

GENERAL RISK ASSESSMENT

New Risk Assessment Reference (EHS use only)

BR-RA -067


To be completed by EHS

Supersedes

BRA-RA-063

Superseded / Obsoleted by


Section 1: Assessment Detail and Scope - to be completed by risk assessor(s)

| | | | | |
|--|---|---|--|--------------------|
| Title of Risk assessment | 3M Young Innovators Mighty Monument Challenge 2020 (supersedes BR-RA-063) | | BR-RA-063 Date Completed | 15/10/2019 |
| Value Stream/Department | Corporate Communications Department | Location | 3M Bracknell | Room Number |
| Author of Risk assessment – Author must be on the training matrix | Print JULIE OWEN | Sign  | Position Communications and visual identity manager | |
| Risk Assessment Team | Print | Sign | Position | |
| Risk assessment Team | Print | Sign | Position | |
| Scope of assessment - Summarise In/Out scope Include Tasks and Materials used | Risk Assessment to cover teacher-accompanied primary school visits to 3M Centre in 2020 for judging of Mighty Monument Challenge, part of the 2020 3M Young Innovators Challenge competition. | | | |
| Equipment assessed List all equipment included in the assessment | Free standing monument prepared off site by students, metal weight sets, digital weighing scales, padded foam mats, 3M laptop and multimedia projector for presentations. | | | |

Section 2: Conclusion - Summarise overall risk associated with task(s) and highlight significant risks that remain and require attention.

The activity presents a low level of risk to students, teachers and judges participating in the Mighty Monument Challenge. The supervision provided by both 3M and the respective school staff is sufficient to support students attending the judging at 3M Centre .

Section 3: Approvals – The manager/nominated deputy of the department must review the completed risk assessment to ensure all hazards have been assessed and select the appropriate statement from below

| | | |
|--------------------------------------|--|---|
| Acceptable | I accept the conclusions of this assessment and agree that the level of risk acceptable without further action. | Print/Sign/Date |
| Acceptable with action plan | I accept the conclusions of this assessment and agree that the level of risk should be reduced further. All resulting actions must be completed within the next month / 3 months/ 6 months/ 12 months. | Print/Sign/Date John Klee  15/10/2019 |
| Unacceptable with action plan | I accept the conclusions of this assessment and agree that the level of risk is unsatisfactory and that the specified activities will cease until further action has been taken. | Print/Sign/Date |



EHS department

The risk assessment has been reviewed to ensure all sections have been completed and signed where required.

Print/Sign/Date Sarah Broadbent (EHS) 21/10/19

Section 4: General Risk Assessment Hazards

In the first column - Use this list to ensure that you consider all foreseeable hazards within the General risk assessment

In the second column – Can the hazard be **Elimination (E)** and/or **Substituted (S)** answer next to the hazard in this section. If **Yes** Complete **Section 6**

| Hazardous Agents | Haz | E or S | General Workplace Issues | Haz | E or S | General Workplace Issues | Haz | E or S |
|--|-----|--------|---|-----|--------|--|------------|---------------|
| 1. Hazardous substances – Toxic | | | 21. Access/Exit | X | | 41. Slips, Trips & Falls | X | |
| 2. Hazardous substances - Corrosive | | | 22. Traffic routes | X | | 42. Static ³ | | |
| 3. Hazardous substances – Irritant | | | 23. Housekeeping | X | | 43. Dust – Explosion ³ | | |
| 4. Hazardous substances - Harmful | | | 24. Lighting | | | 44. Vapour – Explosion ³ | | |
| 5. Hazardous substances – Dermatitic | | | 25. Fire | X | | 45. Gas – Explosion ³ | | |
| 6. Hazardous substances - Sensitiser | | | 26. Means of Escape | X | | 46. FLT Battery charging – explosive gases | | |
| 7. Hazardous substances - Carcinogenic | | | 27. Lone Working | | | 47. Cleaning of Equipment | | |
| 8. Hazardous substances - Mutagenic | | | 28. Electricity | X | | 48. Maintenance Interaction | | |
| 9. Hazardous Substances – Flammable ³ | | | 29. Confined Space | | | 49. Equipment Interaction / Troubleshooting | | |
| 10. Hazardous Substances – Oxidising ³ | | | 30. Restricted / limited working spaces | | | 50. Other (Please specify) | | |
| 11. Hazardous Substances – Explosive ³ | | | 31. Open Flame / Hot Works | | | Manual Handling & Ergonomic Factors | Haz | E or S |
| 12. Hazardous Substances - Asbestos | | | 32. Work at height | | | 51. Display Screen Equipment (DSE) | X | |
| 13. Hazardous Substances - Asphyxiant | | | 33. Glazing/Glass ¹ | | | 52. Manual handling / Material Movement | | |
| 14. Biological agents | | | 34. Equipment / Machinery | | | 53. Manual Handling - Lift or carry > 25 kg ² | | |
| 15. Noise | | | 35. Nips and Traps | | | 54. Manual Handling - Push / Pull > 29.5 kg ² | | |
| 16. Vibration | | | 36. Lifting Equipment ⁴ | | | 55. Repetition of Joints: Wrists: / 5000 counts ² | | |
| 17. Ionising radiation | | | 37. Hand tools / Power tools | | | 56. Repetition of Joints: Elbow / 3000 counts ² | | |
| 18. Non-Ionising radiation | | | 38. Use of Blades | | | 57. Repetition of Joints: Shoulder / 900 counts ² | | |
| 19. Extremes of temperature – Hot/Cold | | | 39. Pressure systems ⁴ | | | 58. Repetition of Joints: Neck / 6500 counts ² | | |
| 20. Storage/Handling/Transport of dangerous substances | | | 40. Compressed Gas | | | 59. Stretching / over reaching | | |



Note:

¹ Specific guidance related to Glazing/Glass is available V:\EHS\EHS document templates\Risk Assessment\2 Standard risk assessments\Glazing guidance, read this guidance prior to considering element 33 in above check-list.

² Where this has been indicated as a risk, a more detailed "Ergonomic High Risk Survey" (HRS) may be required.

³ Where this has been indicated as a risk, a more detailed "Dangerous Substances and Explosive Atmosphere Regulations" (DSEAR) risk assessment may be required by an external provider, complete Section 9 to gather appropriate information.

⁴ Where pressure system or lifting equipment has been identified, ensure these systems are registered with Plant Engineering within Legal Document (LD) Files.

Section 5: Environmental Risk Assessment Hazards

In the second column – Can the hazard be **Elimination (E)** and/or **Substituted (S)** answer next to the hazard in this section. If **Yes** Complete **Section 6**

| Environmental Factors | Haz | E or S | | Haz | E or S | | Haz | E or S |
|-------------------------------------|-----|--------|------------------------------------|-----|--------|--|-----|--------|
| 60. Environmental pollution - Air | | | 66. Waste disposal - Gas | | | 72. Spillages | | |
| 61. Environmental pollution - Land | | | 67. Waste disposal - Hazardous | | | 73. Resource consumption – Electricity | | |
| 62. Environmental pollution - Water | | | 68. Waste disposal – Non-Hazardous | | | 74. Resource consumption – Gas | | |
| 63. Environmental pollution - Noise | | | 69. Waste disposal - Flammable | | | 75. Resource consumption – Water | | |
| 64. Waste disposal - Solid | | | 70. Waste disposal - Clinical | | | 76. Other (Please specify) | | |
| 65. Waste disposal - Liquid | | | 71. Waste disposal - Recyclable | | | | | |

Section 6: Hazard Elimination and / or Substitution of Hazards

Where hazards have been identified via the checklists in Sections 4 & 5 and eliminated or substituted can be implemented, complete the below table and include actions in Section 10

| Hazards Identified | Elimination or Substitution (E/S) | Reasoning | Actions Required |
|--------------------------|-----------------------------------|--|------------------|
| 21. Building Access/Exit | No | Required to enable students and visitors to attend site for judging session. Risks have been suitably assessed and acceptable control measures put in place. | No |
| 22. Traffic Routes | No | Required to enable students and visitors to attend site for judging session. Risks have been suitably assessed and acceptable control measures put in place. | No |
| 23. Housekeeping | No | Required to enable students and visitors to attend site for judging session. Risks have been suitably assessed and acceptable control measures put in place. | No |
| 25. Fire | No | Required to enable students and visitors to attend site for judging session. Risks have been suitably assessed and acceptable control measures put in place. | No |



| | | | |
|------------------------------|----|--|----|
| 28. Electricity | No | Required to enable students and visitors to attend site for judging session. Risks have been suitably assessed and acceptable control measures put in place. | No |
| 42. Slips, Trips and Falls | No | Required to enable students and visitors to attend site for judging session. Risks have been suitably assessed and acceptable control measures put in place. | No |
| 48. Display Screen Equipment | No | Required to enable students and visitors to attend site for judging session. Risks have been suitably assessed and acceptable control measures put in place. | No |
| | | | |
| | | | |

Section 7: Classification of Risk

Indicate how the Risk Level Score has been derived (P x F x C)

| Probability Of Control (P) | | Frequency Of Exposure (F) | | Consequence Severity (C) | | Risk Level Score | |
|---|--|---|--|---|---|---------------------------------------|--|
| What is the likelihood of existing controls not working as intended? (Safeguards / LOP) Consider the effectiveness of the controls. | | How often or how long does personnel exposure to the hazard occur? Choose the factor of "1" if personnel exposure is not applicable. | | If a control does not work as intended, what is the most likely consequence? Consider the effectiveness of the controls. | | P x F x C | |
| Risk Rating | | Risk Rating | | Risk Rating | | Risk Level Score | |
| 0.5 | Highly Effective: Hazard no longer exists, it has been eliminated | 1 | Very rare: Occurrence no more than once per year or is not applicable | 1 | Near Miss: No injury, no pain, no damage | 0 to 11 (Level I Risk) | Low Where reasonably practicable control measures should be introduced to reduce the risk. |
| 1 | Effective: Highly effective safeguards & controls, multiple engineering controls & multiple administrative controls | 1.5 | Rare: Occurrence likely 2 to 11 times per year | 3 | Minor: Minor Injury, no long term effects, minor damage to equipment | 12 to 80 (Level II Risk) | |
| 2 | Somewhat Effective: Somewhat effective safeguards & controls, minimal engineering controls & some administrative controls | 2 | Unusual: Occurrence likely at least once per month | 7 | Moderate: 3M Recordable Injury / Damage to equipment | 81 to 160 (Level III Risk) | Moderate Control measures will be required and must be implemented. |
| 4 | Somewhat Ineffective: Somewhat ineffective safeguards & controls, engineering controls do not function | 3 | Occasional: Occurrence likely at least once per week | 15 | Serious: Loss time work injury / Irreversible damage to equipment | 161 to 600 (Level IV Risk) | |



| | | | | | | | |
|---|--|---|---|-----|--|--|--|
| | adequately & minimal administrative controls | | | | | | |
| 6 | Ineffective: Engineering controls do not exist & inadequate administrative controls | 4 | Daily: Occurrence likely at least once per day | 40 | Severe: Long Term Absence / Significant Investment Loss | 601 to 1600 (Level V Risk) | High Immediate action must be taken to reduce the risk. The task must not continue until control measures have been implemented. |
| 8 | Highly Ineffective: Engineering Controls do not exist & administrative controls are missing or not followed | 6 | Repetitive: Occurrence frequently throughout the shift | 100 | Catastrophic: Death / Business Interruption | 1601 to 4800 (Level VI Risk) | |

Section 8 : Evaluate risks and determine whether further actions are required

Refer to Standard Operating Procedure LBSOP-07-000218 for guidance on aspects to consider for a suitable and sufficient assessment of risk

| What are the hazards? | Who might be harmed and how? | What control measures are already in place? | Risk High/Medium/Low (See section 7 – Classification of risk) | | | | Further action(s) (add actions to section 10) | Residual Risk (on completion of action, section 10) |
|-----------------------|--|--|---|---|----|------|--|--|
| | | | P | F | C | Risk | (Yes/No) | Acceptable/Not acceptable |
| 21. Access/Exit | School students exiting site unsupervised, leading to accident or abduction risk | Building access controlled by 3m Centre Security, manned at all times. Students to be accompanied by teaching staff and/or designated 3M employees at all times. Security and 3M Reception staff advised of school visit and names in advance. | 1 | 1 | 40 | 40 | No | Acceptable |
| 21. Access / Exit | School students entering site unsupervised and becoming lost, causing stress and anxiety | Building access controlled by 3M Centre Security, manned at all times. Students to be accompanied by teaching staff and/or designated 3M employees at all times. Security and 3M Reception staff advised of school visit and names in advance. | 1 | 1 | 15 | 15 | No | Acceptable |
| 22. Traffic Routes | School students, teachers and judges in collision with moving vehicle in car park | Teachers instructed to park in visitor car park spaces. Children to be accompanied by teaching staff at all times. Pedestrian walkways /level pavements around perimeter of car | 1 | 1 | 15 | 15 | No | Acceptable |



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| What are the hazards? | Who might be harmed and how? | What control measures are already in place? | Risk High/Medium/Low <i>(See section 7 – Classification of risk)</i> | | | | Further action(s) <i>(add actions to section 10)</i> | Residual Risk <i>(on completion of action, section 10)</i> |
|----------------------------|---|--|--|---|----|------|---|---|
| | | | P | F | C | Risk | (Yes/No) | <i>Acceptable/Not acceptable</i> |
| | | park and designated walkway to building entrance. | | | | | | |
| 23. Housekeeping | School students – access / egress issues. Bumps and bruises from CLIP exhibition panels falling over. | Main walkways and fire exits to be kept clear. Good housekeeping to be practised in meeting rooms and communal areas. Students to be accompanied by teaching staff and/or designated 3M employees at all times. | 1 | 1 | 3 | 7 | No | Acceptable |
| 25. Fire | School students, teachers and judges trapped in burning building or overcome by smoke inhalation | Regular fire alarm testing in operation (weekly.) Fire evacuation and exit routes clearly marked. Fire extinguishers and fire call points located at regular intervals throughout the building. Visitors assembly point assigned in external car park. Designated 3M employees to accompany students, teachers and judges on building evacuation. Names provided to Reception staff in advance for roll call purposes. | 1 | 1 | 40 | 40 | No | Acceptable |
| 26. Means of Escape | School students, teachers and judges trapped in building | Emergency escape routes clearly defined. Designated 3M employees to accompany students, teachers and judges. | 1 | 1 | 40 | 40 | No | Acceptable |
| 28. Electricity | School students, electrocution | All electrical equipment PAT tested. Designated 3M employees and teaching staff to supervise use of computer equipment. | 1 | 1 | 40 | 40 | No | Acceptable |
| 42. Slips, Trips and Falls | School students, teachers and judges tripping over | Floors maintained in good condition. First Aid room and First Aiders available on site. Designated 3M | 1 | 1 | 3 | 7 | No | Acceptable |



Section 8 : Evaluate risks and determine whether further actions are required

Refer to Standard Operating Procedure LBSOP-07-000218 for guidance on aspects to consider for a suitable and sufficient assessment of risk

| What are the hazards? | Who might be harmed and how? | What control measures are already in place? | Risk High/Medium/Low <i>(See section 7 – Classification of risk)</i> | | | | Further action(s) <i>(add actions to section 10)</i> (Yes/No) | Residual Risk <i>(on completion of action, section 10)</i> Acceptable/Not acceptable |
|---|---|---|--|---|----|------|---|---|
| | | | P | F | C | Risk | | |
| | | employees to accompany students, teachers and judges. | | | | | | |
| 48. Use of Display Screen Equipment | School students, eye strain or repetitive strain from use of laptop and mouse | Equipment used for minimal time period. Designated 3M employees and teaching staff to supervise use of computer equipment | 1 | 2 | 3 | 7 | No | Acceptable |
| Additional hazards | | | | | | | | |
| Static models | School students and judges, injury by static monument structure, such as finger cut from sharp edge | Demonstration of model to be supervised by judges and accompanying teachers. Judges asked to wear protective gloves when examining and testing the structure. First Aid room and First Aiders available on site. | 1 | 2 | 3 | 7 | No | Acceptable |
| Refreshments (juice, and biscuits) provided by 3M | School students with food allergies (nut, dairy, eggs, gluten) leading to anaphylaxis | Teachers advised in pre-judging briefing that juice and biscuits will be available for students after the judging. Teachers to check food allergy status of students in advance and identify any students who have a food allergy/ies of any kind. 3M to request caterers produce a notice identifying components of biscuits and juice and to provide nut free and gluten free varieties of biscuits. Teachers to ensure relevant students do not consume food or drink which may cause an allergic reaction. First Aid room and First Aiders available on site. | 1 | 1 | 40 | 40 | No | Acceptable |



Section 8 : Evaluate risks and determine whether further actions are required

Refer to Standard Operating Procedure LBSOP-07-000218 for guidance on aspects to consider for a suitable and sufficient assessment of risk

| What are the hazards? | Who might be harmed and how? | What control measures are already in place? | Risk High/Medium/Low <i>(See section 7 – Classification of risk)</i> | | | | Further action(s) <i>(add actions to section 10)</i> | Residual Risk <i>(on completion of action, section 10)</i> |
|-------------------------|---|---|--|---|---|------|---|---|
| | | | P | F | C | Risk | (Yes/No) | <i>Acceptable/Not acceptable</i> |
| Weight Testing of Model | Judges and school students – foot injury caused by falling metal weights, eye injury caused by metal weight rebounding on floor. Judges hand or eye injury caused by structure breaking revealing sharp edges or projecting material | School students to be supervised by 3M employees and teachers at all times. Judges and 3M employees to operate digital weighing scales. Students to be kept a safe distance from monument during weight testing. Judges instructed to wear safety shoes to prevent foot injury, safety glasses and protective gloves to prevent hand or eye injury. Padded foam mat to be placed on floor around tower to prevent rebounding of metal weights. | 1 | 2 | 3 | 7 | No | Acceptable |
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Section 9 : Consider Flammable Materials Used / DSEAR Considerations

Please complete this table to support external DSEAR Assessment

| List Flammable or Explosive Materials Handled / Used in Process <i>Consider dusts, liquids, gases & vapours</i> | List Processes / Products Used in | List Quantities Handled | Describe Handling Activities <i>Include set-up, operation, cleaning & maintenance</i> |
|---|--|--------------------------------|---|
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Section 10: Action Tracker

High Immediate action required: Legislative/Corporate compliance. Task not to be continued until control measures have been implemented.

Medium Action required: Legislative/Corporate compliance. Control measure must be implemented and controlled.

Low Action required: Considered as good practice. Where reasonably practicable, control measures should be introduced to reduce the risk.

| Action description | | Please ensure that actions and associated timelines have been agreed by the action owner | |
|--------------------|--|--|---------------------------------------|
| | | Completion date(s) | Owner details |
| Risk M | Management of event: Ensure 3M Reception staff are briefed on visit and names of students, teachers and judges are provided in advance. Ensure Reception and Security staff know names of designated 3M employees supervising the visit. | Estimated 20/4/2020 | Owner(Print/Sign) John Klee |
| | | Actual | Owner(Print/Sign) |

Append evidence of completion to this form and record any relevant comments in this section.

| Action description | | Please ensure that actions and associated timelines have been agreed by the action owner | |
|--------------------|---|--|---------------------------------------|
| | | Completion date(s) | Owner details |
| Risk L | PPE: Ensure judges instructed to wear safety shoes, safety glasses and protective gloves when testing models and protective foam mats are correctly positioned on the floor surrounding the testing area. | Estimated 24/04/2020 | Owner(Print/Sign) John Klee |
| | | Actual | Owner(Print/Sign) |

Append evidence of completion to this form and record any relevant comments in this section.

| Action description | | Please ensure that actions and associated timelines have been agreed by the action owner | |
|---------------------|--|--|--------------------------|
| | | Completion date(s) | Owner details |
| Risk (H,M,L) | | Estimated | Owner(Print/Sign) |
| | | Actual | Owner(Print/Sign) |

Append evidence of completion to this form and record any relevant comments in this section.

