

# My Risk Analysis

## Pulp & Paper 360°



### JOB-RELATED RISK ANALYSIS PROCESS

Risks related to the JOB ORGANIZATION

Risks related to INDIVIDUAL CAPACITY

Risks related to the PHYSICAL WORK ENVIRONMENT

Risks related to ERGONOMICS

Risks related to GRAVITY

Risks related to EQUIPMENT TOOLS

Risks related to ENERGY RELEASES

Risks related to LINES OF FIRE

Control Measures



268704 REV. 11.21

Contractor: \_\_\_\_\_ Phone: \_\_\_\_\_  
 RFP Contact: \_\_\_\_\_ Phone: \_\_\_\_\_

**EMERGENCY# :** **256-378-2222**

		360° Questions		Yes	No
Name : _____		8. Could my body end up in a line of fire (splash, loss of balance, tool slipping contact (struck by/agains), sharp object around me)?		<input type="checkbox"/>	<input type="checkbox"/>
Equipment # : _____		9. Is there any risk of falling while doing this job (slippery floor/ground, clutter, work at heights, absence of guardrails)?		<input type="checkbox"/>	<input type="checkbox"/>
Job : _____		10. Will I have to move/guide a suspended load using an overhead crane or lifting equipment?		<input type="checkbox"/>	<input type="checkbox"/>
Date : _____ Time : _____		11. Is jobsite clean and uncluttered (no hoses, parts, tools, lumber, pulp or paper, liquid on the ground)?		<input type="checkbox"/>	<input type="checkbox"/>
Classification : #1 <input type="radio"/> #2 <input type="radio"/> #3 <input type="radio"/>		12. Is my job controlled by a documented reference (AWWI, procedure, regulation or work permit)?		<input type="checkbox"/>	<input type="checkbox"/>
360° Questions	Yes	No	13. Will I need to use heavy or mobile equipment (inspection and operating condition)?		<input type="checkbox"/>
1. Am I conscious and competent (personal state and adequately trained) to do this job?	<input type="checkbox"/>	<input type="checkbox"/>	14. Does any load to be lifted weigh more 50 lb?		<input type="checkbox"/>
2. Is there anything different today (new worker(s), unusual operating conditions, exceptional weather)?	<input type="checkbox"/>	<input type="checkbox"/>	15. Is work done near a watercourse, structure (process/storm sewer), or location (door, non-confined space) that could allow any spilled product to get into the environment (water, air, ground) or effluent treatment?		<input type="checkbox"/>
3. Do I have the proper tools, equipment and a spill kit close at hand, and are they in good condition?	<input type="checkbox"/>	<input type="checkbox"/>	16. Does my job involve working with equipment, tanks or other vessels containing chemicals (liquid, solid or gas) or petroleum products that could spill out?		<input type="checkbox"/>
4. Do I have all required PPE for the job to be done, and is it in good condition?	<input type="checkbox"/>	<input type="checkbox"/>	17. Will any equipment need to be drained, or will my job generate waste?		<input type="checkbox"/>
5. Does my job require controlling energy sources or equipment containing gas or liquid that could require a lockout?	<input type="checkbox"/>	<input type="checkbox"/>			
6. I confirm that I have visually validated that the equipment/process on which I am about to work is properly locked out and at zero energy (validate equipment # vs. Lockout Sheet).	<input type="checkbox"/>	<input type="checkbox"/>			
7. Does my job require locking out a nuclear source?	<input type="checkbox"/>	<input type="checkbox"/>			

PERMITS	<input type="checkbox"/> Lockout	<input type="checkbox"/> Line Breaking	<input type="checkbox"/> Warehouse Access	<input type="checkbox"/> Electrical Safety	<input type="checkbox"/> Overhead Crane Access
	<input type="checkbox"/> Confined Space	<input type="checkbox"/> Hot Work	<input type="checkbox"/> Lifting/Moving Heavy Parts	<input type="checkbox"/> Ladders & Stepladders	<input type="checkbox"/> Other

1- POTENTIAL LINE OF FIRE	2- LOCATION (ENERGY SOURCE)	3- INJURY RISK SCENARIO (HOW AN ENERGY RELEASE COULD HURT ME)
1-	2-	3-
4- Control Measure :		
1-	2-	3-
4- Control Measure :		
1-	2-	3-
4- Control Measure :		

OTHER HAZARDS/RISKS	RISK CONTROL MEASURES

Safety Focus:

POTENTIAL LINES OF FIRE (check all that apply)													
<input type="checkbox"/> Struck by	<input type="checkbox"/> Object falling from above	<input type="checkbox"/> Use of excessive force	<input type="checkbox"/> Contact with chemicals	<input type="checkbox"/> Contact with sharp object									
<input type="checkbox"/> Striking against	<input type="checkbox"/> Falling from upper level	<input type="checkbox"/> Pulling/pushing on	<input type="checkbox"/> Splashed by	<input type="checkbox"/> Contact with electricity									
<input type="checkbox"/> Pinched in/on/between	<input type="checkbox"/> Slipping/tripping	<input type="checkbox"/> Dust/particles	<input type="checkbox"/> Exposure to gas/smoke	<input type="checkbox"/> Contact with extreme temp.									

H&S Quality Criteria	1	2	3	4	5	6	Environm. Quality Criteria	1	2
	<b>Total Score</b>							<b>/18</b>	



### 360°RA Audit Questions - Safety

1=NO / 3=YES

1 3

1	Have all sections of the form been completed?		
2	Was PJRA completed in the field for the non-routine job or for at least one routine job posted at the workstation (and did employee complete a different PJRA for a different routine job at the start of each shift)?		
3	Did employee recognize at least TWO potential exposures to a line of fire for hands or body (TYPE, LOCATION AND HOW) and are their control measures detailed in every form audited?		
4	Did employee identify and document adequate/relevant control measures for ALL hazards he listed? (be safe/vigilant, good communication or other similar vague control measures are not ACCEPTABLE)		
5	If a control measure involved several actions, did employee document which specific one(s) would adequately control the risk (e.g. Level 1.5 suit, ice cleats, harness, etc.)?		
6	Did employee identify at least 5 hazards controlled by adequate preventative measures in every PJRA audited?		
7	Safety Focus Included? (Circle one) YES / NO		

### 360°RA Audit Questions - Environment

1 3

1	Did employee consider the potential impact of his job on the environment?		
2	Did the employee identify at least one environmental risk/hazard as well as adequate control measures to protect the environment?		

### Checklist : Hazards/Risks

### Health & Safety

#	Hazards/Risks	Control Measures	#
16	Mechanical (moving part, being crushed/ pinched/pulled in, cut, abrasion)	Level 5 cut-resistant gloves, steel mesh gloves	A
17	Hands/arms (potentially in the line of fire (struck against / crushed between / cut by)	Level 5 cut-resistant forearm/thorax protection	B
18	Co-activity (two people working in the same environment, mobile equipment traffic)	Level 1.0 or 1.5 Chemical protective suit (+face shield, splash goggles, fitted gloves)	C
19	Electrical (live part, electric line, explosion, bus bar, exposed wire)	Level 1.0 or 1.5 Hot Material protective suit (+face shield, splash goggles, fitted gloves)	D
20	Thermal (molten metal, hot surface)	Level 2, 3 or 4 Arc Flash protective suit	E
21	Hand/portable tool (capacity, safety latch, weight, slinging, anchoring)	Position body out of anticipated line of fire / Install a shield if contact is possible in the line of fire / Maintain visual contact at all times	F
22	Hoisting equipment (capacity, safety latch, weight, slinging, anchoring)	Inspect tool compliance / Hoisting equipment capacity and condition	G
23	Work environment (deficient lighting, dust concentration, slippery surface, anomaly/trap)	Specific PPE (dustproof glasses, ice cleats, respiratory protection, lamp, safety harness, welder's gloves)	H
24	Hazardous Chemical / Black-Green-White Liquor (risk of contact by splashing)	Inspect mobile equipment compliance / Constantly watch for the presence of pedestrians...	I
25	Liquids/Mist >140°F/80°C (contact with steam, condensate, pulp, white water...)	Delimit work area to control access depending on type of hazard (red/yellow tape)	J
26	Residual energy (welding work, arc flash, X rays)	Use a tag line to move/guide/control load when using an overhead or mobile crane	K
27	Thermal stress (heat stroke, cold, frostbite)	Apply ergonomic lifting methods (load close to body, back straight, legs bent, ask for help)	L
28	Radiation (welding work, arc flash, X rays)	Use a cooling vest, fluids every 20 minutes, take breaks / rotate workers	M
29	Ergonomics/Noise (sustained physical effort, awkward posture, noise >85 dB, impact noise...)	Hoses coiled/covered/hung up, things on ground picked up before starting work Specific work permit approved and revised	N

### Checklist : Hazards/Risks

### Environment

#	Hazards/Risks	Control Measures	#
30	Spill (chemical or petroleum product)	Carefully plan my job and identify potential risks	P
31	Spill (white water, liquor, effluent or other liquid)	Develop a PLAN B and have the right spare parts on hand	Q
32	Solid spill (sawdust, pulp, sludge, clay, particles, etc.)	Repair any anomaly before proceeding	R
33	Leak or crack undetected until the work has started	Make a visual inspection before proceeding	S
34	Gas leak: (natural gas, refrigerant, ozone- depleting substance, ammonia nitrogen, carbon dioxide, oxygen, noncondensable gas, H2S, etc.)	Ensure containment or pond is impervious and has adequate capacity before any draining or diverting initiative	T
35	Air release (black liquor vapor, opacity, other particles, etc.)	Ensure equipment to be used is working properly	U
36	Secondary containment or containment area (dike) leaking, full or damaged	Follow the emergency spill procedure (have a spill kit on hand)	V
37	Loose or loose piece of equipment (piping, fitting, belt, cylinder, line, valve, seal ring)	Tighten pieces where necessary and replace any defective or inadequate piece of equipment	W
38	Failure of critical or environmental monitoring equipment (clarifier scraper, precipitator, pump, pH probe, opacimeter, etc.)	Ensure manhole covers are in place Make sure to open and close valves	X Y
39	Failure caused by the movement of heavy / mobile equipment	Apply lockout measures	Z
40	Waste generation	Drain equipment completely prior to dismantling, storage or disposal	AA
41	Improperly positioned valve (open drain, etc.)		
42	Spare part not available or inadequate	Prepare a waste disposal plan	BB
43	Power failure	Validate with my Supervisor	CC
46	Others (specify clearly) :	Contact the person in charge of environmental affairs and/or the effluent treatment plant operator	DD



**Guidelines – Line of Fire Concept**  
**HANDS/ARMS-SPECIFIC REQUIREMENTS**

<b>1.</b>	<b>Pushing/pulling on a tool or equipment</b>
1.1	How will you control the risk of your hands/arms striking something or being crushed/ pinched if your tool suddenly slips while you are pushing/pulling on it?
1.2	How will you control the risk of your hands/arms being cut if your tool suddenly slips while you are pushing/pulling on it?
<b>2.</b>	<b>Manually lifting/carrying equipment</b>
2.1	How will you control the risk of your hands/arms being crushed/pinched if load suddenly slips out of your hands while you are lifting/moving it manually?
<b>3.</b>	<b>Moving/installing equipment or parts</b>
3.1	How will you control the risk of your hands/arms being crushed/pinched if load suddenly moves towards you while you are guiding it or standing less than 4 ft away?
<b>4.</b>	<b>Placing hands on/near equipment or tools that could become energized or start rotating, even if equipped with protective guards</b>
4.1	How will you control the risk of your hands/arms being crushed/pinched/cut if pulled in by the rotating part of your tool that suddenly starts moving, or by process equipment that is activated while you are less than 2 ft away?
<b>5.</b>	<b>Moving arms within 2 ft of a process/mobile equipment structure</b>
5.1	How will you control the risk of your hands/arms being crushed/pinched by a structure nearby if you suddenly strike it as you move your arms within the ≤ 2 ft restricted area?

**Classification & Monitoring (Operations)**

	<b>Class 1</b>	<b>Class 2</b>	<b>Class 3</b>
<b>Job Performer</b>	Trained employee	Employee in training at the workstation	Employee doing a Class 3 job
<b>Job Location</b>	<ul style="list-style-type: none"> <li>On operating floor</li> <li>Regular station</li> <li>In control room</li> </ul>	<ul style="list-style-type: none"> <li>In a hot zone</li> <li>Inside locked out equipment</li> <li>In co-activity</li> </ul>	<ul style="list-style-type: none"> <li>In a confined space</li> </ul>
<b>Level of Job Knowledge</b>	Employee regularly performs job (has the skills/qualifications)	Employee occasionally performs job (has all the skills/qualifications)	<ul style="list-style-type: none"> <li>Employee does not have all the skills and qualifications</li> <li>Physical/emotional personal condition</li> </ul>
<b>Job Criticality</b>	<ul style="list-style-type: none"> <li>Routine operating job</li> <li>Inspection tour</li> <li>Cleaning/washing</li> <li>Work with air hoses</li> <li>Roll handling</li> <li>Make an order change</li> </ul>	<ul style="list-style-type: none"> <li>Perform a lockout tour</li> <li>Work at heights (≥4 ft)</li> <li>Light/medium work at high temperatures</li> <li>Chemical/petroleum product transportation and handling totes</li> </ul>	<ul style="list-style-type: none"> <li>Line breaking work</li> <li>Hazmat chemical response</li> <li>Work on energized equipment</li> <li>Jam clearing outside control parameters</li> <li>Work that could result in a major spill</li> <li>Installation of a piece of clothing</li> <li>Use of high pressure (≥3,000 psi)</li> <li>Heavy work at high temperatures</li> </ul>
<b>Job-Related Risk Control Requirements</b>	JSA completed by involved worker alone	Jobsite tour + co-signature by operator or a Department co-worker	<ul style="list-style-type: none"> <li>Jobsite tour + co-signature by Supervisor or employer-designated person, and</li> <li>Signature of job-specific work permit (e.g. confined space, line breaking, etc.)</li> </ul>

**Classification & Monitoring (Maintenance/Electrical/Contractor)**

	<b>Class 1</b>	<b>Class 2</b>	<b>Class 3</b>
<b>Job Performer</b>	<ul style="list-style-type: none"> <li>Trained employee</li> <li>Permanent contractor</li> </ul>	<ul style="list-style-type: none"> <li>Employee in training</li> <li>Regular contractor</li> </ul>	<ul style="list-style-type: none"> <li>Employee doing a Class 3 job</li> <li>Occasional contractor</li> <li>New contractor</li> </ul>
<b>Job Location</b>	<ul style="list-style-type: none"> <li>In workshop</li> <li>On operating floor</li> </ul>	<ul style="list-style-type: none"> <li>In a hot zone</li> <li>On locked out equipment</li> <li>In co-activity</li> <li>In warehouses</li> <li>In the presence of gas</li> </ul>	<ul style="list-style-type: none"> <li>In a confined space</li> <li>In a sub-station - High Voltage</li> <li>Maintenance on overhead crane</li> </ul>
<b>Level of Job Knowledge</b>	Employee regularly performs job (has the skills/ qualifications)	Employee occasionally performs job (has all the skills/qualifications)	<ul style="list-style-type: none"> <li>Employee does not have all the skills and qualifications</li> <li>Physical/emotional personal condition</li> </ul>
<b>Job Criticality</b>	<ul style="list-style-type: none"> <li>Regular maintenance</li> <li>Lubrication / oil</li> <li>Inspection</li> <li>Hot Work (in workshop)</li> </ul>	<ul style="list-style-type: none"> <li>Hot Work in the Mill</li> <li>Use of a scissor lift</li> <li>Use of a man basket</li> <li>Heavy parts handling in workshop</li> <li>Use of an angle grinder</li> <li>Work on nuclear source</li> <li>Chemicals/petroleum product transportation and handling totes</li> </ul>	<ul style="list-style-type: none"> <li>Line breaking work</li> <li>Use of a crane</li> <li>Assembly/disassembly with a hydraulic jack</li> <li>Work on energized equipment</li> <li>Live electrical diagnosis (30V and +)</li> <li>Heavy machine parts change in the Mill</li> <li>Use of high pressure (3000 psi and +)</li> <li>Installation of a piece of clothing</li> </ul>
<b>Jobsite Tour &amp; Cosigners</b>	JT completed by the worker involved only	Jobsite tour + co-signature by operator or a Department co-worker	<ul style="list-style-type: none"> <li>Jobsite tour + co-signature by Supervisor or employer-designated person, and</li> <li>Signature of job-specific work permit (e.g. confined space, line breaking, etc.)</li> </ul>



# WORKING AT HEIGHTS

<b>LEVEL 1.0</b>	1.1 WORK FROM A PERMANENT PLATFORM EQUIPPED WITH GUARDRAILS 1.2 WORK FROM GROUND LEVEL USING AN EXTENDABLE TOOL/MIRROR/CAMERA	I COMPLETE MY 360° RA THEN PERFORM THE JOB SAFELY
<b>LEVEL 2.0</b>	2.1 WORK FROM A MOBILE PLATFORM OR STEPLADDER WITH TYPE 1 PLATFORM (ANSI or CSA) EQUIPPED WITH GUARDRAILS AND ACCESS HANDRAILS 2.2 WORK FROM A MAN BASKET, SCISSOR/BOOM LIFT 2.3 WORK FROM A SCAFFOLDING EQUIPPED WITH GUARDRAILS	I COMPLETE MY 360° RA THEN PERFORM THE JOB SAFELY
<b>LEVEL 3.1</b>	3.1 WORK DONE <4' ABOVE GROUND FROM A TYPE 1 STEPLADDER (ANSI or CSA) EQUIPPED WITH RAILS EXTENDING AT LEAST 36" ABOVE PLATFORM (WORK PROHIBITED FROM THE RUNGS)	I COMPLETE MY 360° RA THEN PERFORM THE JOB SAFELY (WORK PROHIBITED FROM THE RUNGS)
<b>LEVEL 3.2</b>	3.2 WORK DONE ≥4' ABOVE GROUND FROM A TYPE 1 PLATFORM (ANSI or CSA) WITHOUT HANDRAILS BUT EQUIPPED WITH A FULL PROTECTIVE GUARD AROUND PLATFORM	I COMPLETE MY 360° RA THEN PERFORM THE JOB SAFELY BY REVIEWING POSTED INSTRUCTIONS AND INSTALLING THEM ON THE EQUIPMENT (WORK PROHIBITED FROM THE RUNGS)
<b>LEVEL 3.3</b>	3.3 WORK DONE ≥ 4' ABOVE GROUND/FLOOR FROM A LADDER/STEPLADDER WITH MANDATORY FALL PROTECTION (HARNES + RETRACTOR) ATTACHED TO A FIXED OR PORTABLE ANCHOR POINT ACCESSIBLE FROM THE GROUND/FLOOR	I COMPLETE MY 360° RA THEN PERFORM THE JOB SAFELY WITH MY HARNES AND A RETRACTOR ATTACHED TO AN ANCHOR POINT FROM THE GROUND
<b>LEVEL 4.1</b>	4.1 ANY WORK DONE FROM A STEPLADDER OR PORTABLE LADDER WITHOUT GUARDRAILS OR FALL PROTECTION FOR UP TO 30 CONTINUOUS MINUTES MUST BE COVERED BY A MANDATORY « STEPLADDER/LADDER SAFE USE PERMIT » COMPLETED BY THE EMPOWERED EMPLOYEE DOING THE JOB (NO CONTINUOUS MONITORING REQUIRED)	MANDATORY « SAFE USE PERMIT » COMPLETED BY AN EMPOWERED EMPLOYEE
<b>LEVEL 4.2</b>	4.2 ANY WORK DONE FROM A STEPLADDER OR PORTABLE LADDER WITHOUT GUARDRAILS OR FALL PROTECTION FOR >30 CONTINUOUS MINUTES (BUT NO MORE THAN 1 HOUR) MUST BE COVERED BY A MANDATORY « STEPLADDER/LADDER SAFE USE PERMIT » ISSUED AND REVIEWED ON THE JOBSITE BY AN EMPOWERED SUPERVISOR OR HOURLY EMPLOYEE, BEFORE STARTING WORK	MANDATORY « SAFE USE PERMIT » COMPLETED BY AN EMPOWERED SUPERVISOR OR OTHER CO-WORKER



**IMMEDIATELY STOP WORK**

**STOP**

1	If a non-routine blockage/jam occurs	<b>STOP</b> and ask for help before continuing your task.
2	If the conditions are different from what was expected when completing the 360° RA	<b>STOP</b> , revise your 360° RA or ask for help.
3	If new risks are introduced or discovered during the task	<b>STOP</b> and review your analysis or ask for help.
4	If you do not have the right tool (includes parts and equipment) during the task	<b>STOP</b> and review your analysis or ask for help.
5	If the tool does not work or you have to use excessive physical force to operate the tool	<b>STOP</b> , revise your analysis/lines of fire or ask for help.
6	If you do not know how to perform the task safely	<b>STOP</b> and ask for help.
7	If you feel that you may need to take a shortcut in order to complete your task	<b>STOP</b> and ask for help before moving forward with the task.

Joint Approval (Please print) Permit Issuer and Permit Acceptor have joint responsibility for this permit identifying the current hazards.

Issuer: \_\_\_\_\_ Acceptor: \_\_\_\_\_ Permit Approved: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Time: \_\_\_\_\_

Notified Area Rep of Work  Reviewed with Task Performers

Task Performer Sign-In	Task Performer Sign-In	Task Performer Sign-In	Task Performer Sign-In
1 <input type="checkbox"/>	6 <input type="checkbox"/>	11 <input type="checkbox"/>	16 <input type="checkbox"/>
2 <input type="checkbox"/>	7 <input type="checkbox"/>	12 <input type="checkbox"/>	17 <input type="checkbox"/>
3 <input type="checkbox"/>	8 <input type="checkbox"/>	13 <input type="checkbox"/>	18 <input type="checkbox"/>
4 <input type="checkbox"/>	9 <input type="checkbox"/>	14 <input type="checkbox"/>	19 <input type="checkbox"/>
5 <input type="checkbox"/>	10 <input type="checkbox"/>	15 <input type="checkbox"/>	20 <input type="checkbox"/>

**EMERGENCY PHONE CONTACT 256.378.2222**

Joint Revalidation History	Date/Time	Issuer	Acceptor

Job Completion  Work Complete  Locks Removed  Insulation Blankets Installed  Guards Installed  
 Permits Closed  Tools Removed  Good Housekeeping of Work Area  NM(s) Reported

Issuer: \_\_\_\_\_ Date: \_\_\_\_\_ Acceptor: \_\_\_\_\_ Date: \_\_\_\_\_