

Melanie Cairns

P.Eng., CFEI



P.O. Box 50057
Rivergrove PO
Winnipeg, MB R2V 1M5

EDUCATION

Bachelor of Engineering, Lakehead University (2019)
Diploma in Electrical Engineering Technology, Lakehead University (2018)

CERTIFICATION

Professional Engineer (P.Eng.)
Certified Fire and Explosion Investigator (CFEI)

PROFESSIONAL REGISTRATIONS

Engineers Geoscientists Manitoba (EGM)
Institute of Electrical and Electronics Engineers (IEEE)

TECHNICAL ASSOCIATIONS

Canadian Association of Fire Investigators (CAFI)
National Association of Fire Investigators (NAFI)

PROFESSIONAL EXPERIENCE

Melanie is a Forensic Engineer and a Certified Fire and Explosion Investigator. She has an Engineering Degree and a Diploma in Electrical Engineering Technology from Lakehead University. She has comprehensive knowledge of electrical systems, appliances and electronics. Her professional experience includes conducting fire scene investigations, failure analyses, and equipment examinations. Melanie has attended and investigated over 600 fire scene investigations and evidence examinations. She is a member of the National Association of Fire Investigators (NAFI).

June 2019 to Present

Forensic Engineer, **Origin and Cause Inc.**
Winnipeg, Manitoba

- Attended fire investigations for scene examination, documentation, and evidence collection
- Forensic investigations including research, failure analysis and reporting for evidence examinations

2016 to 2018 (April to September)

Engineering Assistant/Technical Support, **Manitoba Hydro**
Winnipeg, Manitoba

- Reviewed engineering documents and reports
- Scheduled meetings, attended meetings, took meeting notes
- Extracted data from Lotus Notes and SharePoint for analysis
- Contributed to monthly/annual project cost analysis in Excel
- Built and maintained multiple project and process documentation in a SharePoint Wiki for teams and Project Managers to refer to
- Maintained and designed SharePoint sites and pages for multiple projects
- Established working relationships with all departments
- Collaborated with Project Managers and teams to create and update project schedules in Primavera
- Contributed to monthly reports and provided analytic reports to Department Managers, e.g. cost, project processes, scheduling
- Provided technical and administrative support
- Assisted in a tendering process with contractors
- Participated in site visits and assessed health and safety precautions on construction sites

April 2015 to September 2015

Technical Support Summer Student, **Manitoba Hydro**

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Winnipeg, Manitoba

- Worked independently as well as in a team environment to create an estimate database tool using Excel
- Scheduled and attended meetings, created a project charter, Gantt chart and project completion report for supervisor
- Checked AutoCAD drawings for corrections

FURTHER TRAINING AND EDUCATION

- CFI Online Courses (acknowledged by IAAI)
 - Critical Evaluation and Testing of Commonly Reported Accidental Causes
 - Arc Mapping Basics
 - Basic Electricity
 - Electrical Safety
 - Fire Investigations for Fire Officers
 - How First Responders Impact the Fire Investigation
- Working at Heights, Winnipeg MB, November 2019
- NFPA 921 Course, Mississauga ON, November 2019