


SWM/RA # 1	Safe Work Method / Risk Assessment Providing a temporary isolation to pipe systems through the creation of freeze plugs using Liquid Nitrogen	Nitro Pipe Freeze Inc. June 2010	
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Equipment Required: <ul style="list-style-type: none"> • PPE • Eye protection • Gloves • Hand tools • Liquid Nitrogen tanks • Ladders / Platforms • Small torch 	Training required (if any) <ul style="list-style-type: none"> • Handling Liquid Nitrogen • Cutting • Lifting • Working at height • Hot works
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Task	A.Hazard	B. Likelihood Low, Moderate, High	Impact A+B	Current controls	Updated impact
Arrival at site	Unknown work conditions and hazards 2	Moderate 2	4	<ul style="list-style-type: none"> • Visually assess site conditions • Conduct an orientation / Site induction 	1
Unload tools and equipment to work area	Lifting strains, trips 2	Moderate 2	4	<ul style="list-style-type: none"> • Adequate provision of personnel • Use of portable dolly for moving equipment • Training in lifting techniques 	1
Create containment around pipe	Knife cuts, falls 3	Low 1	4	<ul style="list-style-type: none"> • Retract blade when not in use • Work at height training 	2
Handling Liquid Nitrogen	Frostbite, eye injury 3	Low 1	4	<ul style="list-style-type: none"> • Training in Liquid Nitrogen safe handling procedures • Wear approved eye protection 	1
Working with Liquid Nitrogen tanks	Lifting strains, Cold burns 2	Low 1	3	<ul style="list-style-type: none"> • Training in correct lifting and handling of tanks • Correct PPE • Restrict access below work area through tape and barrier erection where necessary 	1
Removal of containment unit from pipe	Cold burns from Liquid Nitrogen and/or pipe 2	Moderate 2	4	<ul style="list-style-type: none"> • Training in correct work procedures • Gloves to be worn for removal of containment and defrost of pipe 	1
Defrost freeze plug	Burns from torch 3	Low 1	4	<ul style="list-style-type: none"> • Gloves • Small auto shut-off safety torch • Torch use training 	1
Clear work area and load tools and equipment off site	Lifting strains, trips 2	Moderate 2	4	<ul style="list-style-type: none"> • Adequate provision of personnel • Use of portable dolly for moving equipment • Training in lifting techniques 	1

A.Hazard	B.likelihood	Impact A+B	Action
1- Minor	1- Low / Rarely	1-2 = Low Risk	Proceed with caution
2- Moderate	2- Moderate / Occasional	3-4 = Moderate Risk	Regularly monitor
3- Serious	3- High / Frequent	5-6 = High / Extreme Risk	Do not proceed