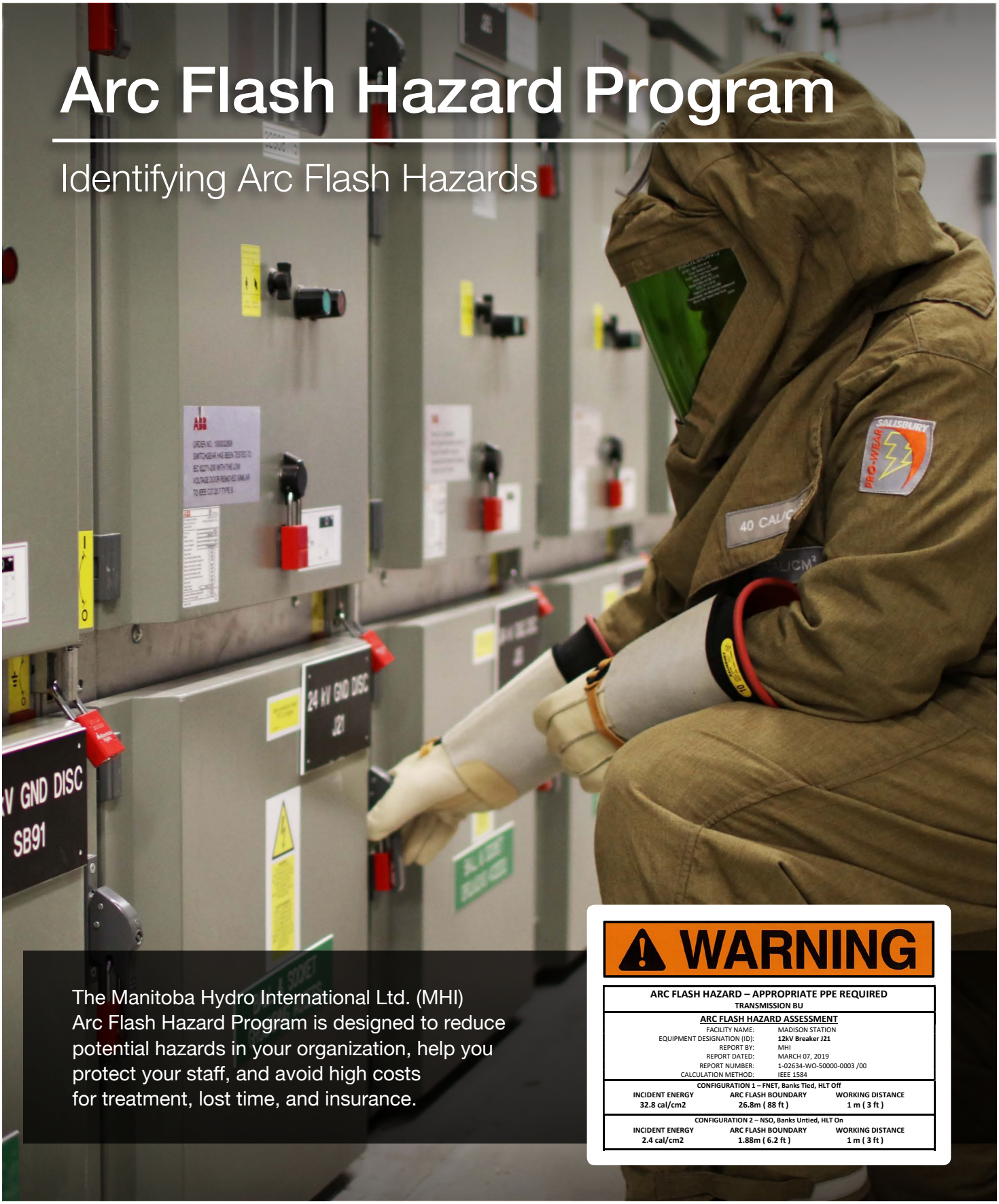
Arc Flash Hazard Program

Identifying Arc Flash Hazards



The Manitoba Hydro International Ltd. (MHI) Arc Flash Hazard Program is designed to reduce potential hazards in your organization, help you protect your staff, and avoid high costs for treatment, lost time, and insurance.

WARNING

ARC FLASH HAZARD – APPROPRIATE PPE REQUIRED
TRANSMISSION BU

ARC FLASH HAZARD ASSESSMENT

FACILITY NAME:	MADISON STATION
EQUIPMENT DESIGNATION (ID):	**12kV Breaker J21**
REPORT BY:	MHI
REPORT DATED:	MARCH 07, 2019
REPORT NUMBER:	1-02634-WO-50000-0003 /00
CALCULATION METHOD:	IEEE 1584

CONFIGURATION 1 – FNET, Banks Tied, HLT Off

INCIDENT ENERGY	ARC FLASH BOUNDARY	WORKING DISTANCE
32.8 cal/cm2	**26.8m (88 ft)**	**1 m (3 ft)**

CONFIGURATION 2 – NSO, Banks Untied, HLT On

INCIDENT ENERGY	ARC FLASH BOUNDARY	WORKING DISTANCE
2.4 cal/cm2	**1.88m (6.2 ft)**	**1 m (3 ft)**

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What is an Arc Flash Hazard?

In a fraction of a second, an arc flash can release massive amounts of energy in the form of heat, light, plasma, and pressure waves. For unprotected electrical workers, this event can result in severe burns, vision and hearing loss, and possible fatality.

Our Program Includes:

- Identifying equipment with a potential risk of personnel injury;
- Establishing arc flash boundary (approach limit distance) to meet regulations;
- Determining optimal personal protective equipment (PPE) requirement;
- Optimizing the cost of protective equipment inventory;
- Potentially reducing insurance costs through discounts and credits;
- Performing equipment coordination to improve protection and reduce incident energy;
- Performing device evaluation studies to ensure interrupting devices can safely withstand a short circuit;
- Updating single line diagrams for your facility.

Our Proven Experience

As a trusted industry leader in power system studies, we retain a world-renowned team of highly qualified and talented professionals. We have proven experience in a broad range of services, including:

- Developing, implementing, and monitoring a comprehensive arc flash safety program for a large utility;
- Performing arc flash studies for stations, utilities, and other facilities;
- Performing electrical safety audits covering NFPA 70E, CSA Z462;
- Conducting engineering design reviews to recommend measures for reducing short circuit level and incident energy;
- Providing training to improve safety and reduce risk to personnel;
- Providing training to technical staff who maintain safety and in-house programs.

Benefits Include:

- Meeting government regulations;
- Establishing due diligence, should an employee be injured;
- Ensuring adequate equipment ratings;
- Reducing risk with your enhanced safety program;
- Assuring good corporate and industry practice.

Mindful of reducing your implementation and operational costs, we will help you develop an innovative and efficient arc flash hazard program specifically suited to your needs. For more information, contact our Arc Flash team at arcflash@mhi.ca

mhi.ca

Available in accessible formats upon request.

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