

HFA Plus+

HFA Plus+ Risk Analysis CLIENT REPORT

Client 648: PROGRESSIVE AVIATION
SOLUTIONS MASTER

Compiled By: Steven Wright

Job Title: The boss man

Location: Perth

Telephone:

Email: admin@progressiveaviation.com.au

Address:

Date Compiled: 12 / 05 / 2015 12:01:56 AM



Copyright © 2000-2014 Psyfactors Pty Ltd

Suite 615, 370 St Kilda Rd, Melbourne Vic Australia 3004 ph: +61 3 9645 9800

Report on: **The boss man / Perth** 12 / 05 / 2015 12:01 AM

SURVEY DESCRIPTION

The HFA plus+ survey is a Human Factors Analysis which is designed to identify the human contribution to incidents. The tool is augmented with a 'Workload' score as an aid to understanding the potential severity and likely reduction in safe performance in specific roles. The inclusion of the differentially assessed workload measure assists in dimensioning the human variable in an investigation process or as the target for training and prevention efforts. The HFA Plus+ is a comprehensive human error framework for rapid risk analysis through 12 major categories of role related human failure and limitations in safety performance and compares with the Reason model of latent and precursor attributes and the HFACS taxonomy of errors and violations by Weigmann and Shappell.

SUMMARY OF RESULTS

Job Title

The boss man

Location

Perth

Brief description of the job.

Forklift operator

Credentials & Experience Required for the Role

Forklift operators license

Nature of Major Hazards in the Role

Moving Vehicles. Confined work areas, Stacked goods, Shared pedestrian and vehicle spaces,

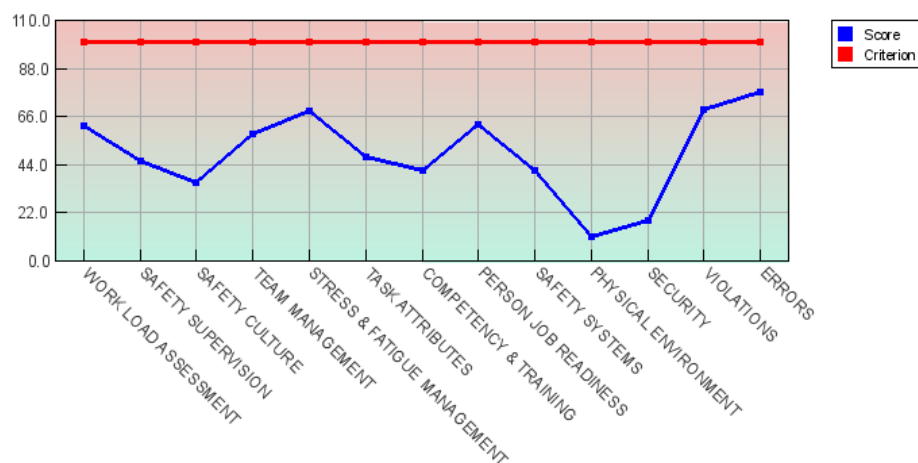
Specific OHS Skills Required

Drive forklift, visual acuity, licence

Job Risk Index: 43 / 100

● Responses on this survey indicate perceptions of safety that are marginally below requirements indicating a slightly elevated risk level. The subjective load index rating of % primarily involving indicating , suggests the need for a review of the impact that the role makes on individuals.

FACTOR SCORES



Analysis indicates the following identified areas of risk:

- Perceived authority, vigilance and consultative aspects of the supervisor role supporting safe behaviour.
- Capacity for timely and competent medical attention in the event of incidents or accidents
- Enhancing safety performance through management of fatigue and diminished ability to respond in an appropriate way.
- Maintaining capability and safety in performance through timely breaks and meals.
- Extent of the potential for error stemming from any lack of accuracy and currency of instructions and procedures.
- Potential for inexperienced use of specific tools and equipment due to ambiguous methods and instruction
- Extent of the potential to ignore SOP's when using unauthorized shortcuts to procedures.
- Managing the potential for carelessness and expediency from developed habit or complacency.
- Management of safety diligent behaviours and motivation due to task fatigue.
- Utilising well designed selection criteria to identify skilled, motivated competent persons for critical roles.
- Provision of training provided to improve dietary and exercise habits to complement task performance
- Determining task limitations of individuals when rotating or changing jobs in the organisation.
- Limiting risk potential at selection due to physical limitations of individuals

Report on: **The boss man / Perth** 12 / 05 / 2015 12:01 AM

- Extent of a systematic and fully documented safety plan designed for the local area.
- Extent of the risk because of the non-use of recommended protective clothing.
- Measures the tendency to error prone judgement and behaviours.
- Measures the extent of vulnerability due to ignorance and poor training
- Measures the vulnerability to operator breakdown and cognitive failure.

WORK LOAD ASSESSMENT

Subjective Estimate of Work Load

Contribution to Safety & Productivity

The multidimensional, evaluation of subjective experience of workload provides an index score based on specific sources relevant to task strain contributing to a global workload rating. Elements include mental demand, physical demand, temporal demand, performance, effort and frustration level.

Effect on Safety & Performance (Risk score of 62%)

Responses on the multidimensional, evaluation of subjective experience of workload indicates a higher impact global workload rating of % primarily involving " indicating in achieving job objectives.

SAFETY SUPERVISION

Peer Support & Review

Contribution to Safety & Productivity

Safety reinforced by team members through vigilance, responsibility for each other and preparedness to meet or exceed specified standards of safety. Addresses the issue of informal group norms and any risk subculture.

Effect on Safety & Performance (Risk score of 38%)

Steven's reported a perception of a moderate to acceptable degree of safety awareness by team members by way of vigilance, responsibility for each other and preparedness to meet or exceed specified standards of safety. Suggests a generally positive safety environment requiring further reinforcement.

Safety Monitoring (OHS Staff)

Contribution to Safety & Productivity

Cooperation and compliance with OHS reporting procedures to ensure all incidents become known and are targeted by responsible persons. Addresses the issue of accountability through open declaration.

Effect on Safety & Performance (Risk score of 25%)

Steven's perception of cooperation and compliance with OHS reporting procedures to ensure all incidents become known and are targeted by responsible persons through open declaration was reported at a moderate to acceptable level indicating an infrequent tendency for individuals in this area to hide mistakes and near misses.

Supervisor Role

Contribution to Safety & Productivity

Denotes the authority, vigilance and consultative aspects of the role impacting safety behaviour, process, equipment and timely information. Addresses the behavioural consequence and accountability for workgroup members.

Effect on Safety & Performance (Risk score of 75%)

Steven's perception of the authority, vigilance and consultative aspects of the supervisor role, impacting safety behaviour, process, equipment and timely information to members was reported at a lower level mostly negating any consequences for non compliance with safety rules for workgroup members.

SAFETY CULTURE

Area Safety Culture

Contribution to Safety & Productivity

The established normative behaviour at the workgroup level, emphasized by the prioritization, communication and immediacy of action regarding safety matters. Addresses the behavioural motivation of the groups.

Effect on Safety & Performance (Risk score of 8%)

Steven perception regarding the safety of the area involving attitudes, involvement and responsive of others was at a very high level indicating a particularly low risk and a high need for persons to comply with the safety culture being promoted in the area..

OHS Procedures

Contribution to Safety & Productivity

Safety procedures reinforce the workgroup and organizational safety cultural norm by being actionable, clear and comprehensive. Addresses the functional issue of reducing ambiguity and confusion.

Effect on Safety & Performance (Risk score of 33%)

Steven perception of safety procedures as being actionable, clear and comprehensive, in turn addressing the potential for ambiguity and confusion was at a high level indicating a low risk for the area.

Report on: **The boss man / Perth** 12 / 05 / 2015 12:01 AM

Organisational Safety Culture

Contribution to Safety & Productivity

Visibility of the organizations commitment and imperatives regarding safety. Identifies the background normative behaviour for a high safety culture. Addresses the safety belief system through unified language and action.

Effect on Safety & Performance (Risk score of 67%)

Steven's perception of the visibility of the organisations commitment and imperatives regarding safety by way of a background of normative behaviour and unified common language safety belief system, was at the poor level indicating insufficient relevant communication and action in the area.

TEAM MANAGEMENT

Grievance & Harassment Procedures

Contribution to Safety & Productivity

Extent of the organizations preparedness to hear members complaints and protect them. Addresses the trust and compliance dimension

Effect on Safety & Performance (Risk score of 58%)

Steven's perception and awareness of the organisations preparedness to hear members complaints and protect them, ensuring trust and compliance by members, was at a moderate level suggesting an occasionally cooperative relationship between management and the team.

Team Development & Training

Contribution to Safety & Productivity

Involves safety specific instruction and development of teamwork. Addresses safety through awareness, participation and involvement.

Effect on Safety & Performance (Risk score of 50%)

Steven's perceptions of the extent of safety specific instruction and teamwork development in the work area which addresses safety through awareness, participation and involvement was indicated at the moderate level, suggesting that relevant safety focused programs were seen as having some impact in the workplace and on individual behaviour.

Work Group relations

Contribution to Safety & Productivity

Defined by team members relationships through the authority, contribution and cooperation in working together. Addresses safety motivation through the readiness for members to do their part.

Effect on Safety & Performance (Risk score of 67%)

Steven's perception of work group relations as defined by team members relationships through the authority, contribution and cooperation in working together to enhance safety motivation and compliance, was at a moderate level suggesting the possibility of a competitiveness and lack of acceptable cohesion or cooperation within the team.

STRESS & FATIGUE MANAGEMENT

EAP Programs

Contribution to Safety & Productivity

Concerned with the reduction of risk by providing stress debriefing and counseling facilities.

Effect on Safety & Performance (Risk score of 25%)

Steven reports a moderate to good awareness of access (if the hazard level of workplace or environment requires) to stress debriefing and counseling professionals suggesting a reduced potential for this area to compound catastrophic events with further individual breakdowns rather than contain them.

First Aid Facilities

Contribution to Safety & Productivity

Concerned with the capacity for suitable first aid response and competent attention for injuries on site in the event of incidents or accidents.

Effect on Safety & Performance (Risk score of 75%)

Steven reports a low level of awareness of the availability of a suitable response by way of competent first aid attention in the event of accidents, suggesting a moderately high risk due to a lack of attention or inappropriate action in the event of a disaster.

Shift Work Management

Contribution to Safety & Productivity

Concerned with the breakdown in safety performance behaviours due to sleep-loss fatigue through the diminished ability to identify and respond in an appropriate and timely way to emerging or escalating risks.

Effect on Safety & Performance (Risk score of 75%)

Steven reports a low level of awareness regarding the potential for breakdown in safety behaviours due to sleep-loss fatigue resulting from shift work changes and timing, in this area, suggesting a risk potential for incidents due to forgetfulness, poorer coordination, interpersonal cooperativeness and a lack of responsiveness to critical operations or events.

Report on: **The boss man / Perth** 12 / 05 / 2015 12:01 AM

Work Breaks & Meals

Contribution to Safety & Productivity

Concerned with the need to maintain energy, attention and general physiological comfort by breaks and meals.

Effect on Safety & Performance (Risk score of 100%)

Steven reports a significant absence of adequate access to timely work breaks and meals (food) in this area, suggesting a higher risk potential for incidents due to decreases in energy, attention span and general physiological comfort impacting individual performance and capability.

TASK ATTRIBUTES

Multitasking Requirement

Contribution to Safety & Productivity

Concerned with potential for error through split attention and inadequate mental processing due to excessive and simultaneous cognitive demands

Effect on Safety & Performance (Risk score of 25%)

Steven reports a lesser concern with the potential for error resulting from the high mental load experienced in the area (on the task) indicating a minor potential only for split attention and excessive and simultaneous cognitive demands to fatigue, distract or confound sound safety behaviour.

Task Ambiguity

Contribution to Safety & Productivity

Concerns the potential for error in judgments through indecision due to ambiguity in tasks, methods and instructions increasing the potential for error in perceptions and judgments, hesitation and indecision risking operator impulsivity or freezing (non-action).

Effect on Safety & Performance (Risk score of 0%)

Steven's reports little or no ambiguity contained in the assigned tasks suggesting a negligible possibility for error in judgments leading to hazardous behaviours due to critical inaction (freezing) or impulsive (poorly considered) decisions.

Task Attention

Contribution to Safety & Productivity

Concerned with potential for error in hazardous areas, due to the environmental conditions and variability of the operator to maintain attention and the necessary level of concentration required to accomplish the assigned task(s).

Effect on Safety & Performance (Risk score of 0%)

Steven's indicates a an absence of potential error due to the concentration span needed to accomplish assigned task(s) suggesting little possibility of fatigue and wandering attention in the work of the area

Task Complexity

Contribution to Safety & Productivity

Concerns the opportunity for error due to complexity of the task requiring constant attention and with demands on cognitive abilities in maintaining short term memory and recall of intentions under distracting conditions.

Effect on Safety & Performance (Risk score of 0%)

Steven reports little to no opportunity for error because of the complexity of the task and any demand on cognitive abilities including memory, suggesting little possibility of risks such as expedient short cuts, mistakes due to forgetting, stress and reduced capacity from pressure and fatigue.

Task Documentation

Contribution to Safety & Productivity

Concerns the potential for error stemming from the extent to which information regarding the tasks are readily available, accurate and current for the work of the area with respect to safety requirements and operation.

Effect on Safety & Performance (Risk score of 75%)

Steven indicates a concern for the potential for error stemming from the accuracy and currency of instructions and procedures regarding the tasks or work of the area, suggesting the possibility of safety requirements being ignored and of hazards being created through unverified equipment settings, components and operation.

Task Equipment Usability

Contribution to Safety & Productivity

Concerns the risk of non compliance with designated procedures and inexpert use of specific tools and equipment due to ambiguous methods and instructions of equipment required to accomplish the assigned task.

Effect on Safety & Performance (Risk score of 100%)

Steven reports a significantly high concern for the risk of non compliance regarding the ease of use or unambiguous usability of specific tools and equipment required to accomplish the assigned task, suggesting the real risk of hazardous assembly, dismantling, maintenance and correction. activities to equipment leading to personal injury and system disruption.

Task Process Compliance

Contribution to Safety & Productivity

Non compliance concerns the potential to ignore standard operating procedure and expand the level of risk in the task by finding unauthorized and expedient shortcuts to procedures.

Effect on Safety & Performance (Risk score of 75%)

Steven reports a high concern for this area, for the potential to ignore standard operating procedure by finding unauthorized shortcuts to procedures, suggesting the possibility of either production pressures, task and equipment usability, inadequate training or inadequate commitment to safety in the area.

Report on: **The boss man / Perth** 12 / 05 / 2015 12:01 AM

Task Repetitiveness

Contribution to Safety & Productivity

Concerns the potential for error through complacency generated by habits and boredom due to repetitiveness in tasks or the area overall, leading to careless actions and assumptions regarding the equipment and environment.

Effect on Safety & Performance (Risk score of 50%)

Steven reports a moderate concern for the potential for error resulting from boredom or habituated responses due to repetitiveness in tasks or the area overall, resulting in careless actions and assumptions regarding the equipment and environment, suggests the need for either periodic job rotation, increased frequency of work breaks, physical re-arrangement of the workers position, changes to temperature, sound and light in the immediate work area.

Task Rotation

Contribution to Safety & Productivity

Concerned with the need for variety and skill development through changing perspective, to diminish the potential for carelessness and expediency from habit, assumption and loss of motivation.

Effect on Safety & Performance (Risk score of 75%)

Steven reports little ability to rotate tasks in this area, which if necessary could reduce the potential risk from carelessness and expediency resulting from habit, assumption and loss of motivation to adhere to specified procedures.

Task Work Period

Contribution to Safety & Productivity

Concerns the potential for breakdown in attention span, motivation, safety diligent behaviours and motivation due to task fatigue resulting from extended or unrelieved work periods.

Effect on Safety & Performance (Risk score of 75%)

Steven reports a concern with the task work periods in the area, suggesting the risk of task fatigue causing a breakdown in attention span, motivation and safety diligent behaviours.

COMPETENCY & TRAINING

Competency Review

Contribution to Safety & Productivity

Activity related to regular and timely review of task competency preventing the possibility of risk in decline in task performance and corresponding safety diligence.

Effect on Safety & Performance (Risk score of 0%)

Steven reports a constant and timely review of task competency preventing the possibility of risk in decline in task performance and corresponding safety diligence.

Job & Task Training

Contribution to Safety & Productivity

Concerned with the need to avoid the development of non safety compliant task procedures from 'hand-me-down training'.

Effect on Safety & Performance (Risk score of 25%)

Steven reports a moderate to acceptable level of formal job and task training, suggesting a low risk of development of non safety compliant task procedures due to 'hand-me-down training'.

Role Selection Criteria

Contribution to Safety & Productivity

Concerns the potential for gross error by utilising poorly skilled, motivated, or less competent persons in specific roles. ('square pegs in round holes').

Effect on Safety & Performance (Risk score of 100%)

Steven reports no evident selection criteria for the role in this area, suggesting a high potential for gross safety errors by utilising poorly skilled, motivated, or less competent persons in the role.

PERSON JOB READINESS

Balance, coordination and visual acuity

Contribution to Safety & Productivity

Concerned with the reduction in risk emanating from physiological limitations in operating safely in the role. Involving ability to balance, physical coordination and visual acuity, depth perception and colour as may be required to prevent mishaps and errors.

Effect on Safety & Performance (Risk score of 50%)

Steven reports a moderate awareness of job readiness assessments for this area, involving examination for ability to balance, physical coordination and visual acuity, depth perception and colour as may be required for the role, suggesting a lesser risk potential for safety incidents where individual limitations are exceeded or capacity reduced due to other factors such as fatigue etc.

Report on: **The boss man / Perth** 12 / 05 / 2015 12:01 AM

Exercise & Diet

Contribution to Safety & Productivity

Concerns the reduction of risk through advice, instruction or training provided to ensure required cognitive-physiological performance through better dietary and exercise habits and to defend against degrades in alertness and responsiveness.

Effect on Safety & Performance (Risk score of 75%)

Steven reports a low awareness of any advice, instruction or training provided to modify dietary and exercise habits to complement task needs, in this area, suggesting where functions are performance critical in terms of relying on alertness and responsiveness of an operator, a greater risk potential through possible degrades in cognitive-physiological performance resulting from poor diet and exercise habits. (for example; typical after lunch sluggishness produced by fatty foods and poor exercise habits).

Job Change Medical & Infirmity Checks

Contribution to Safety & Productivity

Concerned with physical incapacity hazard trapping at the job / role change interface.

Effect on Safety & Performance (Risk score of 75%)

Steven reports a low awareness of any medical checks to determine task limitations when rotating or changing jobs in the organisation, suggesting a greater risk potential for a hazard to be introduced due individual limitations acceptable in one area but becoming functionally critical in another non equivalent area.

Medical & Infirmity Checks

Contribution to Safety & Productivity

Concerned with the elimination of hazard by establishing physical capacity for the role at selection.

Effect on Safety & Performance (Risk score of 75%)

Steven reports a low awareness of any medical checks to determine physical and task limitations at time of selection and placement within the organisation, suggesting a greater risk potential for a hazard to be introduced due to individual limitations not evident at interview or in the candidates biographical data.

Medication & Substance Abuse

Contribution to Safety & Productivity

The elimination of unpredictable or hazardous behaviours consequent to therapeutic prescriptions and drug abuse.

Effect on Safety & Performance (Risk score of 50%)

Steven reports a moderate awareness of checks conducted to determine medication or unauthorised substance usage either at time of selection and placement or periodically within the organisation, suggesting a lesser risk potential for a hazard to be introduced (when in proximity to production or mobile equipment, chemicals or control switches) due to marked performance degrades which may not be immediately evident to other team members or supervisory personnel.

Psychological Evaluations

Contribution to Safety & Productivity

Concerned with the reduction in potential hazards by screening out unpredictable individuals from major hazard facilities.

Effect on Safety & Performance (Risk score of 50%)

Steven reports a moderate awareness of psychological evaluations conducted to detect propensity to critical instability at time of selection and placement or once working within the organisation, suggesting a lesser risk potential for a hazard to be introduced into the work area (when in proximity to production or mobile equipment, chemicals or control switches) due to a marked degrade in performance.

SAFETY SYSTEMS

Area Restricted Access

Contribution to Safety & Productivity

Concerned with the potential for individuals lacking in area specific safety knowledge and training to enter and violate safety rules.

Effect on Safety & Performance (Risk score of 50%)

Steven reports a moderate concern regarding the potential of individuals lacking in area specific safety knowledge to enter and create a hazard by violating safety rules, suggesting a need to review (if in a major hazard environment) safeguards to unauthorised entry to the area.

Emergency Procedures Training

Contribution to Safety & Productivity

Concerned with the existence of the adequacy of task and emergency safety training, procedures and periodic reinforcement in the role.

Effect on Safety & Performance (Risk score of 0%)

Steven reports a negligible concern regarding the existence of emergency procedures training, suggesting only the need to maintain safeguards to avoid breakdown in safety in the area.

Report on: **The boss man / Perth** 12 / 05 / 2015 12:01 AM

Equipment Safety Certification

Contribution to Safety & Productivity

Concerned with the potential for use of unauthorized tools which could create a hazard (ie, sparks, breakage or wear), possibly due to scarcity or usability issues with tools necessary for specific tasks.

Effect on Safety & Performance (Risk score of 25%)

Steven reports a minor concern only with the potential and opportunity for the use of unauthorized tools (possibly due to scarcity or usability issues of tools) to create a hazard (ie, cause sparks) in the area, suggesting the need to maintain the facilities for the area where they are required.

Informed Area Safety System

Contribution to Safety & Productivity

Concerned with the hazard created through the existence of generalized safety procedures rather than a systematic and fully documented process, fully informed of the special needs of the local area.

Effect on Safety & Performance (Risk score of 75%)

Steven reports a concern for the hazard potential created for individuals through a generalised and poorly informed local area safety procedure, suggesting the timely need to formulate, train and trial safety response procedures to test their workability.

Protective Clothing

Contribution to Safety & Productivity

Concerned with the potential for hazard because of the non-use of recommended non flammable, non electrostatic, non absorbant, acid repellent garments, boots, gloves and hard hats where specified for the area.

Effect on Safety & Performance (Risk score of 100%)

Steven's perception of the potential for hazard because of the non-use of recommended clothing (ie non flammable, non electrostatic, non absorbant, acid repellent, hard hats etc) where specified for the area, suggests an urgent review of the safety requirements, facilities and reasons for non compliance.

Safety Incident Reporting

Contribution to Safety & Productivity

Concerned with the need for 'safety intelligence' from the workplace safety incidence reporting system to rapidly identify remedial or preventative action, and ensure that workplace hazards are addressed.

Effect on Safety & Performance (Risk score of 0%)

Steven reported a high awareness of the existence of the organisations safety incidence reporting system to gather 'safety intelligence' from the workplace for remedial and preventative action, suggesting the need only to maintain commitment to the flow of information so that workplace hazards would continue to be addressed as necessary.

PHYSICAL ENVIRONMENT

Heating, Cooling & Drafts

Contribution to Safety & Productivity

Concerned with the potential for degrade in performance due to distraction and discomfort in working in the area caused by changes in heating, cooling and drafts, potentially affecting the accuracy of observations, communications, physical responsiveness and preoccupation.

Effect on Safety & Performance (Risk score of 0%)

Steven reports the existence of significant defenses to discomfort and distraction caused by changes in heating, cooling and drafts, suggesting a negligible risk and potential of incomplete observations, mistakes in assimilating or communicating data, poor responsiveness and preoccupation affecting the accuracy of tasks in the area.

Housekeeping & Cleanliness

Contribution to Safety & Productivity

Concerned with safety by eliminating the potential for non process related hazards such as trips, slips and other impact or contamination incidents due to poor housekeeping.

Effect on Safety & Performance (Risk score of 25%)

Steven reports a greater level of attention to the maintenance of an uncluttered, obstacle free and clean environment where components are not stored in random spaces, discarded objects are promptly removed and spilled materials are quickly mopped up, suggesting a lesser risk or potential for trips, slips and other impact or contamination incidents.

Lighting

Contribution to Safety & Productivity

Concerned with the potential for error caused by poor vision, identification of process or equipment status and judgment.

Effect on Safety & Performance (Risk score of 25%)

Steven reports consistent attention to the quality of the lighting of the area, suggesting a significantly low potential for error caused by poor vision, identification of process or equipment status and judgment.

Report on: **The boss man / Perth** 12 / 05 / 2015 12:01 AM

Mobile Equipment

Contribution to Safety & Productivity

Concerned with the hazard potential emanating from unpredictable fast moving machinery in proximity to people and materials.

Effect on Safety & Performance (Risk score of 0%)

Steven reports the widespread existence of alerting mechanisms such as distinctive sound tones, signals or lights warning of machinery in operation in this area, suggesting a negligible level of risk potential emanating from unpredictable fast moving machinery (plant or trucks) in proximity to people and materials.

Noise Levels

Contribution to Safety & Productivity

Concerned with the degrade in cognitive performance and mood due to excessive or prolonged noise.

Effect on Safety & Performance (Risk score of 25%)

Steven reports that there is a good level of protection against high and sustained noise levels in the area, suggesting a significantly lesser risk and potential for degrade in cognitive performance and mood due to excessive or prolonged noise.

Open to Distractions

Contribution to Safety & Productivity

Concerned with the potential for error and injury because of unexpected distractions due to the open-ness of the task area to bypassing pedestrian traffic, people, animals, environmental conditions or unexpected or unscheduled operations.

Effect on Safety & Performance (Risk score of 0%)

Steven reports a high level of awareness of existing safeguards or procedures that prevent unexpected distractions from people, animals, environmental conditions or unexpected or unscheduled operations, suggesting (where operations requiring close attention and intervention or operation by the worker are critical) a negligible risk or potential for error and injury in the area.

Proximity to Chemicals & Gases

Contribution to Safety & Productivity

Concerned with the potential hazard created by noxious or debilitating chemicals and vapors or gases.

Effect on Safety & Performance (Risk score of 25%)

Steven reports a lower level of unprotected exposure to noxious or debilitating chemicals, vapors or gases in the area, suggesting a minimal risk of degrade in human performance, judgement and coordination with prolonged exposure, creating a short and long term safety hazard

Vibration & Oscillation

Contribution to Safety & Productivity

Concerned with the degrade in cognitive performance and physical sensitivity with prolonged vibration and movement.

Effect on Safety & Performance (Risk score of 0%)

Steven reports a high level of protection from vibration and/or oscillation due to equipment operating in the area, suggesting no risk or potential for a degrade in cognitive performance and physical sensitivity with prolonged exposure, to create a safety hazard.

Weather Exposure

Contribution to Safety & Productivity

Concerned with the potential risk of buffetting, slips, short circuits and ignition hazards through excessive wind, water and lightning strikes.

Effect on Safety & Performance (Risk score of 0%)

Steven reports a very high level of protection against excessive wind, water and or lightning strikes, suggesting a negligible degree of risk or potential for hazard through buffetting, slips, short circuits and ignition in the area.

SECURITY

Deviant Behaviour

Contribution to Safety & Productivity

Concerned with the potential for hazardous actions because of excessively neurotic motivation or pathological behaviours.

Effect on Safety & Performance (Risk score of 0%)

Steven reports a distinct awareness of the policy of removal of personnel due to deviant behaviour in the area, suggesting a negligible risk or hazard potential caused by those with excessively neurotic motivation and behaviour.

Malicious Behaviour

Contribution to Safety & Productivity

Concerned with the opportunity for a revengeful person to create a safety hazard by interfering or disrupting the work or people in the area.

Effect on Safety & Performance (Risk score of 25%)

Steven reports a very minor possibility of the opportunity for a revengeful person to create a safety hazard by interfering or disrupting the work or people in the area, suggesting the need to identify any additional safeguards and responses need for for such a situation.

Report on: **The boss man / Perth** 12 / 05 / 2015 12:01 AM

Sabotage

Contribution to Safety & Productivity

Concerned with the potential for significant damage and injury because of politically motivated or malevolent actions.

Effect on Safety & Performance (Risk score of 25%)

Steven reports a minor possibility only (because of existing safeguards) of the opportunity for politically motivated action to create a safety hazard by purposefully sabotaging and disrupting the work or people in the area, suggesting some need to identify further procedural safeguards and responses to such a situation.

Wilful Rule Breaking

Contribution to Safety & Productivity

Concerned with the hazard potential created by individuals with a pathological, anti-authority or macho agenda to create a safety hazard through reactive, impulsive and contrary behaviour to the safety rules, behavioural norms and established procedures established to ensure safety.

Effect on Safety & Performance (Risk score of 25%)

Steven reports a minor possibility only (because of existing safeguards) of the opportunity for individuals with an anti-authority agenda to create a safety hazard through reactive, impulsive and contrary behaviour to the safety rules, behavioural norms and established procedures, suggesting the need (in a major hazard environment) to maintain rigor in screening for work in the area.

VIOLATIONS

Unsafe acts include violations. Violations include often routine practices either missed or condoned by supervisors, that bend the rules; including deviating from accepted procedures to save time, bending a clear rule; in responding to perceived pressure the worker omits part of the necessary process and either passes the work to the next person or signs off the work as having been done; and a worker willfully and flagrantly breaks SOP rules without regard to the consequences.

Routine & Flagrant Violations

Contribution to Safety & Productivity

Violations are due to routine or incidental preferences to execute a task in a particular way outside of the standard and specified operating procedure. Violations may occur due to expediency, laziness, ignorance and disdain for the system rules or copied from others. Violations are typically found where perceptions of supervisory inattention or a lesser accountability exists.

Effect on Safety & Performance (Risk score of 69%)

Responses indicate a slightly below required level of defence and supervisory accountability to incidental or systematic violations which may be due to routine or incidental personal preferences to execute a task according to non standard or expedient operating procedures.

ERRORS

Errors acts are active failures which directly or indirectly cause mishaps, or lead to a latent condition or situation that an operator would have to respond to during a some aspect of their work. These typically include cognitive and behavioural, skill based errors and errors of judgement.

Cognitive Behavioural Errors

Contribution to Safety & Productivity

Concerns the potential for safety and performance impacts due to role demands and operator limitations in timely recognition of hazards, distractions and interruptions and the need to recall information important for continued safety.

Effect on Safety & Performance (Risk score of 92%)

Reports an acceptable level of defence and lesser vulnerability in the role, in addressing the potential for safety and performance impacts due to role demands and operator limitations in timely recognition of hazards, distractions and interruptions and the need to recall information important for continued safety.

Errors due to Skills and Technique

Contribution to Safety & Productivity

Concerns the potential for hazards to be created in the role due to a lack of adequate screening, training and continued monitoring of operators skills and techniques of task execution, resulting in perpetuation of error and error-prone behaviour.

Effect on Safety & Performance (Risk score of 75%)

Reports a slightly greater than acceptable level of vulnerability in the role, with respect to the potential for hazards to be created due to a lack of adequate screening, training and continued monitoring of operators skills and techniques of task execution, resulting in perpetuation of error and error-prone behaviour.

Judgement & Decision Making

Contribution to Safety & Productivity

Concerns the potential for safety and performance impacts due to role demands and operator limitations of competency with respect to exceeding personal ability to execute the task, the opportunity to misperceive or misjudge the situation and act with a less accurate diagnosis of any task problem.

Effect on Safety & Performance (Risk score of 75%)

Reports the role has a slightly greater level of vulnerability with respect to the potential for safety and performance impacts due to lesser operator competency in executing the task as required and in accurately perceiving, comprehending and projecting any non-routine task problem.

Report on: **The boss man / Perth** 12 / 05 / 2015 12:01 AM

Knowledge & Rule Based Errors

Contribution to Safety & Productivity

Concens the opportunity for unconscious incompetence or non compliance of general and specific task requirements including skipped procedures, inappropriate use of tools and equipment careless acceptance of work and standards which could impact downstream operations and safety of the total system and that of other personnel.

Effect on Safety & Performance (Risk score of 67%)

Reports a slightly greater than acceptable level of vulnerability in the role, with respect to the potential for unconscious incompetence or non compliance of general and specific task requirements, to impact downstream operations and the safety of the total system and that of other personnel.

Report on: **The boss man / Perth** 12 / 05 / 2015 12:01 AM

ANALYSIS GUIDE & ALERTS

Induced complacency and states of low awareness

Responses indicate that there may be a risk due to induced complacency or low awareness states in the role. Reliability, dependency and longer periods of inactivity tend to reduce cognitive activity and attention such as where expectations are established that the actions of others will be compliant and that the working environment will be inherently safe. to the point where individuals can fall asleep without knowing it. This diminished attention is often a consequence of the complacency that can develop when a person has little or no direct experience of workplace events that deviate from safety, compliance or procedural requirements.

Highly automated environments can also create a routine and highly dangerous expectation that things will always be as they should and that verification is not necessary. Complacency results in reduced vigilance, and hence, lesser ability to respond when necessary, i.e. during an emerging risk or other hazardous situation. If found to be a significant risk factor Incumbents for the role should be assessed for their understanding regarding complacent behaviours, self awareness and their defensive habits to withstand It are recommended.

Summary of possible indicators

- Seen to descend into daydreaming
- Is easily distracted from their primary task
- fails to hear or ignores what is going on nearby
- avoids difficult or demanding tasks
- shows signs of fatigue
- has an incomplete mental picture of the situation
- not alert or mind goes blank when stressed
- failure to check leads to poor task completion
- will tolerate ambiguity and ignore uncertainty
- makes decisions based on incomplete facts
- is unlikely to recognise a visible problem
- tends not to inform others of important issues

Possible Impacts on performance

In general, people with a tendency to complacency (a form of mental laziness) have few checking or confirmatory behaviours that ensure they remain safe or compliant with any degree of certainty or precision. They typically show an easy acceptance for and reliance upon the words or actions of others and which is characteristic of people who perceive they have a low level of personal responsibility for outcomes. Their lack of any effective monitoring of what is going on around them, or the behaviour of others suggests a greater likelihood they will ignore the signs of a progressive buildup of risk in operations and a likelihood they will react with ineffective actions to emergencies.

What mechanisms are there in the role to defend against complacency?

Example exploratory questions:

1. Are incumbents kept in the loop, informed of system status, intentions, expectations or changing standards?
2. What sort of things are mandated for incumbents to ensure everything is operating in their area as it should?
3. Are people likely to inform others of concerns or changes at shift changeover?
4. Are incumbents informed of the circumstances in which they should do nothing?
5. Are incumbents informed of the immediate process and persons to be involved when contradictory information presents itself that is different from what it usually is?
6. What should happen to someone who falls asleep while on duty?

Role exposes incumbents to distractions

Responses indicated a greater vulnerability and opportunity for distraction with the danger of losing track/awareness of the present task when interrupted. You should consider the potential severity of this by reviewing results of the subjective work load scale. If results on the work load scales is low low, it more strongly indicates that cognitive tunnelling may be induced. An aspect that is consistent with the findings that distraction is a form of misdirected attention.

Summary of observed indicators

- person drifts off and daydreams
- easily diverted from their own primary task
- changes focus when startled or surprised
- unresolved task issues invite fixation of attention
- task load induces fatigue and need for relief
- distraction renders an incomplete mental picture of the situation
- mind goes blank when the task is ambiguous
- uncertainty leads to confusion and forgetfulness
- poor decisions due to uncertainty of what is fact

Possible impacts on performance

Some situations that invite distractions are often emotionally prompted by some internal stress or a demanding task which could range from feelings of boredom to panic with a corresponding need for emotional release and is different from externally generated and sudden multiple distractors demanding attention, like when a job goes wrong. The split of attention and loss of continuity in the circumstances will likely result in a loss of 'situational awareness'. Also, sudden demands distract creating confusion and inappropriate action or indecisiveness due to uncertainty and ambiguity.

What mechanisms are there in the role to prevent distractions interfering with task safety?

Example exploratory questions:

1. Are incumbents in the role trained in recognising personal signs that signify potential loss of attention?
2. What sort of techniques or characteristics of the task help incumbents remain attentive?
3. Is the task subject to sudden changes where a threat can demand attention but the task cannot be varied quickly?
4. What means are available for task disengagement to enable emergency attention to be re-assigned elsewhere?
5. Does the role work include shifts in which some tasks are considered tedious and invite compensatory behaviour?

Report on: **The boss man / Perth** 12 / 05 / 2015 12:01 AM

Fatigue Prone Characteristics

Fatigue is the principle precursor to human error across all industrial settings. It is universally recognized as the source of major errors in both high and low risk tasks. Depending on the severity of the fatigue and the complexity of the task, fatigue has been shown to raise the probability of error by a factor of 50 or more.

Summary of fatigue indicators

- forgetfull with poor short term memory
- fails to hear what is going on around them
- slow mentally and unresponsive to signals
- prefers low mental effort tasks
- prefers to rest their body, lean on things
- poor concentration
- unlikely to retain a mental picture of a situation
- tendency to freeze when under stress
- tendency to be reactive with poor quality decisions
- lacks energy settles for incomplete facts

Possible Impacts on performance

Fatigue effects are task dependent, routine, physical and habitual tasks are affected least; vigilance and decision making are affected most. In routine conditions, fatigue effects are masked by apparent or superficial competency and apathy associated with decreased vigilance. People experiencing fatigue typically have reduced levels of performance, safety and productivity, they may fail to identify and appropriately respond to emerging situational risks and may inadvertently place or allow others to enter a situation of risk.

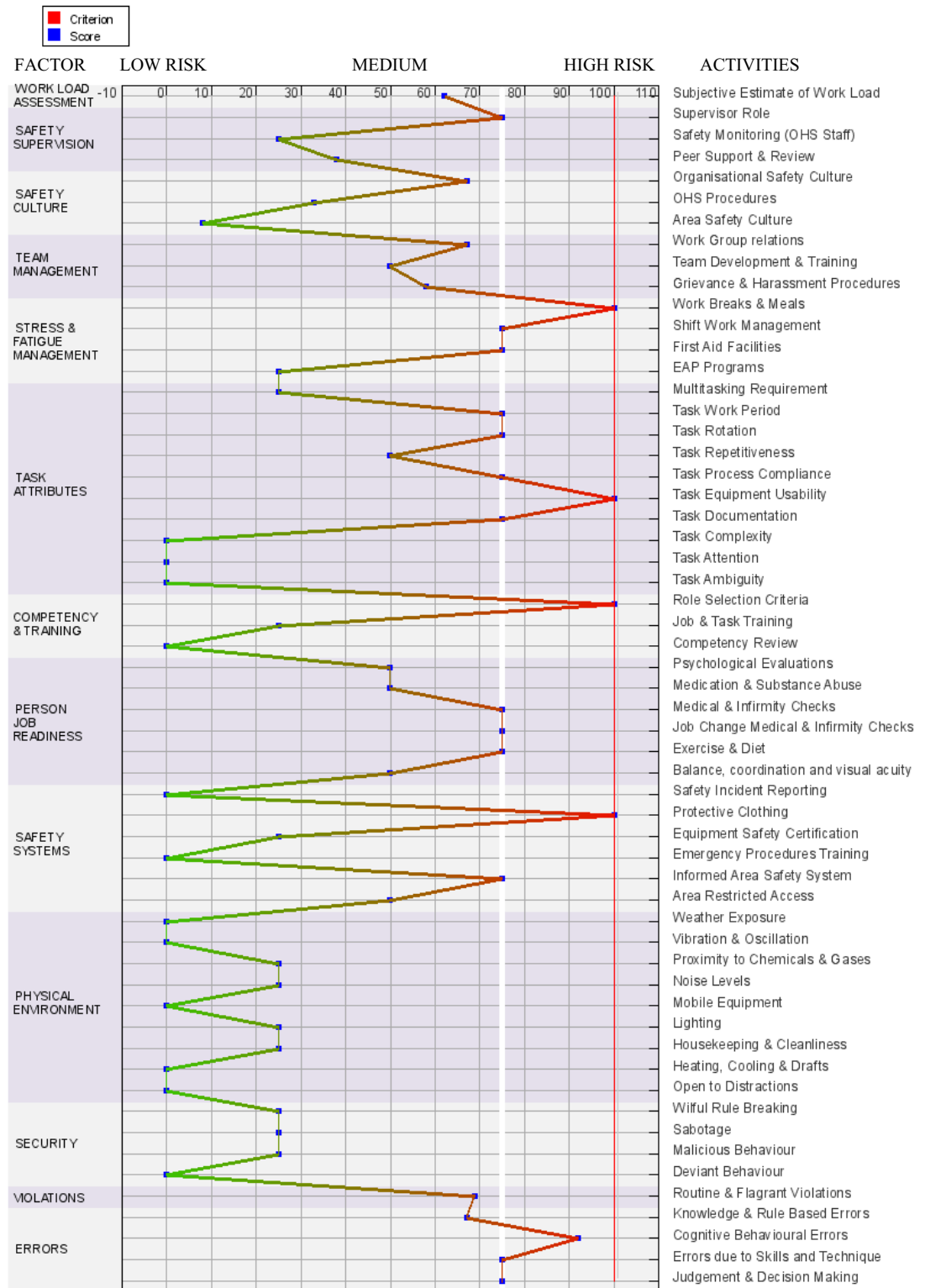
What mechanisms are there in the role to lessen the buildup of fatigue?

Example exploratory questions:

1. Are incumbents advised regarding working with growing fatigue, in the role?
 2. Is there an alternative for those who feel very fatigued and unsafe when driving home at the end of a night shift?
 3. Are there breaks and opportunities for a rest when a person reports over fatigue?
 4. How does the organisation assess the degree of alertness and attention required for the role?
 5. Does the organisation have the ability to take a person who is visibly fatigued off the line?
 6. Are there strategies to move "headwork" up front whenever fatigue effects are likely to impair decisions later?
 7. Has the organisation conducted a fatigue study to determine the best type of shiftwork for the role?
 8. Are there any facilities or opportunities for a 'power nap' to alleviate fatigue during shift hours?
-

Report on: **The boss man / Perth** 12 / 05 / 2015 12:01 AM

Detailed Risk Graph



Report on: **The boss man / Perth** 12 / 05 / 2015 12:01 AM

HFA Plus+ Risk Analysis Structure

WORK LOAD ASSESSMENT

Subjective Estimate of Work Load

SAFETY SUPERVISION

Peer Support & Review
Safety Monitoring (OHS Staff)
Supervisor Role

SAFETY CULTURE

Area Safety Culture
OHS Procedures
Organisational Safety Culture

TEAM MANAGEMENT

Grievance & Harassment Procedures
Team Development & Training
Work Group relations

STRESS & FATIGUE MANAGEMENT

EAP Programs
First Aid Facilities
Shift Work Management
Work Breaks & Meals

TASK ATTRIBUTES

Multitasking Requirement
Task Ambiguity
Task Attention
Task Complexity
Task Documentation
Task Equipment Usability
Task Process Compliance
Task Repetitiveness
Task Rotation
Task Work Period

COMPETENCY & TRAINING

Competency Review
Job & Task Training
Role Selection Criteria

PERSON JOB READINESS

Balance, coordination and visual acuity
Exercise & Diet
Job Change Medical & Infirmary Checks
Medical & Infirmary Checks
Medication & Substance Abuse
Psychological Evaluations

SAFETY SYSTEMS

Area Restricted Access
Emergency Procedures Training
Equipment Safety Certification
Informed Area Safety System
Protective Clothing
Safety Incident Reporting

PHYSICAL ENVIRONMENT

Heating, Cooling & Drafts
Housekeeping & Cleanliness
Lighting
Mobile Equipment
Noise Levels

Open to Distractions
Proximity to Chemicals & Gases
Vibration & Oscillation
Weather Exposure

SECURITY

Deviant Behaviour
Malicious Behaviour
Sabotage
Wilful Rule Breaking

VIOLATIONS

Routine & Flagrant Violations

ERRORS

Cognitive Behavioural Errors
Errors due to Skills and Technique
Judgement & Decision Making
Knowledge & Rule Based Errors