#### NIVEL 2

Nível 2:formação para pessoal que trabalhe com equipamento (basic GSE) como tractores, tapetes, carrinhas, etc.

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#### 1) Safety awareness

- a) A safety culture
- b) Company safety policy and program
- c) Employee responsabilities
- d) Airport airside safety regulations

## 2) Human factors

- a) Motivation, attitude and team work
- b) Stress at work
- c) Ergonomics
- d) The effects of drugs and alcohol abuse

## 3) Procedures and regulations

- a) Regulations(JAR ops,FAA,etc)
- b) Safe operating practices
- c) Emergency procedures
- d) Dangerous Goods Regulations

#### 4) Accidents and Incidents

- a) Causal factors
- b) Personnel injuries
- c) Damage to aircraft, ground equipment and facilities
- d) Accident and incident reporting
- e) The real cost of accidents (direct/indirect costs)

## 5) Personal Protection

- a) Working clothes including Hi-Visibility Clothing
- b) Personal protective equipment for:feet,hands,eyes,knees and hearing
- c) Back injury prevention: lifting and moving loads

- 6) Hazards
  - a) Vehicular traffic
  - b) Aircraft movement(arrival/departure)
  - c) Jet engines
  - d) Propeller driven aircraft and helicopters
  - e) Aircraft antennae and other protrusions
  - f) Aircraft fuelling on the airside and fuel spills
  - g) Adverse weather operations
  - h) Night operations

# 7) Equipment operation

- a) Driver skills and licensing
- b) Inspection and serviceability of vehicles and equipment
- c) Standard Operating Procedures (SOPs)
- d) Equipment specifications and safety
- e) Treatment of equipment,"ramp rage"
- 8) Clean –Up
  - a) FOD
  - b) Vehicle cabs
  - c) Airside areas
  - d) Food refuse

# 9) Emergency situations

- a) Injuries
- b) Natural disasters
- c) Threats
- d) Fuel spills
- e) Fire sources
- f) Fire prevention
- g) Types of fires and extinguishers
- a) Equipment fires
- b) Fires on aircraft
- c) Location of alarms, fuel shut-offs

#### 10) Airside markings

# 11) Hand signals

1	Safety awareness Safety in aviation is a permanent requirement and its first commandement.in the air or on the ground,safety first is the rule.	<ul> <li>A safety culture</li> <li>Training of personnel in correct operating procedures and safe work practices, with the reasons for these procedures and practices, form an integral part of any organisations's structure</li> </ul>
		Company safety policy and program

		Employee responsabilities		
		Airport airside safety regulations		
2	Human factors	Motivation		
		Stress at work		
		<ul> <li>Ergonomics</li> <li>Recognized lifting techniques should be utilised at all times to reduce the risk of personnel injury</li> </ul>		
		<ul> <li>The effects of drugs and alcohol abuse</li> <li>No smoking, alcohol or any banned substances are permitted to be consumed on airside</li> </ul>		
3	Procedures and regulations	<ul> <li>Safe operating practices</li> <li>Jewellery such as rings and indentifications bracelets should not be worn</li> <li>To prevent fingers and hands becoming jammed between objects all load should be slid into place rather than lifted</li> <li>Personnel shall not walk or stand on a moving conveyor belt</li> <li>Personnel should never attempt to jump off or on a moving vehicle</li> <li>Personnel should not be transported on equipment unless there is a seat for them</li> <li>Personnel and equipment must not pass through the arc of a propeller at any time, including when it is stationary</li> </ul>		
		Emergency procedures		
		Dangerous Goods Regulations		
4	Accidents and Incidents	Causal factors		

		<ul> <li>Lack of standard procedures</li> <li>Inadequate training</li> <li>Physical circumstances</li> <li>Weather conditions</li> <li>Noise</li> <li>Congestion</li> <li>Limited space</li> <li>Regulations/procedures not followed</li> <li>Standard operating procedures</li> <li>Safety regulations</li> <li>Validity of operator certification</li> </ul>
		Personnel injuries  • Always be aware of your surroundings
		Damage to aircraft, ground equipment and facilities
		<ul> <li>Accident and incident reporting</li> <li>All accidents must be repported immediatly to an airport operations officer</li> </ul>
		<ul> <li>The real cost of accidents (direct/indirect costs)</li> <li>FOD costs the aerospace industry \$4 billions         USD per year and causes expensive, significant         damage every year to aircraft and parts and may         cause death and injury to workers, pilots and         passengers.</li> </ul>
5 1	Personal Protection	<ul> <li>Working clothes including Hi-Visibility Clothing</li> <li>Outer garments that contain reflective material and are high visibility colours should be worn by any person whose duties require airside acess</li> <li>Always wear a High Visibility Vest</li> <li>Clothing appropriate to the weather conditions</li> </ul>
		Personal protective equipment for:feet,hands,eyes,knees and hearing  • Safety shoes or boots should be worn to prevent foot injuries

		<ul> <li>Approved hearing protection should be worn when working in noise-intensity areas i.e.on the apron</li> <li>Gloves should be worn by material handling personnel and equipment operators</li> <li>Safety glasses should be worn</li> </ul>
		<ul> <li>Back injury prevention:lifting and moving loads</li> <li>Loads means baggage,cargo,mail and any aircraft supplies including ballast</li> <li>Personnel should assess the weight and never attemp to lift or more than their personal physical capabilities</li> <li>Personnel must not ride up or down on the rear platform of a loader</li> <li>Personnal must not ride on elevating platforms when the vehicle is in drive mode</li> <li>When moving pallets/containers,hands and feet should be kept clear of stops/locks/guides so they do not get caught between the pallet/container and floor hardware</li> <li>Operatores of equipment shall ensure that other personnel are not entrapped by movement of load/pallets/containers either in the aircraft or on the loading equipment</li> </ul>
6 H	Hazards	<ul> <li>Vehicular traffic</li> <li>Never park or stand within 3 meters of any aircraft unless you are directly involved in the servicing of that aircraft</li> <li>Never park or stand within 15 meters of an aircraft being refuelled</li> </ul>
		Aircraft movement(arrival/departure)  • Aircraft always have right of way over vehicles, equipment and pedestrians  •
		<ul> <li>Jet engines</li> <li>Never approach a jet aircraft while its engines are operating</li> <li>An anti-collision beacon is a flashing red light located on the top and/or bottom of every aircraft. The pilot will activate this light when the engines are operating</li> </ul>

		<ul> <li>Propeller driven aircraft and helicopters</li> <li>Personnel should remain clear of propellers ,engine inlets and exhausts until after the engines have spooled down and,in the case of propellers have stopped turning</li> <li>Never approach a propeller driven aircraft whilst its engines are operating</li> </ul>
		Aircraft antennae and other protrusions
		Aircraft fuelling on the airside and fuel spills
		Adverse weather operations  • Low visibility operations (LVO)
		Night operations
7	Equipment operation	Driver skills and licensing
		Inspection and serviceability of vehicles and equipment
		Standard Operating Procedures (SOPs)
		Equipment specifications and safety
		Treatment of equipment,"ramp rage"
8	Clean –Up	<ul> <li>Foreign Object Damage or Foreign Object Debris (FOD) is a substance, debris or article alien to the vehicle or system which would potentially cause damage</li> <li>Loose objects (FOD) dropped onto or observed on the apron must be picked up and put into FOD bins-examples of objects, catering items,bagagge tags/strapps,garbage</li> </ul>
		Vehicle cabs
		Airside areas
		Food refuse
9	Emergency situations	Injuries
		Natural disasters
		Threats

		Fuel spills
		Fire sources
		<ul> <li>Fire prevention</li> <li>Fire prevention is more important than fire fighting</li> <li>Smoking shall not be permitted on any apron aereas or in any vehicles on the apron</li> </ul>
		<ul> <li>Types of fires and extinguishers</li> <li>Personnel should know the types of fire fighting equipment available and should be trained in their use</li> </ul>
		Equipment fires
		Fires on aircraft  • If fire is discovered in a parked aircraft any persons on board should be immediatley advised and evacuated
		<ul> <li>Location of alarms, fuel shut-offs</li> <li>The location of fire-fighting equipment, fire alarms, emergency shut-offs, etc, must be known to personnal</li> <li>Acess to fire-fighting equipment, fire alarms, emergency shut-offs, etc, should not be obstructed</li> </ul>
10	Airside markings	The areas requiring safety markings are  • Service roads  • Aircraft parking stands/gates  • Aprons  • Pedestrian crossing/walkways  • Ground Support Equipment parking areas  • Push back line
11	Hand signals	<ul> <li>GSE signals</li> <li>Aircraft marshalling signals</li> <li>Turn to your left</li> <li>Turn to your right</li> <li>Stop</li> <li>Insert chocks</li> <li>Chocks away</li> <li>Connect/disconnect ground power signals</li> <li>Ground crew push back signals</li> </ul>