

Discussion Guide – Loss of control of wind turbine rotor during removal



Instructions:

This scenario can be used as a safety moment for construction or operations teams, who may utilise lifting equipment. As the facilitator of the discussion, you may find it helpful to hand out copies of this discussion guide. Ask the team members to read the scenario, then you can lead the discussion. The objective is to engage your team to explore the hazard and develop potential actions for your team to reduce the risk if needed.

Scenario

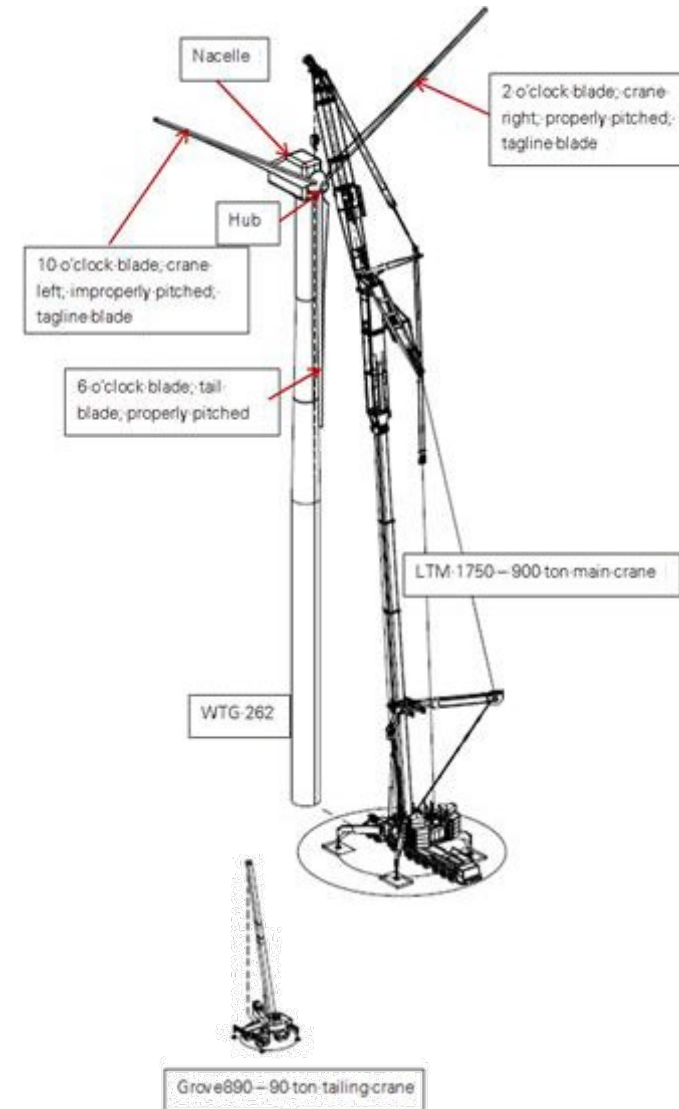
Prior to removing a rotor from a wind turbine, the three blades need to be pitched (rotated) to the same position. One of the blades seized and was left 180 out of position. The contractor team leader decided that the lift should proceed without pitching the blade.

Q: What would you have done in this situation? Why?

What happened next?

Upon removal of the rotor, the wind caught the blade that was not pitched properly causing an imbalanced load on the rotor. This caused the rotor to do a flip and the blade hit the crane boom and the turbine tower. The operator of the main crane then boomed up and moved the blade to rest against the tower stopping the motion of the rotor. This caused damage to the blade and the tower. There were no injuries.

Q: Do you have an example where a job you were working on changed while it was in progress. What did you do when the job changed?



Discussion Guide – Loss of control of wind turbine rotor during removal



Why did this happen?

- The work was not stopped when the procedure for the rotor removal could not be implemented as written. (The crane operator did question the team leader)
- A process for review and approval of deviations from procedures was not available to the work crew.
- There was a lack of contractor oversight for the task (eg review of lift plan).

Q: What can you do in your work area to reduce risks when job conditions change?

Ideas for Follow-up

- Encourage a robust 'STOP work' culture which empowers employees to voice their concerns when procedures are not being followed.
- Develop and maintain a documented process for deviation from a procedure that includes approval authorities and is readily accessible to front-line workers
- Provide oversight to assure that goods, equipment and services provided by contractors meet contractual and BP requirements.

Q: How can you ensure adequate oversight of contractors in your area?

