

SHES FIELD SERVICE - JOB SAFETY ANALYSIS

TYPE OF JOB--FIELD MACHINING

REQUIRED PERSONAL PROTECTIVE EQUIPMENT
STEEL TOE BOOTS, LEATHER GLOVES, LONG SLEEVES, SAFETY GLASSES, HEARING PROTECTION, FACE SHIELD FOR GRINDING

SEQUENCE OF JOB STEPS	POTENTIAL ACCIDENTS OR HAZARDS	RECOMMENDED SAFE JOB PROCEDURE
1. Recognition of Plant Hazards	Performing Job Task.	1.1.1 Employee Must Have Received Plant Safety Orientation. 1.1.2 Employee Should Receive HASC Training
2. Entry into Plant	2.1 Exposure to heavy industrial hazards 2.2 Exposure to specific Plant Hazards	2.1.1 Wear Proper PPE (See list above) 2.2.1 Use additional PPE Specified by Plant 2.2.1.A Nomex Coveralls 2.2.2.B Cartridge Respirator 2.2.3 Observe & Note Plant Safety Equipment 2.2.3.A Alarms 2.2.3.B Wind Direction Indicators 2.2.3 Evacuation Routes 2.2.3.D Warning Signs 2.2.3.E Safety Showers 2.2.3.F Fire Extinguishers 2.2.3.G Escape Air Packs
3. Spot Equipment	3.1 Possible Collision with Plant Equipment or Vehicles 3.2 Possible Machine Damage	3.1.1 Use Spotter 3.2.1 Secure Machines Properly to Lifting Equipment or Fixed Structure 3.2.2 Insure Machines are not stored in Personnel or Vehicle Traffic Pattern
4. Pre-Job Survey	4.1 Exposure to Hazardous Material 4.2 Elevated Work May Require Scaffold 4.3 Poor Footing 4.4 Combustible Material 4.5 Laceration Due to Sharp Objects	4.1.1 Review MSDS Sheet 4.1.2 Wear Proper PPE 4.1.3 Locate Safety Showers 4.2.1 Examine Scaffolding for Completeness, Sturdiness, and Safety Harness 4.2.2 Insure Scaffolding is large enough for job 4.3.1 Insure Level, Slip Free Surface 4.4.1 Relocate Combustible Materials where possible 4.4.2 Use Fire Blanket to Shield Materials which cannot be relocated 4.4.3 Keep a Fresh Fire Extinguisher in the Work Area 4.5.1 Wear Proper PPE 4.5.2 Flag Danger Areas

5. Set Up Machines	5.1 Machines May Swing or Drop Causing Injury	5.1.1 Insure Proper Lifting Techniques are used to Position Machines 5.1.2 Insure Machines are Securely Fastened to part before lifting equipment is released
	5.2 Hazard from Air Lines	5.2.1 Keep hoses out of heavy traveled areas 5.2.2 Provide boards to prevent hose damage when hoses are on ground 5.2.3 Insure all connections are in good shape 5.2.4 Insure all connections are tight 5.2.5 Insure hoses are in good shape 5.2.6 Insure hoses are not over pressurized
6. Secure Work Area	6.1 Unauthorized personnel in area	6.1.1 Barricade area with danger tape 6.1.2 Do not begin with unauthorized personnel in work area 6.2.2 Shut down if unauthorized personnel enter barricaded area
7. Start Machining	7.1 Rotating Machine Parts may cause injury	7.1.1 Insure all guards are in place 7.1.2 Wear proper PPE 7.1.3 Insure no loose materials are around machines 7.1.4 Insure engine is properly lubricated before start-up 7.1.5 Insure no loose clothing during machining 7.1.6 Insure Machine turning freely prior to start-up No interference on cutting components 7.1.7 Insure no long hair which may be caught in moving machine parts
8. Machining Operation	8.1 Injury from hot chips	8.1.1 Wear proper PPE 8.1.2 Insure chips are falling in a non-hazardous location 8.1.3 Use proper lubrication on cutting tools
	8.2 Injury from moving parts	8.2.1 Insure parts cut off are properly supported to avoid dropping parts which are cut loose
	8.3 Exposure to fire hazard	8.3.1 Insure no flammable materials are present which might be ignited by hot chips
	8.4 Explosions	8.4.1 Insure the object being cut on is not under pressure 8.4.2 Insure atmosphere is not oxygen - enriched or other flammable gasses are present
9. Secure Equipment for Move Out	9.1 Same hazards as steps 2-6	9.1.1 Follow proper procedures for shutdown of machines, equipment and tools