

General Site Activity: Controlled Modulus Columns		Project: Wrexham
Specific Activity: CMC		

No	Hazard	Risk Description	Inherent Risk			Controls			Residual Risk			Notes				
			S	P	R				S	P	R					
1	Installing CMCs on the ground and below water table level	CMC not being formed properly and thus not being able to perform as per design	5	1	5	- Concrete pressure is checked by the rig operator with the on-board rig computer to ensure that when extracting the CMC tool, the hole formed when drilling is filled with the required volume of concrete - Checking of data records by contracts manager to double check the works done on site			1	1	1	Any unusual situation is reported from site to contracts manager and design department, stop and wait for new instructions. All is reported to the Main Contractor				
Name													Position			Date
Prepared	David Rickson		Contracts Manager						19/09/2014							
Checked	Gabriel Portillo		Chief Engineer						19/09/2014							
Authorised	Marc Evans		Business Unit Manager						19/09/2014							

S - Severity P - Probability R - Risk Rating

Risk Scoring

The table below provides a matrix linking the Probability or Likelihood of harm occurring and the potential or severity of that harm. The evaluation scores, based upon the allocation of numerical values for these two matters, are calculated in order to provide a risk value or score.

Risk Scoring Matrix		Probability of Occurrence				
		1	2	3	4	5
Severity of Hazard	1	1	2	3	4	5
	2	2	4	6	8	10
	3	3	6	9	12	15
	4	4	8	12	16	20
	5	5	10	15	20	25

Risk Ranking

Utilising resultant risk values or scores, risk can be appropriately ranked in order to determine mitigation or process requirements.

Risk Ranking Table		
Risk Score	Mitigation Requirements	
	Low	Suitable attention to working procedures
	Medium	Corrective actions, improvement and control measures
	High	Elimination or reduction strategies

Hazard Severity

Once identified, the **severity** of the hazard or **potential** for harm should be evaluated utilising the table provided below.

Severity Evaluation		
Severity Score	Severity Level	Description
1	Insignificant	First aid injury, slight property damage with minimal cost that is unlikely to impact upon works, insignificant environmental impact contained within site
2	Minor	Short term illness, lost time accident, minor damage to property involving minimal down time, minor environmental impact with no lasting effect
3	Serious	Instance of occupational ill health, over 3 day injury, localised damage to property, environment impact with possible public or media exposure
4	Critical/Severe/Major	Major injury or acute ill health, significant damage to property, major environmental impact involving potential prosecution
5	Catastrophic	Fatality, environmental disaster, collapse or destruction of property

Hazard Probability

The probability or likelihood of the hazard occurring should be evaluated using the applicable table provided below.

Probability Evaluation		
Score	General	
1	Improbable	Unlikely
2	Remote	Rare
3	Occasional	Irregular
4	Probable	Likely
5	Frequent	Regular
Score	Construction Operations	
1	Improbable	Less than once every 10,000 cycles/similar operations
2	Remote	1,000 to 10,000 cycles/similar operations
3	Occasional	100 to 1,000 cycles/similar operations
4	Probable	10 to 100 cycles/similar operations
5	Frequent	1 to 10 cycles/similar operations
Score	Tunnelling	
1	Improbable	Less than one every 100,000 metres
2	Remote	10,000 to 100,000 metres
3	Occasional	1000 to 10,000 metres
4	Probable	100 to 1000 metres
5	Frequent	0 to 100 metres
Score	Railway Systems	
1	Improbable	Less than 100 years
2	Remote	10 to 100 years
3	Occasional	1 to 10 years
4	Probable	Monthly to annually
	Frequent	Daily to monthly