



CHELAN COUNTY

Human Factors in the Work Environment

The Dirty Dozen

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CHELAN COUNTY

'The Dirty Dozen'

- The Dirty Dozen is a list of the twelve most common maintenance-related causes of errors
- The list was Developed by Gordon Dupont of Transport Canada in 1993 as a result of a large increase in human error caused aviation accidents in the 1980's and early 90's
- The Dirty Dozen was adopted by the Federal Aviation Administration in 1994 and has been a pillar of aviation maintenance training ever since
- The list relates directly to work we do at the hydro projects and can easily be applied to our work environment at Chelan PUD



'The Dirty Dozen'

1. Lack of Communication
2. Complacency
3. Lack of Knowledge
4. Distraction
5. Lack of Teamwork
6. Fatigue
7. Lack of Resources
8. Pressure
9. Lack of Assertiveness
10. Stress
11. Lack of Awareness
12. Norms



#3 Lack of Knowledge

- Shortage of the training, information, and/or ability to successfully perform
- How do are we doing?
 - Continual training opportunities available
 - Student/Mentor culture amongst the crews
 - Several leaders among the crews that always strive to learn and do better
- How do we improve?
 - Don't guess, know!
 - Use manuals and manufacturer documentation for reference
 - Ask questions when you are unsure!
 - Participate and engage in training



#8 Pressure



- Real or Perceived forces demanding high level job performance
- How are we doing?
 - Great management support regarding timelines
 - A culture that puts safety and quality over timelines
- How do we improve?
 - Communicate concerns
 - Ask for help
 - Put safety first
 - Do some personal inventory and decide if the pressure you are feeling is self induced!
 - Use the All Stop Authority if necessary



“Through continual learning, we constantly improve the defenses that protect us from the errors all of us can make.” –HPI Philosophy

Human factors are always present in any maintenance/repair related environment. The Dirty Dozen is a great summary of some of the most common causes of errors. As mechanics we often unknowingly use these things to be successful and safe on the jobsite.



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