

P3 PRODUCTION CONFINED SPACE LOG

MACHINE NUMBER SPACE DESCRIPTION	SPACE DESIGNATION	HAZARDS	REQUIRED ENTRY EQUIPMENT	FREQUENCY OF ENTRY
		ACCEPTABLE ENTRY PROCEDURES		
#10007042 SOUTH	PERMIT REQUIRED	Dusty atmosphere. Engulfment in contents (sand). Fall hazard greater than 4 feet. Historically low level carbon monoxide during hot work.	1. Multi gas air monitor. 2. Body harness attached to a mechanical retrieval system. 3. Portable ladder for south silo.	AS NEEDED FOR MAINTENANCE APPROX. QUARTERLY
#10007043 CENTER				
#10007044 NORTH CORE SAND HOLDING SILO		1. Block inflow lines. 2. Empty contents of silo. 3. Air monitoring must be within acceptable limits.		
#10006908 #10 OVEN #10006978 #20 OVEN #10006962 #30 OVEN CORE OVENS	NON PERMIT	Heat Mechanical moving belt. 1. Allow ovens to cool prior to entry (approx. 2 hours minimum). 2. Lockout belts and related equipment. 3. Open all doors and hatches.	HOT WORK REQUIRES VENTILATION PROCEDURE - CONTINUOUS AIR FLOW AND AIR MONITORING.	DAILY
#10007046 BUCKET ELEVATOR PIT (Coreroom Delivery Garage)	NON PERMIT	Mechanical moving bucket elevator. 1. Lockout related equipment. 2. Block sand feed chute.	HOT WORK REQUIRES VENTILATION PROCEDURE - CONTINUOUS AIR FLOW AND AIR MONITORING.	WEEKLY
#10012492 WATER MAIN PIT FIRE VALVE CONTROL out side of wwt bldg.	PERMIT REQUIRED	Possible toxic atmosphere. Fall hazard greater than 4 feet. 1. External blocks to prevent fall into space. 2. Air monitoring must be within acceptable limits.	1. Multi gas air monitor. 2. Body harness attached to a mechanical retrieval line. 3. External warning barricade.	WEEKLY VISUAL CHECK WITHOUT ENTRY AS NEEDED ENTRY FOR MAINTENANCE OF PUMP ANNUAL ENTRY BY CONTRACTOR
#10007206 #10007207 #10007208 #10007209 #10007210 #10007211 #10007212 #1-7 DISA DISA SAND HOPPER	PERMIT REQUIRED	Mechanical movement of bottom belt. Engulfment in contents. Fall hazard greater than 4 feet. Dusty atmosphere. 1. Empty contents of hopper. 2. Block inflow of sand into hopper. 3. Lockout related equipment, belts. 4. Air monitoring must be within acceptable limits.	1. Multi gas air monitor. 2. Body harness attached to a mechanical retrieval line. 3. Portable ladder.	AS NEEDED FOR MAINTENANCE

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#10007206 #10007207 #10007208 #10007209 #10007210 #10007211 #10007212 #1-7 DISA DISA SAND HOPPER EMPTY- NON PRODUCTION ENTRY	NON PERMIT VENTILATION PROCEDURE THIS PROCEDURE MAY BE USED ONLY IF THERE IS NO PRODUCTION & THE SYSTEM & HOPPER ARE EMPTY	Mechanical movement of bottom belt. Fall hazard greater than 4 feet. Toxic atmosphere - previous monitoring has shown low level CO in hoppers during non-production periods (0-8 ppm of CO).	1. Multi gas air monitor. 2. Portable blower. 3. Portable ladder. 4. Body harness attached to a mechanical retrieval line.	
		VENTILATION PROCEDURE 1. Lockout related equipment, bottom belt, & inflow sand belt. 2. Air monitoring must be acceptable prior to and throughout entry period. 3. Continuous ventilation is required, possibly with the use of a portable blower.		
#10007310 #10007313 #10007316 #10007319 #10007324 #10007332 #10007335 CASTING COOLERS #1-7	NON PERMIT VENTILATION PROCEDURE	Possible toxic atmosphere (carbon monoxide). Temperature. Extreme air flow. Mechanical belt and shaking mechanism.	1. Multi gas air monitor. 2. Portable blower may be necessary. HOT WORK REQUIRES VENTILATION PROCEDURE	AS NEEDED FOR MAINTENANCE
		VENTILATION PROCEDURE 1. Run blowers pre-entry to allow castings to cool. 2. Lockout related equipment, belt, shaker, etc. 3. Lockout supply blowers during entry. 4. Suction air remains on for ventilation. 5. Air monitoring must be within acceptable limits, prior to and during entry.		
#10007169 ROTARY CORE BUTT SCREEN & ENCLOSURE	NON PERMIT	Mechanical movement of rotary screen and in-feed and out-going conveyor belts. Fall hazard greater than 4 feet.	Fall protection equipment FALL PROTECTION REQUIRED WHEN CHANGING SCREENS HOT WORK REQUIRES VENTILATION PROCEDURE	WEEKLY
		1. Lockout rotary screen, in & out feed conveyor systems. 2. Close opening to chute.		
CHUTE FROM ROTARY SCREEN	PERMIT REQUIRED	Toxic atmosphere, dusty atmosphere Engulfment Extreme fall hazard	1. Multi gas air monitor. 2. Fall protection - body harness attached to a mechanical retrieval device. 3. Portable blower/fan may be needed.	AS NEEDED FOR MAINTENANCE ANNUAL
		1. Empty contents & block inflow. 2. Lockout related equipment (rotary screen). 3. Fall protection with mechanical retrieval. 4. Air monitoring must be within acceptable limits. 5. Continuous ventilation.		

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#10007174 200 TON SAND TANK (Below Rotary Screen)	PERMIT REQUIRED	Toxic atmosphere, dusty atmosphere Engulfment Fall hazard 1. Empty contents & block inflow. 2. Lockout related equipment (rotary screen & #26 belt) 3. Lock both hatches in the open position. 4. Fall protection with mechanical retrieval. 5. Air monitoring must be within acceptable limits.	1. Multi gas air monitor. 2. Fall protection - body harness attached to a mechanical retrieval device. 3. Portable ladder.	AS NEEDED FOR MAINTENANCE ANNUAL
#10007190 WASTE SAND SILO (Trash belt separator silo)	PERMIT REQUIRED	Toxic atmosphere, historically there has been low level Carbon monoxide during entry. Engulfment in contents (sand). Fall hazard greater than 4 feet. 1. Block the inflow lines to silo. 2. Empty contents of silo. 3. Air monitoring must demonstrate acceptable limits.	1. Multi gas air monitor. 2. Body harness attached to a mechanical retrieval device.	AS NEEDED
#10007170 #25 G.K. SAND COOLER	NON PERMIT VENTILATION PROCEDURE NON PRODUCTION ENTRY ONLY	Dusty atmosphere. Excessive heat. Excessive air flow. Natural gas burners VENTILATION PROCEDURE 1. Run blowers before entry to allow shaker to cool. 2. Continuous ventilation, either system air, or a portable blower. 3. Air monitoring must demonstrate acceptable limits prior to and during entry. 4. Lockout burners	Continuous air and air monitoring for hot work Multi gas air monitor HOT WORK REQUIRES VENTILATION PROCEDURE - CONTINUOUS AIR FLOW AND AIR MONITORING.	WEEKLY

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#10006862 DUST HOLDING SILO	PERMIT REQUIRED	Dusty atmosphere. Potential to engulf. Fall hazard greater than 4 feet. Pneumatic in-feed, top of silo Mechanical auger in bottom of silo. 1. Block pneumatic in-flow of dust. 2. Empty contents of silo. 3. Lockout auger in bottom. 4. Air monitoring must demonstrate acceptable limits. 5. Fall protection with mechanical retrieval required.	1. Multi gas air monitor. 2. Body harness attached to a mechanical retrieval system. 3. Portable ladder.	EVERY 5 YEARS ONLY AS NEEDED
#13 SHAKER PIT #4,5,6 AND 7 COOLER PITS	NON PERMIT	Mechanical conveyor. Lockout conveyor if any guards are removed.	HOT WORK REQUIRES VENTILATION PROCEDURE - CONTINUOUS AIR FLOW AND AIR MONITORING.	DAILY
#10007213 #10007228 #10007243 #10007258 #10007273 #10007288 100-B MULLORS #1-6	NON PERMIT	Low level CO noted in mullor before sand is emptied, levels depend on amount of reclaim or sand from core jobs. Dusty atmosphere. Mechanical hazard - spinning plow. Engulfment in contents (sand). 1. <u>Empty contents of mullor.</u> 2. Lockout plow and related equipment. 3. Block sand inflow.	HOT WORK REQUIRES VENTILATION PROCEDURE - CONTINUOUS AIR FLOW AND AIR MONITORING. <u>If mullor cannot be emptied prior to entry-</u> FOLLOW VENTILATION PROCEDURES WITH PRE- ENTRY & CONTINUOUS AIR MONITORING.	WEEKLY
#10007224 #10007239 #10007254 #10007269 #10007284 #10007299 MULLOR SILOS #1-6	PERMIT REQUIRED	Toxic atmosphere, historically there has been low level Carbon monoxide during entry. Engulfment in contents (sand). Fall hazard greater than 4 feet. 1. Block the inflow lines to silo. 2. Empty contents of silo. 3. Air monitoring must demonstrate acceptable limits.	1. Multi gas air monitor. 2. Body harness attached to a mechanical retrieval device.	QUARTERLY
#10007304 #1 BOND TANK (EAST) #10007305 #2 BOND TANK (WEST) (GREEN SAND SYSTEM) #10007307 BOND DAY TANK/HOPPER	PERMIT REQUIRED	Dusty atmosphere, difficult ventilation. Engulfment in contents (bond/sand). Fall hazard greater than 4 feet. 1. Block the inflow lines to tank. 2. Empty contents of tank. 3. Air monitoring must demonstrate acceptable limits. *SCBA may be necessary for entry. *No hot work permitted on lining of silo.	1. Multi gas air monitor. 2. Body harness attached to a mechanical retrieval device. 3. SCBA	AS NEEDED FOR MAINTENANCE ONLY

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#10007303 NEW SAND SILO	PERMIT REQUIRED	Dusty atmosphere, difficult ventilation. Engulfment in contents (bond/sand). Fall hazard greater than 4 feet.	1. Multi gas air monitor. 2. Body harness attached to a mechanical retrieval device.	AS NEEDED FOR MAINTENANCE ONLY
		1. Block the inflow lines to tank. 2. Empty contents of tank. 3. Air monitoring must demonstrate acceptable limits.		
#10007183 RECLAIM SAND SILO	PERMIT REQUIRED	Dusty atmosphere, difficult ventilation. Engulfment in contents (bond/sand). Fall hazard greater than 4 feet.	1. Multi gas air monitor. 2. Body harness attached to a mechanical retrieval device.	AS NEEDED FOR MAINTENANCE ONLY
		1. Block the inflow lines to tank. 2. Empty contents of tank. 3. Air monitoring must demonstrate acceptable limits.		
#10006859 METALLICS SILO	PERMIT REQUIRED	Dusty atmosphere, difficult ventilation. Engulfment in contents. Fall hazard greater than 4 feet.	1. Multi gas air monitor. 2. Body harness attached to a mechanical retrieval device.	AS NEEDED FOR MAINTENANCE ONLY
		1. Block the inflow lines to tank. 2. Empty contents of tank. 3. Air monitoring must demonstrate acceptable limits.		
#10012678 #6 RETURN SAND HOPPER	PERMIT REQUIRED	Dusty atmosphere, difficult ventilation. Engulfment in contents. Fall hazard greater than 4 feet. Mechanical hazard - belt in bottom.	1. Multi gas air monitor. 2. Body harness attached to a mechanical retrieval device.	ANNUAL
		1. Block the inflow lines to tank. 2. Empty contents of tank. 3. Lockout belt @ bottom. 4. Air monitoring must demonstrate acceptable limits.		
#10006885 SPINNER CABINET	NON PERMIT	Mechanical hazard, shot wheels moving and throwing shot.	HOT WORK REQUIRES VENTILATION PROCEDURE - CONTINUOUS AIR FLOW AND AIR MONITORING	DAILY
		1. Lockout of shot wheels and spinner. 2. Allow time for shot wheel movement to stop.		
SPINNER CABINET PITS	NON PERMIT	Mechanical hazard, bucket elevator, shaker moving overhead	HOT WORK REQUIRES VENTILATION PROCEDURE -	DAILY
		1. Lockout of spinner, shaker, bucket elevator.		
#10006632 (#4) #10006672 (#5) #10006711 (#6) #10006749 (#7) CONTINUUBLAST	NON PERMIT	Mechanical hazard, shot wheels moving and throwing shot.	When hot work is being performed: 1. Multi gas air monitor. 2. Ventilation procedure.	DAILY
		1. Lockout of shot wheels and spinner. 2. Allow time for shot wheel movement to stop.		
		WHEN HOT WORK IS PERFORMED SPACE BECOMES PERMIT REQUIRED. VENTILATION AND CONTINUOUS AIR MONITORING ARE REQUIRED. FOLLOW VENTILATION PROCEDURE. FOLLOW VENTILATION PROCEDURE.		

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#10006749(#1) #10006514 (#1A) #10006555 (#2) #10006593 (#3) #10006767 (#7A) #10006780 (#7B) TUMBLEBLAST	NON PERMIT	Mechanical hazard of equipment moving, shot wheels, in/out feed shakers, box dumpers. Mechanical hazard of door opening/closing. 1. Lockout all related equipment including shot wheels, motors, shakers, door.	HOT WORK REQUIRES VENTILATION PROCEDURE - CONTINUOUS AIR FLOW AND AIR MONITORING.	DAILY
#32500-200 P3 MILLROOM PIT (TRASH)	NON PERMIT	Mechanical hazard of belts, conveyors if guards are removed. Lockout related equipment if guards are removed.	Employee entering space requires the use of a 6000 Serious Full Face Respirator for dust.	
#10007478 BAGHOUSE STACK #18, 19, 20, 21	NON PERMIT VENTILATION PROCEDURE	Natural gas burner used in space. Possible toxic or low oxygen atmosphere. Excessive air flow if blowers are running. Temperature - heat. VENTILATION PROCEDURE 1. Purge system, vent until cooling takes place. 2. Air monitoring must be acceptable prior to and during entry. 3. Lockout blowers (39166-616, 39199-636) and burners, including gas supply line (31045-560 & 31045-561) 4. Block open door/secure.	1. Multi gas air monitor. 2. Portable ventilation may be needed, but is not expected as there is a natural draft when door is opened.	
#10007488 BLOWER & STACK #23, 24, 25, 26	NON PERMIT VENTILATION PROCEDURE NON PRODUCTION ENTRY ONLY	Possible toxic or low oxygen atmosphere. Excessive air flow if blowers are running Temperature - Heat. VENTILATION PROCEDURE 1. Purge system, vent until cooling takes place. 2. Air monitoring must be acceptable prior to and during entry. 3. Lockout blowers (39199-638, 39199-639) 4. Block open door/secure	1. Multi gas air monitor. 2. Portable ventilation may be needed, but is not expected as there is a natural draft when door is opened.	

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#19190 ROOF TOP HVAC UNITS AIR MAKE UP	NON PERMIT	Excessive air flow. Perform lockout on related equipment.		AS NEEDED FOR MAINTENANCE
NEW CONSOLIDATED STACKS 10014672,10017673	NON PERMIT VENTILATION PROCEDURE	Toxic air possible. Dusty atmosphere... VENTILATION PROCEDURE 1. Lockout related equipment. 2. Continuous ventilation either with system air, or portable blower. 3. Air monitoring must be within normal limits.	1. Multi gas air monitor. 2. Portable blower may be necessary. NO HOT WORK ALLOWED!!	EVERY 2 WEEKS
#10007511 DUST SILO	PERMIT REQUIRED	Dust atmosphere. Pneumatic transporter and auger coming into space Engulfment Fall Hazard 1. Empty contents of silo 2. Lockout transporter and auger 3. Block incoming product 4. Lock OPEN hatch door/secure 5. Fall protection equipment, with mechanical retrieval 6. Air monitoring must be acceptable prior to and during entry.	1. Fall protection attached to mechanical retrieval. 2. Multi gas air monitor.	
#10007505 PATTERN SHOP DUST COLLECTOR	NON PERMIT	Dusty atmosphere 1. Lockout related equipment. 2. No hot work allowed with bags in place.		EVERY 5 YEARS
#10007427 BAGHOUSE/DUST COLLECTION #17	NON PERMIT VENTILATION PROCEDURE	Toxic air possible - draws air from mold cooling lines, which may contain carbon monoxide. Dusty atmosphere. VENTILATION PROCEDURE 1. Lockout related equipment. 2. Continuous ventilation either with system air, or portable blower. 3. Air monitoring must be within normal limits.	1. Multi gas air monitor. 2. Portable blower may be necessary. NO HOT WORK ALLOWED WITH BAGS IN PLACE!!	WEEKLY

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BAGHOUSE/DUST COLLECTION #10007439,10007446,10007415,10007420,10007496,10007451,10007455,10007459,10007471,10007475,10007477,10007480,10007482,10007487,10007490,10007493,10007434,10007466,10015090	NON PERMIT	Dusty atmosphere. 1. Lockout related equipment, inflow blowers. 2. No hot work with bags in place.			WEEKLY
#10007501 CIELCOTE TANK	NON PERMIT REQUIRED	Engulfment in contents. Mechanical hazard. Surface may be slippery. Drain main tank into holding tank, close valve and lock closed Lock ball valve for city water inflow. Lockout drag chain.		Portable ladder	
WF LANDFILL MANHOLES SITE #2638, 3171, 3412 S and E,	PERMIT REQUIRED	Fall hazard greater than 4 feet. Possible toxic atmosphere due to underground status, possible fuel run off etc. 1. Provide external barricade to prevent accidental fall into space. 2. Air monitoring must be acceptable prior to and during entry		1. Multi gas air monitor. 2. Body harness attached to a mechanical retrieval 3. Portable ladder. 4. External barricade.	
MANHOLES / STORM SEWERS Located throughout the facility and surrounding outside areas	PERMIT REQUIRED	Possible toxic atmosphere. Contains material that can engulf Fall hazard Entrapment or insects	Fall Animals	Multi gas monitor Body Harness Mechanical retrieval 2-way radio Portable lighting NO ENTRY DURING RAIN	As needed for maintenance
VEHICLE MAINTENANCE STEAM CLEANER SUMP PIT	PERMIT REQUIRED	Possible hazardous atmosphere depending on cleaners, or drainage in pit. Mechanical sump pump. Fall hazard - 5.5 > deep. 1. Empty contents of pit. 2. Open all covers to pit for ventilation. 3. Provide barriers to prevent unintentional fall into pit. 4. Air monitoring must be acceptable prior to and during entry.		1. Multi gas air monitor. 2. Body harness attached to mechanical retrieval device.	
DUST COLLECTOR R & D SHOP	NON PERMIT	Excess blowing air & dust. 1. Lockout blower, open door.			
Pallet lift 10006040,10006041,10006042,10013776,10006044,10006046,10006048,10006049,10006050,10006053,10006532,10006533,10006571,10006572,10006573,10006610,10006611,10006612,10006650,10006651,10006652,10006690,10006691,10006729,10006790,10006791,10006791,10006792,10015042,	NON PERMIT	1. Lock out related equipment 2. Put I-beams into place 3. Area must be blocked off from vehicle traffic		VENTILATION PROCEDURE - CONTINUOUS AIR FLOW AND AIR MONITORING.	
OFFICE - WEST WING SEWER PUMP LIFT STATION	PERMIT REQUIRED	1. Fall Hazard Greater than 4 feet. 2. Possible Toxic atmosphere (sewage).		Multi gas monitor ; barricade ; harness/tripod retrieval;	AS NEEDED.

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		1. Mechanical retrieval. 2. Electrical : Lockout related equipment. 3. Provide External Barricade. 4. Ventilate using portable blower. 5. Continuous air monitoring with multi gas air monitor.		
#1 FIREHOSE 10006108 #1 DISCHARGE 10006114 #2 FIREHOSE 10006171 #2 DISCHARGE 10006177 #3 FIREHOSE 10006233 #4 FIREHOSE 10006294 #4 DISCHARGE 10006300 #5 DISCHARGE 10006363 #6 FIREHOSE 10006419 #6 DISCHARGE 10006424 #7 DISCHARGE 10006480	NON PERMIT VENTILATION PROCEDURE	1. Lock out related equipment. 2. Air monitoring must be within acceptable limits prior to and during entry. 3. Continuous air flow.	1. Multigas air monitor. 2. Continuous air flow. 3. Portable fan/blower may be needed.	AS NEEDED
DIDION #10007163	NON PERMIT	Extreme temperature, mechanical rotation 1. Let cool for 2-3 hours 2. Lock out related equipment	HOT WORK REQUIRES VENTALTION AND CONTINUOUS AIR MONITORING	AS NEEDED