

Company Name:	Equipment/Job Identification: Hydrate Helper Type of Equipment: Make: Model: Year: Use:
Mine Name:	
Date of Analysis: 01/31/06 through 02/02/06	

Prerequisites

All MSHA Part 46 requirements must be met including Task Training
Company policy requirements and SOPs
Task training records must be on file prior to performing any job duty

Duty 1: Beginning-of-Shift

Learner will explain the importance of the beginning-of-shift activities. The learner will explain each job step, why it is conducted, any associated risk, and how to implement appropriate controls. Beginning-of-shift activities include the following steps:

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
		1=Important 2=Very Important 3=Critical		
Conduct a Self Assessment		1		
Clock In		1		
Drive to the change/lunch room		1		
Park car		1		
Proceed to change room		1		
<ul style="list-style-type: none"> Change clothes (if needed) 				
Collect and put on PPE	Failure to put on PPE may cause serious injury; company policy	2		
<ul style="list-style-type: none"> Collect Hard Hat 				
<ul style="list-style-type: none"> Collect Safety Glasses 				
<ul style="list-style-type: none"> Collect Safety shoes 				
<ul style="list-style-type: none"> Collect Ear plugs 				
<ul style="list-style-type: none"> Collect Gloves 				
Proceed to the pump floor		1		
Start visual inspection of the plant	Failure to catching a machinery defect or a problem may reduce equipment	2		

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
	efficiency; may not find slip and trip and other hazards which may cause injuries			
<ul style="list-style-type: none"> • Look at housekeeping <ul style="list-style-type: none"> ○ Look for slip and trip hazards 				Accumulation of lime
<ul style="list-style-type: none"> • Listen for unusual noises 				
<ul style="list-style-type: none"> • Check for guards that are not in place 				
<ul style="list-style-type: none"> • Ensure that machinery is properly operating 				
<ul style="list-style-type: none"> • Check for unusual smells 				
<ul style="list-style-type: none"> • Check trip hazards 				
<ul style="list-style-type: none"> • Check hand rails 				
<ul style="list-style-type: none"> • Check stairs 				
<ul style="list-style-type: none"> • Check Walkways 				
<ul style="list-style-type: none"> • Notify the maintenance supervisor immediately if any defective conditions are found. 				
<ul style="list-style-type: none"> • Write up a work order on any other defective conditions that are found 				
Attend briefing with the hydrate helper leaving	Failure to may cause a loss of production because the oncoming helper would not know what is going on with the plant	2		
<ul style="list-style-type: none"> • Receive status of the trucks and railcars loaded 				
<ul style="list-style-type: none"> • Discuss the ongoing maintenance 				
Talk to the operator	May reduce the quality control of the product shipment, and reduce efficiency	2		
<ul style="list-style-type: none"> • Discuss silo levels 				
<ul style="list-style-type: none"> • Discuss moisture levels 				<.7% moisture loads in trucks. >.7% moisture bagged
<ul style="list-style-type: none"> • Ensure that he don't need anything 				

Duty 2: Load Bulk Trucks

Learner will demonstrate how to safely and efficiently load bulk trucks. Learner will also explain the job duties, why they are conducted, any associated risk, and how to implement appropriate controls. Safe and efficient performance of loading bulk trucks includes the following steps:

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
		1=Important 2=Very Important 3=Critical		
Continue Visual Inspection	Failure to catching a machinery defect or a problem may reduce equipment efficiency; may not find slip and trip and other hazards which may cause injuries	2		This inspection is a continuation of the items listed in the "Beginning of Shift" duty
Coordinate the loading of the trucks with the bagging operation	If there is no coordination it may reduce production because the baggers need to be shut down to spot the truck	2		
<ul style="list-style-type: none"> Assist the baggers with the crossover belt if needed 				
Communicate with truck driver to ensure that they know that you will be on the truck	Failure to do this may cause the helper to fall from the truck causing a disabling injury or death	3		
Ensure that the truck driver has his brakes set and the pressure is released from inside trailer	Could cause burns from steam; the tank pressure could knock the helper off the truck; the truck could move causing injury or death	3		
Obtain and put on PPE	Failure to wear the proper PPE could cause serious injury or death	3		
<ul style="list-style-type: none"> Body harness 				
<ul style="list-style-type: none"> Dust Mask 				
<ul style="list-style-type: none"> Goggles 				
Inspect the ladder for slip, trip and fall hazards and/or broken rungs	Failure may cause a disabling injury or death because of falling from the ladder because of slipping from muddy or broken rung	3		

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
Climb ladder to load out shack	Failure to climb the ladder would result in the truck not being loaded; loss of production; may cause the operator to shut down the pump because the silos are full	3		
Attach the retractable lanyard to the harness	Failure could cause injury in case of a fall because truck movement; slips because of wet conditions	3		
Position the truck where the spout is between the center loading holes		1		To ensure that all lids can be accessed without adjusting truck position
Lower the ramp	Failure to lower ramp would prevent the helper from accessing the truck for loading causing a loss of production	3		
Walk out onto the truck	Failure prevents the helper from accessing the truck for loading causing a loss of production	3		
Open the lids	Failure to open the lids would prevent the helper from loading the truck causing a loss of production; not opening the lids correctly may cause a disabling injury because the lids will fly up very quickly	3		
<ul style="list-style-type: none"> Open latches starting near the hinge 				
<ul style="list-style-type: none"> Release the latch with the safety catch last 				In case there is pressure inside the tank which may cause the lid to "fly up"
Return to the ramp	Failure to do this step would halt production because the loading process can't begin	3		
Proceed to load out shack	Failure to do this step would halt production because the loading process can't begin	3		
Reposition the truck	Failure to do this step would halt production because the loading process can't begin	3		Use directional lights; if lights are not working use hand signals.
Lower the spout into the first loading hole	Failure would cause loss of production or cause severe clean up problems	3		May have to return to the ramp to ensure that the spout goes in the

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
	because of dumping lime on the ground			loading hole
Remove the retractable lanyard from the harness		1		
Turn on the vibrator on loading spout	Failure may cause the spout to plug causing loss of production and material	3		
Turn on the load out screw	Failure would prevent the loading process	3		
Turn on the load out elevator	Failure would prevent the loading process	3		
Ensure that the elevator is operating	Failure may delay loading time, cause more cleanup, cause the system to plug and backup reducing production	2		
<ul style="list-style-type: none"> Look for the turning shaft at the bottom of the elevator 				
Turn on the #2 silo discharge screw	Failure would prevent the loading process	3		
Ensure that the screw is running	Failure may delay loading time, cause more cleanup reducing production	2		
<ul style="list-style-type: none"> Look for the turning shaft at the end of the screw 				
<ul style="list-style-type: none"> Notify the operator if the screw is not turning 				
Fill hole to the proper level	Failure to properly load the truck may result in bring the truck back to add more material causing a reduction in production	2		Hole is full when a steady stream of dust is coming from the spout and the hole
Turn off the #2 silo discharge screw	Failure would cause the truck to overload causing cleanup problems, loss of product severely reducing production	3		
Turn off the elevator	Failure would cause the truck to overload causing cleanup problems, loss of product severely reducing production	3		
Turn off the load out screw	Failure would cause the truck to overload causing cleanup problems, loss of product severely reducing production	3		
Turn off the vibrator		1		
Raise the load out spout	Failure would cause equipment damage	3		

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
	to the spout and/or the truck			
Reposition the truck	Failure to do this step would halt production because the loading process can't continue	3		Use directional lights; if lights are not working use hand signals.
Listen for the air brakes on the truck to ensure that the brakes are set	Failure to ensure that the brakes are set may cause the helper to fall from the truck causing a disabling injury or death	3		
Obtain the sample can		1		In load out shack
Re-attach the retractable lanyard to the harness	Failure may result in a fall causing a disabling injury or death	3		
Return to the top of truck	Failure to do this step would halt production because the loading process can't continue	3		
Fill the sample can from the first load out hole	Failure to do this step would halt production because the samples would not be taken	3		Run the sample if needed for that truck Only run one sample from each truck
Close the first truck lid		1		Ensure that all the latches are properly secured
Follow the same loading process for the remaining holes	Failure to do this step would halt production because the loading process can't be completed	3		
Shut down loading operation after last hole	Failure would cause the truck to overload causing cleanup problems, loss of product severely reducing production	3		
<ul style="list-style-type: none"> • Shut down the silo discharge screw 				
<ul style="list-style-type: none"> • Allow system to run until cleared 				
<ul style="list-style-type: none"> • Shut down elevator 				
<ul style="list-style-type: none"> • Shut down the load-out screw 				
<ul style="list-style-type: none"> • Turn off the vibrator 				
<ul style="list-style-type: none"> • Raise the load out spout all the way up 				
Position the truck with the spout between the two center holes		1		
Ensure all lids and latches are closed	Failure to do this step wouldn't allow the truck to pressurize, could let moisture in contaminating the product	3		

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
Blow off the top of the truck using air lance	Failure may cause the product to blow off during transport causing visibility issues to the public highways	3		Company policy, it's required that the trucks are blown off after loading
Return to the load out shack	Failure to get off truck would cause the truck not be able to move severely reducing production	3		
Remove the retractable lanyard	Failure would prevent continuing the process	3		
Ensure that the ramp is raised up	Failure would cause equipment damage to the ramp and/or the truck	3		
Climb down the ladder to the ground	Failure would prevent continuing the process	3		
Remove the body harness and store in proper place		1		
Notify the truck driver that the loading process is over	Failure would prevent continuing the process	3		
Proceed to the rail scale check out shack	Failure would prevent continuing the process	3		
Fill out bill of lading	Failure would prevent continuing the process	3		
Give bill of lading to the truck driver	Failure would prevent continuing the process	3		

Duty 3: Load Train Cars

Learner will demonstrate how to safely and efficiently load train cars. The learner will also explain the job duties, why they are conducted, any associated risk, and how to implement appropriate controls. Safe and efficient performance of loading train cars includes the following steps:

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
		1=Important 2=Very Important 3=Critical		
Continue Visual Inspection	Failure to catching a machinery defect or a problem may reduce equipment efficiency; may not find slip and trip and other hazards which may cause injuries	2		This inspection is a continuation of the items listed in the "Beginning of Shift" duty
Coordinate the loading of the rail cars with the bagging operation	If there is no coordination it may reduce production because the baggers need to be shut down to spot the truck	2		
<ul style="list-style-type: none"> Assist the baggers with the crossover belt if needed 				
Check to ensure that the load out ramp and spout are in the fully raised position	Failure to do this step would cause damage to the ramp, spout, and rail car causing a halt in production	3		
Obtain the loader	Must be done to start the loading process	3		CAT 966
Conduct a pre-shift inspection of the loader	Failure to do this step may result in equipment damage and disciplinary action	3		Use the Pre-Op check sheet inside the loader. Company Policy
Climb inside loader	Must be done to start the loading process	3		
Put on seat belt	Failure to use seat belt may result in a disabling injury or death in case of accidents	3		Company Policy
Start up loader	Must be done to start the loading process	3		
Fill out the Pre-Op inspection check sheet	May result in disciplinary action if not done	3		Company Policy
Proceed to the rail cars	Must be done to start the loading process	3		
Drop bucket to the ground	Will help prevent the loader from moving	3		Company Policy

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
Set the brakes on the loader	To prevent unexpected movement of the loader which may cause sever injury or death	3		Company Policy
Ensure that the loader is in neutral	In case the brakes fail it would help prevent unexpected movement of the loader	3		Company Policy
Dismount the loader	Must be done to start the loading process	3		
Check for proper brake tension on the rail cars	Could cause rail car damage if the brakes are locked or cause the car to move unexpectedly causing injury or death	3		If more than one car, check the brake systems on all cars
<ul style="list-style-type: none"> Pull on brake chain system to ensure tightness 				
Check the knuckle of the car that you are going to hook to ensuring that it is open		1		
Check the knuckle on the loader to ensure that it is open		1		
Mount the loader	Must be done to start the loading process	3		
Put on seat belt	Failure to use seat belt may result in a disabling injury or death in case of accidents	3		Company Policy
Raise the bucket	Failure to raise the bucket may cause turning problems reducing equipment efficiency or may cause an injury	2		
Release park brake on the loader	May cause equipment damage	3		
Set the lock on the knuckle in the loader	Must be done to start the loading process, can't move the car unless the lock is engaged	3		
<ul style="list-style-type: none"> Push the switch next to the seat forward 				
Back up to the train car until the knuckle is engaged	Must be done to start the loading process	3		
Proceed to the load out station	Must be done to start the loading process	3		

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
		1=Important 2=Very Important 3=Critical		
Spot the car on the center hole using the alignment marks on the wall	Must be done to start the loading process	3		Gray for seven hole cars Orange for six hole cars
<ul style="list-style-type: none"> Align your right shoulder with the painted marks on the wall 				
Unhook the rail car from the loader		1		
<ul style="list-style-type: none"> Push switch next to seat to the rear of the loader 				
Park the loader in a safe location away from the dust		1		Use parking procedure
Obtain paperwork and seals	Necessary to accomplish the job, the paperwork needs to be obtained and filled out	3		Paperwork located in lock up
Start train car profile paperwork	Necessary to accomplish the job, the paperwork needs to be obtained and filled out	3		
<ul style="list-style-type: none"> Record car number, seal numbers, and empty car weight on the profile 				Car weight an number located on the car
Obtain and put on PPE	Failure may cause injury or death airborne dust or falling from rail car causing a disabling injury or death	3		Body harness, Dust Mask, Goggles
Inspect the ladder for slip, trip and fall hazards and/or broken rungs	Failure may cause a disabling injury or death because of falling from the ladder because of slipping from muddy or broken rung	3		
Climb ladder to load out shack	Failure to climb the ladder would result in the rail car not being loaded; loss of production; may cause the operator to shut down the pump because the silos are full	3		
Attach retractable lanyard to the harness	Failure could cause injury in case of a fall because rail car movement; slips because of wet conditions	3		
Lower the ramp	Failure to lower ramp would prevent the helper from accessing the rail car for loading causing a loss of production	3		

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
Walk out onto the rail car	Failure prevents the helper from accessing the rail car for loading causing a loss of production	3		
Open lids 1-4	Failure to open the lids would prevent the helper from loading the rail car causing a loss of production; not opening the lids correctly may cause a disabling injury because the lids will fly up very quickly	3		
<ul style="list-style-type: none"> Open latches starting near the hinge 				
<ul style="list-style-type: none"> Release the latch with the safety catch last 				In case there is pressure inside the tank which may cause the lid to “fly up”
Return to the ramp	Must be done to continue the loading process	3		
Proceed to load out shack	Must be done to continue the loading process	3		
Lower the spout into the first loading hole	Failure would cause loss of production or cause severe clean up problems because of dumping lime on the ground	3		May have to return to the ramp to ensure that the spout goes in the loading hole
Remove the lanyard from the harness		1		
Turn on the vibrator on loading spout	Failure may cause the spout to plug causing loss of production and material	3		To ensure that the spout don't plug
Turn on the load out screw	Failure would prevent the loading process	3		
Turn on the load out elevator	Failure would prevent the loading process	3		
Ensure that the elevator is operating	Failure may delay loading time, cause more cleanup, cause the system to plug and backup reducing production	2		
<ul style="list-style-type: none"> Look for the turning shaft at the bottom of the elevator 				

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
Turn on the #2 silo discharge screw	Failure would prevent the loading process	3		
Ensure that the screw is running	Failure may delay loading time, cause more cleanup reducing production	2		
<ul style="list-style-type: none"> Look for the turning shaft at the end of the screw 				
<ul style="list-style-type: none"> Notify the operator if the screw is not turning 				
Fill hole to the proper level	Failure to properly load the rail car may result in bringing the rail car back to add more material causing a reduction in production	2		Hole is full when a steady stream of dust is coming from the spout and the hole
Turn off the #2 silo discharge screw	Failure would cause the rail car to overload causing cleanup problems, loss of product severely reducing production	3		
Turn off the elevator	Failure would cause the rail car to overload causing cleanup problems, loss of product severely reducing production	3		
Turn off the load out screw	Failure would cause the rail car to overload causing cleanup problems, loss of product severely reducing production	3		
Turn off the vibrator		1		
Raise the load out spout	Failure would cause equipment damage to the spout and/or the rail car	3		
Raise the ramp in the fully raised position	Failure would cause equipment damage to the ramp and/or the rail car	3		
Climb down ladder to the ground	Failure would prevent continuing the process	3		
Obtain the loader	Must be done to continue the loading process	3		
Connect the loader to the rail cars using the connection procedures	Must be done to continue the loading process	3		

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
		1=Important 2=Very Important 3=Critical		
Reposition rail cars to the next paint marks	Must be done to continue the loading process	3		
Leave the loader attached to the rail cars and repeat loading process for holes 2-4	Failure may reduce production spending time hooking and unhooking the loader from the rail cars	2		Leaving the loader attached speeds up the loading process
Obtain three sample cans	Must be done to continue the loading process	3		In load out shack
Re-attach the retractable lanyard to the harness	Failure could cause injury in case of a fall because rail car movement; slips because of wet conditions	3		
Return to the top of the rail car	Must be done to continue the loading process	3		
Fill the sample can from the first and fourth holes	This step must be done to complete the loading process	3		Use one can for each hole
Close lids and attach seals on holes 1-4 after hole #4 is filled	Failure to do this step wouldn't allow the rail car to pressurize, could let moisture in contaminating the product; rail cars can't be transported without the seals	3		Attaching seals are Company Policy
Clean off the top of the rail car using compressed air and air lance	Failure to do this step causes a loss of production because the car would have to be repositioned	3		Only clean the area around the loaded holes 1-4
Follow the same loading process for the remaining holes	Must be done to continue the loading process	3		
Shut down loading operation after last hole	Failure would cause the rail car to overload causing cleanup problems, loss of product severely reducing production	3		
<ul style="list-style-type: none"> Shut down the silo discharge screw 				
<ul style="list-style-type: none"> Allow system to run until cleared 				
<ul style="list-style-type: none"> Shut down elevator 				
<ul style="list-style-type: none"> Shut down the load-out screw 				
<ul style="list-style-type: none"> Turn off the vibrator 				
<ul style="list-style-type: none"> Raise the load out spout up 				
Take a sample from the last load out hole	Must be done to complete the loading process	3		A total of three sample per car
Close and attach seals to the remaining lids	Must be done to complete the loading process	3		

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
Ensure that all latches are secured	Failure to do this step wouldn't allow the rail car to pressurize, could let moisture in contaminating the product; rail cars can't be transported without the seals	3		Company Policy
Clean off the top of the car using air lance	Failure may cause the product to blow off during transport	3		Company Policy; failure may cause disciplinary action; railroad policy
Return to load out shack	Must be done to complete the loading process	3		
Remove the retractable lanyard	Must be done to complete the loading process	3		
Raise ramp all the way up	Failure to do this step would cause damage to the ramp and rail car causing a halt in production	3		
Climb down the ladder to the ground	Must be done to complete the loading process	3		
Remove the body harness and store in proper place		1		
Check the position of the track switch	Failure may result in equipment damage and loss of production	3		
<ul style="list-style-type: none"> Ensure that the rail switch flag is cross ways with the track 				
Return to the loader	Must be done to complete the loading process	3		
Move the rail car through the switch	Must be done to complete the loading process	3		Use first gear
Stop and exit the loader	Must be done to complete the loading process	3		Ensure that proper parking procedures are followed
Turn the rail switch back to where the flag is parallel to the rails	Must be done to complete the loading process; loss of production	3		
Return to loader	Must be done to complete the loading process	3		
Unhook the loader from the rail car using switch inside loader	Must be done to complete the loading process	3		
Move the loader to the other end of the car	Must be done to complete the loading process	3		
Couple the loader to the car	Must be done to complete the loading process	3		

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
Pull through the switch and onto the scale	Must be done to complete the loading process	3		
Record the gross weight of the rail car on the profile report	Must be done to complete the loading process	3		Note the weight on the digital scale read out monitor
Exit the loader	Must be done to complete the loading process	3		
Inspect the area around the rail cars and loader to ensure all persons are clear	Failure to inspect the area may cause severe injury or death to persons or property damage	3		
Open any closed couplers on loaded train cars that may be present on the track	Failure could result in property damage	3		Couplers are opened by lifting the bar on the end of the rail car
Return to the loader	Must be done to complete the loading process	3		
Sound the loader horn before moving	Failure could result in property damage or death due to collision	3		
Back the car in the reverse direction off of the scale	Must be done to complete the loading process	3		
Couple the car to any additional cars and move past the switch at least 2 car lengths to allow the next car to clear	Must be done to complete the loading process	3		If there is more than on car the brakes may have to be released enough to move the loaded cars forward
Stop and park the loader using the proper procedures	Failure to use proper procedures may cause serious injury, death and/or property damage	3		
Exit the loader	Must be done to complete the loading process	3		
Ensure that the brake is fully set on at least one rail car	Failure to use proper procedures may cause serious injury, death and/or property damage	3		
Get in the loader	Must be done to complete the loading process	3		
Unhook the car from the loader using the proper procedure	Must be done to complete the loading process	3		
Park loader in designated area	Failure to park in a safe designated area may cause the train to hit loader causing equipment damage	3		Company Policy
Obtain the three full sample cans and	Must be done to complete the loading	3		

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
proceed to the lab	process			
Run all required tests	Failure could result in disciplinary action because the train car can't be released until the samples are completed	3		Moisture %, Viscosity, Pack set. Company Policy
Record all results on the profile report and lab log	Failure could result in disciplinary action because the train car can't be released until the samples are completed	3		Company Policy
Ensure that the profile is complete		1		
Take profile report to the pump control room		1		

Duty 4: Fill Tanner Gas

Learner will demonstrate how to safely and efficiently perform the procedures to fill tanner gas. The learner will also explain each job step, why they are conducted, any associated risk, and how to implement appropriate controls. Safe and efficient performance of the fill tanner gas activities includes the following steps:

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
		1=Important 2=Very Important 3=Critical		
Continue Visual Inspection	Failure to catch machinery defects or a problem may reduce equipment efficiency; may not find slip and trip and other hazards which may cause injuries	2		This inspection is a continuation of the items listed in the "Beginning of Shift" duty
Obtain and put on PPE	Failure to wear face shield or goggles could allow the gas to splash up causing personal serious injury	3		Face shield or goggles Rubber Gloves
Ensure that the correct container is used	May cause damage to equipment or personal injury because of contamination	2		Blue 5 gallon bucket stored beneath the tank
Proceed to the oil house (if needed)	Failure to do this step could result in an air loss to the plant which would cause production to stop	3		
Locate the 55 gallon drum of methanol	Failure to do this step could result in an air loss to the plant which would cause production to stop	3		
Ensure that all caps are closed and tight	Failure may cause a loss of product, serious personal injury due to splashing of methanol	3		
Place drum on the dolly	Failure to use dolly can result in serious personal injury due to strain	3		
Lay drum on its side with the pour spout down	Failure to do this step would result in the loss of production because the methanol would not come out properly	3		
Place the 5 gallon bucket under the spout	May cause the methanol to pour out on the ground	3		
Open the small cap on the top of the drum	Failure would cause insufficient air inside the drum causing the methanol to burp which may splashing on persons causing serious personal injury; loss of product	3		

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
Remove the lid from the 5 gallon bucket	Failure would cause loss of production, can't fill bucket properly; loss of product	3		
Open the spout on the drum slowly	Failure may cause the product to come out too fast causing splashing and loss of product; serious personal injury due to chemical exposure	3		Open to the correct flow rate to eliminate splashing
Close spout when the bucket is full	Failure may cause the product to continue to come out causing splashing and loss of product; serious personal injury due to chemical exposure	3		
Put lid back on 5 gallon bucket	May splash when carrying the bucket causing serious personal injury due to chemical exposure	3		
Put small lid back on air flow hole and hand tighten	Failure may cause the methanol to splash causing chemical exposure and serious personal injury	3		
Stand the drum back to the vertical position	Failure may allow the methanol to leak out of the cap causing environmental problems; may cause chemical exposure	3		
Proceed back to the tanner gas tank with the bucket	Failure would reduce production; needs to be done to complete the job	3		
Open air lines to the main pipe	Failure wouldn't allow the air to flow to the rest plant causing loss of production	3		
Close both valves to the tanner gas tank	Failure to close valves would leave air in the tank which could be released under pressure causing personal injury	3		Up to 120 lbs. air pressure
Remove the plug on the fill pipe	Failure would not allow the product to be poured into the tank; loss of production	3		
Open the valve on the fill pipe (slowly)	Failure could release too much air containing methanol to blow out in your face causing personal injury; chemical exposure	3		
Dump the methanol into the fill pipe until full	Failure would reduce production; needs to be done to complete the job	3		
Close valve on the fill pipe	Failure could release too much air containing methanol to blow out in your face causing personal injury; chemical exposure	3		

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
Replace the plug in the end of the fill pipe	Failure may cause chemical exposure if fill pipe valve becomes defective	3		
Open both valves on the bypass pipe	Failure to open both valves would prevent air from passing through the tank causing loss of production	3		
Close the valve to the main line	Failure to open the valve would prevent air from passing through the tank causing loss of production	3		
Repeat steps to refill 5 gallon bucket if needed		1		5 gallon bucket should remain full to be used if needed
Replace 5 gallon bucket under tanner tank	Failure to leave bucket under the tank would cause loss of time which would affect production	2		

Duty 5: Run Samples

Learner will demonstrate how to safely and efficiently run samples. The learner will also explain the job steps, why they are conducted, any associated risk, and how to implement appropriate controls. Safe and efficient performance of running samples includes the following steps:

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
		1=Important 2=Very Important 3=Critical		
Continue Visual Inspection	Failure to catch machinery defects or a problem may reduce equipment efficiency; may not find slip and trip and other hazards which may cause injuries	2		This inspection is a continuation of the items listed in the "Beginning of Shift" duty
Follow the written procedure for determining the moisture (%) content	Failure to follow the procedure may alter the sample results causing poor quality control	3		The written procedure is in the lab There will be one sample per truck and three samples per rail car
Follow the written procedure for determining the viscosity of the sample	Failure to follow the procedure may alter the sample results causing poor quality control	3		The written procedure is in the lab There will be one sample per truck and three samples per rail car
Notify operator if viscosity is less than 110,000	Failure could result in a poor quality of the product; could be loss of production; impact on the plant	3		
Communicate with operator on additive feed dial settings to be used	Failure could result in a poor quality of the product; could be loss of production; impact on the plant	3		
Begin application of additive when notified by operator	Failure could result in a poor quality of the product; could be loss of production	3		
<ul style="list-style-type: none"> • Proceed to Devils Hole 				
<ul style="list-style-type: none"> • Check feed pipe and clear if necessary 				
<ul style="list-style-type: none"> • Set dial to appropriate settings 				
<ul style="list-style-type: none"> • Turn toggle switch to on position 				
<ul style="list-style-type: none"> • Proceed to additive hopper 				
<ul style="list-style-type: none"> • Place a bag of additive on the grate above the hopper 				
<ul style="list-style-type: none"> • Break the bag open and dump into hopper 				
<ul style="list-style-type: none"> • Repeat adding additive as needed 				Additional additive is in the warehouse

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
<ul style="list-style-type: none"> Place empty bags into the dumpster next to the bagger shack 				
Follow the written procedure for the Pack Set test	Failure to follow the procedure may alter the sample results causing poor quality control	3		The written procedure is on the bottom and back of the train car profile sheet There will be one sample per truck and three samples per rail car
Record all test results on the lab sheet report	Failure could result in poor quality control resulting in loss of production	3		Company Policy; May cause disciplinary action if not done
Combine all remaining samples from each rail car into one bucket and leave in the lab	Failure could result in further tests not being able to be completed which could cause a loss of production	3		Company Policy; May cause disciplinary action if not done
<ul style="list-style-type: none"> Tag samples with car number, date and initial 				

Duty 6: Dump the Reject Hopper

Learner will demonstrate how to safely and efficiently dump the reject hopper. The learner will also explain the job steps, why they are conducted, any associated risk, and how to implement appropriate controls. Safe and efficient performance dumping the reject hopper includes the following steps:

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
		1=Important 2=Very Important 3=Critical		
Continue Visual Inspection	Failure to catch machinery defects or a problem may reduce equipment efficiency; may not find slip and trip and other hazards which may cause injuries	2		This inspection is a continuation of the items listed in the "Beginning of Shift" duty
Close the air gate above the hopper	Failure would allow the product to dump on the ground causing severe cleanup issue; equipment damage; loss of production	3		
Obtain the Forklift	Failure could cause a loss of production; forklift is used to complete the job;	3		
Conduct a pre-operational inspection on the forklift	Failure could cause equipment damage or a safety hazard could go un-noticed causing serious personal injury	3		Company Policy; possible disciplinary action
Fill out the pre-op form	Failure could result in the mechanics not receiving the reports on a possible defect	3		Company Policy; possible disciplinary action
Get on the forklift	Failure would prevent the job from being completed	3		
Put on seat belt	Failure may result in a disabling injury or death in case of an accident	3		Company Policy; possible disciplinary action
Start forklift	Failure would prevent the job from being completed	3		
Raise forks	Failure would prevent the job from being completed	3		4 to 6 inches
Release parking brake	Failure may cause equipment damage; loss of production	3		
Proceed to hopper	Failure would prevent the job from being completed	3		
Lift hopper onto forks	Failure would prevent the job from being completed	3		

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
Carry hopper to dump site	Failure would prevent the job from being completed	3		Watch for screws, elevators, persons, beams, pipes, etc.
Stop forklift and set park brake at dump site	Failure may result in serious personal injury due to the unexpected movement of the forklift	3		
Raise hopper about three feet from the ground	Failure could result in the hopper not properly dumping and/or cause serious personal injury if the hopper is raised too high	3		
Tilt the mast forward	Failure could result in the hopper not dumping properly or cause serious personal injury because of trying to push hopper to dump	3		
Dismount forklift	Failure would prevent the job from being completed	3		
Raise the dump latch on the hopper	Failure could result in the hopper not dumping properly	3		
Get back on the forklift	Failure would prevent the job from being completed	3		
Raise the load to dump the hopper	Failure would prevent the job from being completed	3		
Tilt the mast back to vertical	Failure would result in the hopper not returning to the closed position	3		
Lower the hopper to the ground	Failure would prevent the job from being completed	3		
Dismount forklift	Failure would prevent the job from being completed	3		
Check latch to ensure hopper properly secured	Failure could result in property damage because the hopper might roll into the dump position unexpectedly	3		
Remount the forklift	Failure would prevent the job from being completed	3		
Raise load four to six inches off the ground	Failure could result in property damage during transport; if raised too high it would cause a reduction in visibility; serious personal injury to persons	3		
Release the park brake	Failure would cause equipment damage	3		

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
Drive hopper back to dirt devil	Failure would prevent the job from being completed	3		
Set hopper in place	Failure would prevent the job from being completed	3		
Return forklift to designated area	Failure could result in property damage because the forklift may be covered with lime	3		Company Policy
Set park brake and lower forks	Failure could result in unexpected movement causing serious personal injury or death; forks could cause a tripping hazard	3		Company Policy
Shut off forklift	Failure could cause the forklift to run out of fuel causing a loss of production because it would have to be refueled	2		
Proceed to and open air gate	Failure could cause equipment damage and loss of production because it would cause the system to back up	3		Only open gate half way

Duty 7: General clean up

Learner will demonstrate how to safely and efficiently perform general clean up activities. The learner will also explain the job steps, why they are conducted, any associated risk, and how to implement appropriate controls. Safe and efficient performance of general clean up activities includes the following steps:

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
		1=Important 2=Very Important 3=Critical		
Continue Visual Inspection	Failure to catch machinery defects or a problem may reduce equipment efficiency; may not find slip and trip and other hazards which may cause injuries	2		This inspection is a continuation of the items listed in the "Beginning of Shift" duty
Obtain and put on PPE	Failure to put on PPE may cause serious injury; company policy	3		Gloves, Glasses, Dust Mask
Inspect the condition of hand tools	Failure may cause personal injury because of a defective tool	2		Wheelbarrow, Shovel, Brooms. If defects are found turn them into a Supervisor for replacement
Obtain Bobcat if needed		1		
<ul style="list-style-type: none"> Inspect before use Fill out pre-operational check sheet 				
Tape off lower level before sweeping or blowing off upper level	Failure may cause personal injury to persons in or around the plant because of flying/falling debris	3		
Clean up the Hydrate area	Failure could result in personal injury because of slip, trip and fall hazards	2		Part of the job description
<ul style="list-style-type: none"> Clean up main floor Clean up Pump floor Clean off Top of Silos Clean off Top of Separators Clean up Devils Hole 				The pump must be shut off before cleanup is done in the Devils hole (Clean up with two persons)
<ul style="list-style-type: none"> Clean up Below the Hydrator Clean up around the load out Clean up around train tracks 				
Put away all tools in designated areas when finished	Failure could result in personal injury because of slip, trip and fall hazards;	2		

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
		1=Important 2=Very Important 3=Critical		
	loss of production if the tools can't be found			

Duty 8: General Maintenance

Learner will demonstrate how to safely and efficiently perform general maintenance activities. The learner will also explain the job duties, why they are conducted, any associated risk, and how to implement appropriate controls. Safe and efficient performance of the general maintenance activities includes the following steps:

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
		1=Important 2=Very Important 3=Critical		
Continue Visual Inspection	Failure to catch machinery defects or a problem may reduce equipment efficiency; may not find slip and trip and other hazards which may cause injuries	2		This inspection is a continuation of the items listed in the "Beginning of Shift" duty
Obtain tools	Can't complete the job without the proper tools	3		
<ul style="list-style-type: none"> Get grease gun 				
<ul style="list-style-type: none"> Get rags 				
<ul style="list-style-type: none"> Get screw driver 				
<ul style="list-style-type: none"> Get extra tube of grease 				
Greasing	Failure could result in the equipment efficiency or operational life because of bearing failure	3		
<ul style="list-style-type: none"> Follow lubrication schedule as posted in the control room 				
Check condition of the V-belts	Failure to detect worn or defective belts may result in additional equipment down time	2		If worn or in poor condition, write a work order
Replace broken or missing V-belts	Failure to replace the V-Belts could cause a loss of production. Failure to follow the proper procedure could cause serious personal injury or death	3		
<ul style="list-style-type: none"> Notify the operator 				
<ul style="list-style-type: none"> Lock and tag out motor after the operator has shut down motor circuit 	All persons working on equipment must lock and tag out			Follow company lock and tag out policy
<ul style="list-style-type: none"> Obtain tools 				Crescent wrench, 9/16" wrench, screw driver, and hammer
<ul style="list-style-type: none"> Remove the guard 				
<ul style="list-style-type: none"> Check the V-belt for the size 				

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
		1=Important 2=Very Important 3=Critical		
<ul style="list-style-type: none"> Obtain the replacement V-belt 				Belt room
<ul style="list-style-type: none"> Fill out inventory sheet in belt room (quantity, size, and what you put it on) 				
<ul style="list-style-type: none"> Install the new V-belt 				
<ul style="list-style-type: none"> Loosen the torque arm or adjust motor to shorten belt span 				
<ul style="list-style-type: none"> Remove any existing belts that may be on pulley 				
<ul style="list-style-type: none"> Install the new belts over the pulley 				
<ul style="list-style-type: none"> Adjust the torque arm or motor to the proper tension 				
<ul style="list-style-type: none"> Tighten the torque and /or motor locking nuts 				
<ul style="list-style-type: none"> Install guard 				Company policy states that nothing is started without the guard properly in place
<ul style="list-style-type: none"> Remove lock an tag 				
<ul style="list-style-type: none"> Put tools away 				
<ul style="list-style-type: none"> Energize motor 				
Check top and bottom elevator bearings	Failure to detect defective bearing could result in extra down time and/or equipment damage	2		Ensure that the balls are in the bearing, shaft is centered within the two bearings, seals are in place, shaft is not spinning inside the bearing, and ensure that the bearing is getting grease (check on a daily basis)
<ul style="list-style-type: none"> Check Load out elevator 				
<ul style="list-style-type: none"> Check Silo feed elevator 				
<ul style="list-style-type: none"> Check reject elevator 				
<ul style="list-style-type: none"> Check collector elevator 				
<ul style="list-style-type: none"> Check Surge bin elevator 				
Check to ensure the operation of the screw conveyors (Tail Bearings)	Failure to detect defective bearing could result in extra down time and/or equipment damage	2		Ensure that the balls are in the bearing, seals are in place, ensure that the shaft is not spinning inside

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
				the bearing, ensure that the bearing is getting grease (should be check on a daily basis)
• Check the surge bin feed screw				
• Check the surge bin discharge screw				
• Check the #1 and #2 clean out screws				
• Check the collector discharge screw				
• Check the #1 separator feed screw				
• Check the #1 separator product screw				
• Check the #1 separator reject screw				
• Check the #2 separator feed screw				
• Check the #2 separator product screw				
• Check the #2 separator reject screw				
• Check the micro pulverizing screw (dirt devil)				
• Check the silo feed screw				
Check top separator Bearings	Failure to detect defective bearing could result in extra down time and/or equipment damage	2		Ensure that the balls are in the bearing, seals are in place, ensure that the shaft is not spinning inside the bearing, ensure that the bearing is getting grease, remove lime build-up if necessary (check on a daily basis)
• Check #1 separator bearing				
• Check #2 separator bearing				

Duty 9: End-Of-Shift

Learner will demonstrate how to safely and efficiently perform end-of shift activities. The learner will also explain the job steps, why they are conducted, any associated risk, and how to implement appropriate controls. Safe and efficient performance of the end-of-activities includes the following steps:

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
		1=Important 2=Very Important 3=Critical		
Ensure that the reject hopper is empty	Failure would result in down time because the system will plug up	2		Follow the dumping of reject hopper job steps. To be done within ½ hour of the end of the shift
Ensure that samples have been run	Failure would cause a problem with quality control, extra down time, loss of production.	3		If samples have not been run advise incoming hydrate helper. If not done it may be grounds for disciplinary action
Ensure that all reports and paperwork have been completed	Failure would cause a problem with quality control, extra down time, loss of production.	3		
<ul style="list-style-type: none"> Railcar profile report 				
<ul style="list-style-type: none"> Pre-Op inspection report 				
<ul style="list-style-type: none"> Any work orders 				
<ul style="list-style-type: none"> Tool orders list 				
<ul style="list-style-type: none"> Parts orders 				
Wait for proper relief	Failure to wait for relief may cause a loss of production because your not allowed to work alone	3		
Brief incoming hydrate helper	Failure may result in confusion in what needs to be or has been accomplished; loss of production	2		
<ul style="list-style-type: none"> Discuss what train cars are done or half done 				
<ul style="list-style-type: none"> Advise of trucks loaded 				
<ul style="list-style-type: none"> Advise of any break downs or maintenance issues 				
<ul style="list-style-type: none"> Advise of the condition of the lime 				
<ul style="list-style-type: none"> Discuss any other potential problems 				

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
		1=Important 2=Very Important 3=Critical		
Return to lunchroom		1		
Change clothes		1		
Clock out		1		