



SHIFT WORK – WORKING AT NIGHT & DAY SHIFT ROTATION AWARENESS

TOOLBOX TALK: Shift Work – Working at Night & Day Shift Rotation Awareness

RATTLIR Safety Series – "Strike Before It Bites"

Purpose

Shift work exposes workers to unique hazards related to fatigue, visibility, communication, and workflow. This toolbox talk covers the risks associated with night-shift operations as well as the often-overlooked hazards of day shift following weekly or biweekly shift rotations. Proper awareness ensures safer decisions and reduces the likelihood of human-performance-related incidents.

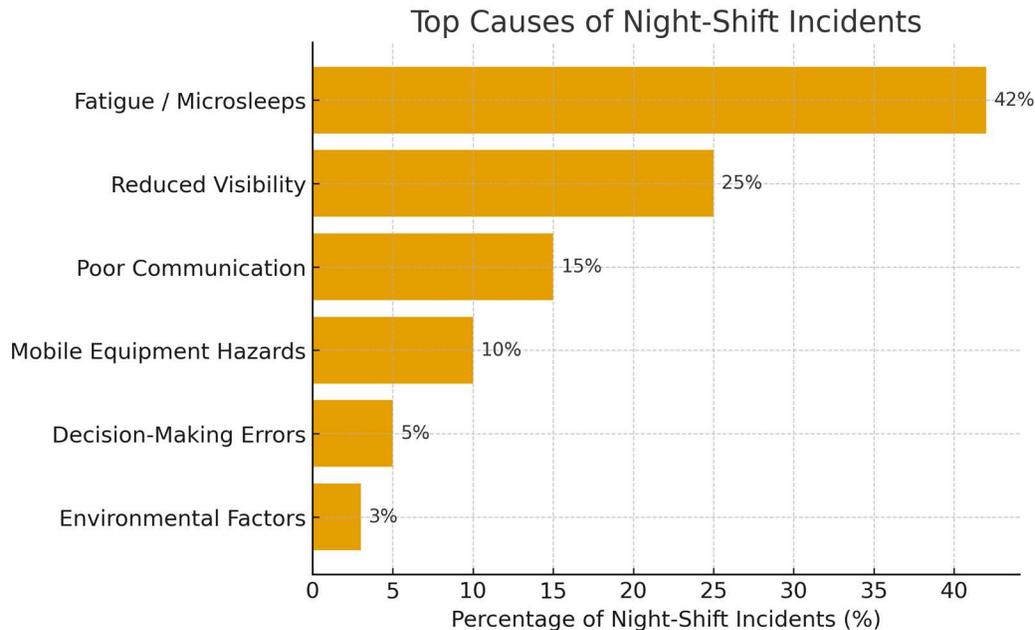


Figure 1 – Top Causes of Night-Shift Incidents

Night Shift Safety Hazards

- Fatigue significantly reduces reaction time, decision-making, and situational awareness.
- Visibility is reduced in mechanical rooms, turbine halls, boiler structures, and outdoor areas.
- Communication challenges increase with fewer personnel and lower lighting.
- Nighttime increases mobile equipment risks due to blind spots and lighting glare.



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- Environmental factors such as cold, dew, fog, and condensation reduce traction and visibility.

Fatigue and Human Performance

- Alertness drops sharply between 2 AM and 6 AM due to circadian rhythm lows.
- Being awake for more than 16 hours results in impairment comparable to alcohol.
- Microsleeps, brief lapses in attention, can occur without warning.
- Fatigue contributes to error traps such as assumptions, complacency, and reduced situational awareness.

Rotate tasks, maintain hydration, and take scheduled breaks to counteract fatigue.

Visibility and Lighting

- Use supplemental lighting in low-illumination areas.
- Remove shadows around critical work areas and walkways.
- Wear reflective or high-visibility clothing during nighttime work.
- Report and replace failed lighting immediately.

Mobile Equipment Hazards at Night

- Reduce operating speeds due to reduced visibility.
- Pedestrians should make eye contact with operators and avoid blind zones.
- Lighting glare can impair both operator and pedestrian visibility.
- Spotters may be required for navigation in tight or complex work areas.

Communication and Staffing Challenges

- Night shifts often operate with reduced staffing, increasing hazard-response times.
- Test radios and communication devices at the start of each shift.
- Use three-way communication to ensure clarity of instructions.
- Notify the control room before entering isolated or low-traffic areas.

Environmental Considerations

- Fog, dew, moisture, and temperature changes may reduce visibility or increase slip hazards.
- Cold nighttime temperatures may require additional PPE layers.
- Weather changes can impact equipment performance and worksite conditions.



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Day Shift Considerations for Rotating Crews

- Workers changing from nights to days may experience residual fatigue for 24–72 hours.
- Day shift introduces increased congestion from contractors, deliveries, and maintenance activities.
- Ambient noise levels are higher, masking alarms, communication, and environmental cues.
- Higher pedestrian and vehicle traffic increase struck-by risks.
- Heat stress hazards rise significantly during summer day shifts, especially after working cooler night shifts.
- Shift flips disrupt sleep cycles, leading to slowed reaction time and impaired decision-making.
- Supervisors should avoid scheduling high-risk tasks immediately after a shift rotation when possible.
- Workers should take micro-breaks and pace their workload to counteract circadian disruption.

Discussion Questions

- Do you understand how fatigue impact both night shift and day shift work?
- Are communication and lighting resources verified for your current shift?
- Are you aware of how rotating shifts affect alertness and decision-making?

RATTLIR Takeaway

Shift work, whether day or night, creates conditions that increase the likelihood of error, especially during weekly or biweekly shift rotations. Fatigue, visibility, communication gaps, and environmental conditions can all compound into significant hazards. RATTLIR strikes before it bites by promoting disciplined awareness, proper rest cycles, effective communication, and proactive hazard recognition across all shifts.