

DuPont FS&RE Job Safety Analysis					
Post Completed Copy of this Form at Job Site					
If still in effect after 7 days, this JSA shall be reviewed and updated					
Author	Kevin Frazee (JCI)				
Job Title	RTP CHILLER PUMP SHAFT SEAL REPLACEMENT			Site Security All Emergencies	302-695-3131
Location	E306	Work Order #		Contract Order #	
Start Date	10/12/2017	Completion Date		Rally point	E306 Parking Lot
Company	Johnson Controls	Job Lead	Kevin Frazee	Phone	302-353-0315
Building Contact	Paul Barnes	Location	E306	Phone	302-218-9996
Safety Resource	Anita Sargable	Phone	302-695-3728	Cell Phone	302-250-1293
Reviewed By		Phone		Cell Phone	

Scope of Work / Job Description	
Attached Sketch or Diagram of Work if Required (If at any time the scope of work changes, a new or revised JSA is required)	
<input type="checkbox"/> Lock Out RTP Chiller and Chilled Water Pumps <input type="checkbox"/> Drain Glycol from Pump #1 into drums <input type="checkbox"/> Disconnect Pump #1 Wiring & Remove Motor Assembly from Pump Casing <input type="checkbox"/> Remove and Replace Mechanical Shaft Seal <input type="checkbox"/> Clean components and Re-install Motor Assembly into Pump Casing <input type="checkbox"/> Re-Wire Pump Motor, Unlock and Restore Power to Chiller and Pumps <input type="checkbox"/> Pump Drained Glycol back into System, Run Pumps, Vent Air, Add Additional Glycol as needed, & Verify Performance	

Specialty Tools and Equipment Required
Basic Hand Tools, Multimeter, Glycol Pump

General Conditions and Safety Review			
<input type="checkbox"/> Contractor Safety handbook available	<input type="checkbox"/> N/A	<input type="checkbox"/> Respectful work environment	<input type="checkbox"/> N/A
<input type="checkbox"/> Incident Reporting/Injury Mgt.	<input type="checkbox"/> N/A	<input type="checkbox"/> Hand Safety	<input type="checkbox"/> N/A
<input type="checkbox"/> Barricading Work Areas	<input type="checkbox"/> N/A	<input type="checkbox"/> Vehicular Safety	<input type="checkbox"/> N/A
<input type="checkbox"/> Material Delivery	<input type="checkbox"/> N/A	<input type="checkbox"/> Ladders and Scaffolds	<input type="checkbox"/> N/A
<input type="checkbox"/> Smoking	<input type="checkbox"/> N/A	<input type="checkbox"/> Spills	<input type="checkbox"/> N/A
<input type="checkbox"/> Refrigerant certification records for HVAC technicians and SUVA awareness in mechanical rooms			<input type="checkbox"/> N/A
<input type="checkbox"/> Other <input type="checkbox"/> N/A			

Personal Protective Equipment			
<input type="checkbox"/> Hard hat	<input type="checkbox"/> N/A	<input type="checkbox"/> Safety glasses	<input type="checkbox"/> N/A
<input type="checkbox"/> Hearing protection	<input type="checkbox"/> N/A	<input type="checkbox"/> Fall protection	<input type="checkbox"/> N/A
<input type="checkbox"/> Goggles	<input type="checkbox"/> N/A	<input type="checkbox"/> Hot suit	<input type="checkbox"/> N/A
<input type="checkbox"/> GFCI	<input type="checkbox"/> N/A	<input type="checkbox"/> Face shield	<input type="checkbox"/> N/A
<input type="checkbox"/> Chemical suit	<input type="checkbox"/> N/A	<input type="checkbox"/> Tyvek® suit	<input type="checkbox"/> N/A
<input type="checkbox"/> Electrical	<input type="checkbox"/> N/A	<input type="checkbox"/> Other	<input type="checkbox"/> N/A
<input type="checkbox"/> Gloves	<input type="checkbox"/> N/A	<input type="checkbox"/> Respirator	<input type="checkbox"/> N/A
<input type="checkbox"/> Arc flash protection	<input type="checkbox"/> N/A	<input type="checkbox"/> Cut-off box	<input type="checkbox"/> N/A
<input type="checkbox"/> Welding & Burning	<input type="checkbox"/> N/A		

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Hazards Identified	Hazard Elimination or Control	Detail for Hazard Elimination/Control
<input type="checkbox"/> Electrical	<input type="checkbox"/> N/A <input type="checkbox"/> Lock-out plan <input type="checkbox"/> Line break	<input type="checkbox"/> Chiller and Pump Disconnect Lock Out @ Unit
<input type="checkbox"/> Potential to find Chemical hazards	<input type="checkbox"/> N/A <input type="checkbox"/> Lock-out plan <input type="checkbox"/> Line break <input type="checkbox"/> Inspect Area	
<input type="checkbox"/> Utility interruption	<input type="checkbox"/> N/A <input type="checkbox"/> Shut-down of building services	
<input type="checkbox"/> Electrically Hazardous Task	<input type="checkbox"/> N/A <input type="checkbox"/> Limited <input type="checkbox"/> Restricted <input type="checkbox"/> Prohibited	
<input type="checkbox"/> Electrically Classified Area	<input type="checkbox"/> N/A <input type="checkbox"/> Flame/hot work Permit <input type="checkbox"/> Air Monitoring	
<input type="checkbox"/> Asbestos, NARF's, lead	<input type="checkbox"/> N/A <input type="checkbox"/> NESHAPS (DES)	
<input type="checkbox"/> Explosive Atmospheres	<input type="checkbox"/> N/A <input type="checkbox"/> Flame/hot work Permit <input type="checkbox"/> Air Monitoring	
<input type="checkbox"/> Respiratory irritants	<input type="checkbox"/> N/A <input type="checkbox"/> Respirators	
<input type="checkbox"/> Welding, Burning, Soldering, Dust	<input type="checkbox"/> N/A <input type="checkbox"/> Flame/hot work Permit <input type="checkbox"/> Life Safety Impairment	
<input type="checkbox"/> Confined space	<input type="checkbox"/> N/A <input type="checkbox"/> Permit Required <input type="checkbox"/> Non-Permit Required	
<input type="checkbox"/> Trenching, digging, wall penetrations	<input type="checkbox"/> N/A <input type="checkbox"/> Excavation permit <input type="checkbox"/> Shoring	
<input type="checkbox"/> Contaminated equipment	<input type="checkbox"/> N/A <input type="checkbox"/> Release Tag	
<input type="checkbox"/> Working on roofs	<input type="checkbox"/> N/A <input type="checkbox"/> Roof entry <input type="checkbox"/> Fall protection	
<input type="checkbox"/> Rigging work, hoisting	<input type="checkbox"/> N/A <input type="checkbox"/> Equip. Inspection <input type="checkbox"/> Lift plan	
<input type="checkbox"/> Working in parking lots, roadways, etc.	<input type="checkbox"/> N/A <input type="checkbox"/> Containment High <input type="checkbox"/> Visibility Clothing	
<input type="checkbox"/> Indoor Air Quality (Paint, Adhesives, Odors)	<input type="checkbox"/> N/A <input type="checkbox"/> After Hour Work <input type="checkbox"/> Proper Ventilation	
<input type="checkbox"/> PSM, animal or food grade areas	<input type="checkbox"/> N/A <input type="checkbox"/> Orientation required <input type="checkbox"/> Special Training	
<input type="checkbox"/> Elevated Work	<input type="checkbox"/> N/A <input type="checkbox"/> Ladders <input type="checkbox"/> Scaffolding <input type="checkbox"/> Fall Prevention	
<input type="checkbox"/> Work above ceilings	<input type="checkbox"/> N/A <input type="checkbox"/> Hard Hats <input type="checkbox"/> Goggles	
<input type="checkbox"/> Slips, Trips and Falls	<input type="checkbox"/> N/A <input type="checkbox"/> Good housekeeping	
<input type="checkbox"/> Spills	<input type="checkbox"/> N/A <input type="checkbox"/> Report all Spills to Security	
<input type="checkbox"/> Other	<input type="checkbox"/> N/A <input type="checkbox"/> Lock-out plan <input type="checkbox"/> Line break <input type="checkbox"/> Inspect Area	

Applicable Permits & Procedures

<input type="checkbox"/> Lock, Tag, Clear and Try	<input type="checkbox"/> N/A	<input type="checkbox"/> Confined Space Entry	<input type="checkbox"/> N/A	<input type="checkbox"/> Line Break	<input type="checkbox"/> N/A	<input type="checkbox"/> Fall Prevention	<input type="checkbox"/> N/A
<input type="checkbox"/> Work Permit	<input type="checkbox"/> N/A	<input type="checkbox"/> Electrical Shutdown	<input type="checkbox"/> N/A	<input type="checkbox"/> Hot Work Permit	<input type="checkbox"/> N/A	<input type="checkbox"/> Crane Permit	<input type="checkbox"/> N/A
<input type="checkbox"/> Wall / Floor Penetration Permit	<input type="checkbox"/> N/A	<input type="checkbox"/> Transfer of Equip. Proprietorship	<input type="checkbox"/> N/A	<input type="checkbox"/> Excavation Permit	<input type="checkbox"/> N/A	<input type="checkbox"/> Roof Entry	<input type="checkbox"/> N/A
<input type="checkbox"/> Decontamination of Equipment	<input type="checkbox"/> N/A	<input type="checkbox"/> Life Safety / Fire Protection Shutdown	<input type="checkbox"/> N/A	<input type="checkbox"/> Change of Design	<input type="checkbox"/> N/A	<input type="checkbox"/> NESHAPS	<input type="checkbox"/> N/A
<input type="checkbox"/> Other Permits / Procedures	<input type="checkbox"/> N/A						

Employees on the Job

Everyone working within the scope of this JSA must read and sign here before starting work. Attach additional sheets if necessary.					
Name	Date	Name	Date	Name	Date
1)		4)		7)	
2)		5)		8)	
3)		6)		9)	