----------|
| 4. Move from work platform to ladder | Fall from height from a slip/trip. | Ensure users: -Are fit for work. -Are trained. -Maintain a minimum three-point contact. -Use handrail system to physically assist the user in the climb.* | Unarrested/unrestrained fall from height. | B | 5 | E | Ensure users: -Are fit for work. -Are trained. -Use TRAM system as fall prevention and to physically assist the user in the climb | Fall whilst restrained on ladder. | E | 1 | L | Ensure users: - -Are fit for work. -Aare trained. -Maintain a minimum three-point contact. -Use handrail system to physically assist the user in the climb.* | Unarrested/unrestrained fall from height. | B | 5 | E |
| 5. Descend ladder | Fall from height from a slip/trip. | Ensure users: -Are fit for work. -Are trained. -Maintain a minimum three-point contact when climbing. | Unarrested/unrestrained fall from height from height due to failure to maintain a minimum three-point contact. | D | 4 | H | Ensure users: -Are fit for work. -Are trained. -Maintain a minimum three-point contact when climbing. | Unarrested/unrestrained fall from height from height due to failure to maintain a minimum three-point contact. | D | 4 | H | Ensure users: -Are fit for work. -Are trained. -Maintain a minimum three-point contact when climbing. | Unarrested/unrestrained fall from height due to failure to maintain a minimum three-point contact. | D | 4 | H |

*See discussion on previous pages

| Likelihood descriptors | | |
|------------------------|--------------------|---|
| A | Almost certain | Everyday occurrence |
| B | Likely | Happens occasionally |
| C | Unlikely | Might be experienced some time in a working life |
| D | Very unlikely | Not expected to happen but have heard of it happening elsewhere |
| E | Extremely unlikely | Theoretically possible but not expected ever to occur |

| Risk Scoring System | | | | | | |
|---------------------|--------------------|---------------|---------------------|-------------------|------------------|-------|
| | | Consequence → | | | | |
| | | 1 | 2 | 3 | 4 | 5 |
| Likelihood ↓ | | No Injuries | First aid treatment | Medical treatment | Extensive injury | Death |
| | | A | Almost certain | H | H | E |
| B | Likely | M | H | H | E | E |
| C | Unlikely | L | M | H | E | E |
| D | Very unlikely | L | L | M | H | E |
| E | Extremely unlikely | L | L | M | H | H |

GET HOME
SAFELY

