

## **APPENDIX 'G'**

# **MANITOBA HYDRO JOB PLAN- ENGINEERING AND CONSTRUCTION**



**JOB PLAN - ENGINEERING & CONSTRUCTION**  
**Underground Construction - Winnipeg**

1. EMERGENCY RESPONSE PLAN		
<b>Identify exact location for emergency response:</b>	<b>Emergency phone numbers:</b> 911 204-360-HELP (4357) SCC: 204-474-3369, 204-474-3007, 204-474-3327 VHF: 040 Spill Response no./FSO: Jeff Breakey - 204-871-2003	Dispatch - Daytime - Local CSC After hours - Electric 204-360-2006 Radio #031 - Gas 204-360-2009 Radio #030 Blowing Gas - Wpg. 204-480-5900 Blowing Gas - Rural 1-888-624-9376
<b>How will you execute a rescue?</b>		

**INSTRUCTION: Prepare, discuss and review the job plan with the crew daily and whenever a change is introduced to the job.**

2.	CURRENT DATE	yyyymmdd	Project name	Work Order no.	Description		
	CSC and Radio Channel	Line or feeder	Blocked <input type="checkbox"/> Yes <input type="checkbox"/> No	Upstream protective device	Blocking received from	Time	Phone no.

3. HAZARD IDENTIFICATION LIST			
<b>1. Mechanical</b> 1.1 Equipment failure 1.2 Lifting with a boom 1.3 Max work loads 1.4 Vehicle stability 1.5 Moving parts/Sharp objects 1.6 Tension loads/Springs	<b>2. Electricity</b> 2.1 Live contact HV 2.2 Live contact LV 2.3 Induction/backfeed HV 2.4 Induction/backfeed LV 2.5 Static charge 2.6 Step potential 2.7 ARC Flash potential 2.8 Clothing ignition hazard/ FRC required 2.9 Lockout/Tagout	<b>3. Gravity</b> 3.1 Falling from a height 3.2 Falling objects 3.3 Falling structures 3.4 Rigging failure 3.5 Working over water	<b>4. Applicable</b> 4.1 Vehicular 4.2 Kenetic 4.3 Thermal 4.4 Chemical 4.5 Confined Space 4.6 Excavations 4.7 Vehicle or pedestrian traffic 4.8 Underground Utilities 4.9 Other, specify: 4.9.1 -----

<b>Hand contact:</b>	Incident energy -	ARC flash boundary -	ARC Flash PPE Level -
<b>Hot stick Work:</b>	Incident energy -	ARC flash boundary -	ARC Flash PPE Level -

4. JOB STEPS	MAJOR HAZARDS	REQUIRED BARRIERS	PPE: Minimum Hard Hat and Safety Footwear LIST ALL OTHER REQUIRED PPE including eyewear.	TIMES (LO/TO)
			FRC: <input type="checkbox"/> Yes <input type="checkbox"/> No	

<b>REVIEWED BY</b>	<b>DATE</b> yyyy mm dd

5. HAVE WE CONSIDERED (It is critical that we make note of any <b>changes</b> that may occur during the work cycle)				
<b>People</b> <input type="checkbox"/> Qualification of personnel <input type="checkbox"/> Other work groups/contractors <input type="checkbox"/> Effective Communication <input type="checkbox"/> Worker fatigue <input type="checkbox"/> Pedestrian control <input type="checkbox"/> General public <input type="checkbox"/> Traffic control <input type="checkbox"/> Safety watcher	<b>Procedures</b> <input type="checkbox"/> Limits of approach <input type="checkbox"/> De-energize/Isolation of apparatus <input type="checkbox"/> Safety hold off/Blocking required <input type="checkbox"/> Switching orders <input type="checkbox"/> Adequate cover-up <input type="checkbox"/> Grounding apparatus and vehicles <input type="checkbox"/> Work permit/Clearance to work <input type="checkbox"/> Permit checklists (soft dig, confined space, etc.) <input type="checkbox"/> Review rescue procedures <input type="checkbox"/> Spiking/Stethoscoping <input type="checkbox"/> Cut Hazards/Cut Resistant Gloves	<b>Hardware/Equipment</b> <input type="checkbox"/> Inspection of equipment <input type="checkbox"/> Inspection of tools & PPE <input type="checkbox"/> Inspection of vehicles <input type="checkbox"/> Condition of structures <input type="checkbox"/> Safe loads for rigging <input type="checkbox"/> Adequate cover-up <input type="checkbox"/> Specialized tools - calibrated/tested & up-to-date	<b>Environment</b> <input type="checkbox"/> Environment checklist <input type="checkbox"/> Underground locates <input type="checkbox"/> Weather conditions <input type="checkbox"/> Soil conditions/Shoring <input type="checkbox"/> Lighting conditions <input type="checkbox"/> Adjacent structures/Vegetation <input type="checkbox"/> Housekeeping <input type="checkbox"/> Emergency plan/procedure <input type="checkbox"/> Open excavations/Trench <input type="checkbox"/> Distractions and Interruptions	<b>Workers Affect on Environment</b> <input type="checkbox"/> Cause erosion <input type="checkbox"/> Release/spills (liquids/gases/solids) <input type="checkbox"/> Waste disposal (liquids/solids) <input type="checkbox"/> Noise <input type="checkbox"/> Fire <input type="checkbox"/> Species at risk (plant and animal) <input type="checkbox"/> Disturbing waterways/drainage/wetlands/burial grounds <input type="checkbox"/> Wildlife Habitat <input type="checkbox"/> Bio Security
WHAT ARE THE CHANGES?		HOW WILL THIS AFFECT YOUR WORK?		

6. HUMAN ERROR REDUCTION TOOLS (Consider which HER Tools you need to safely execute task or Critical Steps)		
<input type="checkbox"/> <b>Stop When Unsure / Know When to Stop</b> Stop when unclear on task / outcomes	<input type="checkbox"/> <b>Procedure Use and Adherence</b> Verify correct / accurate procedure	<input type="checkbox"/> <b>Self Check STAR</b> Stop / Think / Act / Review
<input type="checkbox"/> <b>Questioning Attitude</b> Identify confusion / doubt / uncertainty	<input type="checkbox"/> <b>Effective Communication</b> Send message / paraphrase back / acknowledge	

7. PERSONS WORKING ON THE JOB			
Designated person in charge (Print Name):		Crew cell no.:	
		Designated person in charge (Signature):	Date: yyyy mm dd
Print Full Names and classification of crew members:			
yyyy mm dd	Initial/Sign off for Tailboard Discussion		

8. OTHER CREWS AND VISITORS		Multi-crew job coordinator	Cell phone:
Be aware of <b>all</b> work crews in the area.			
WHAT OTHER CREWS ARE ON SITE	PERSON IN CHARGE	HOW WILL THEIR JOB AFFECT YOURS	

Any visitors to your site shall read and sign your Plan.

WORKSITE VISITOR SIGN OFF	DATE yyyy mm dd	WORKSITE VISITOR SIGN OFF	DATE yyyy mm dd