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Requirements for Performing Fire Protection System Work

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History of Changes

Release Number	Date	Description of Changes	Author(s)
#	2017-12-08	Initial Release	E. Chapman

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1. Acronyms

DFSD Deputy Fire Safety Director
FAS Fire Alarm System
FC Facility Coordinator
FPS Fire Protection System
FSD Fire Safety Director
FSS Fire Suppression System
NEW Nuclear Energy Worker
RCA Radio Chemistry Annex
TSN TRIUMF Safety Note
TSOP TRIUMF Standard Operating Procedures
VF&RS Vancouver Fire and Rescue Services
WP Work Permit

2. References

[TRIUMF Fire Protection Program](#)
[TSOP 8 - Calibration and testing](#)
[TSOP 10 – Access to TRIUMF](#)
[TSN 3.7 – Work Permit System](#)
[Accelerators Division FCs](#)
[Physical Sciences FCs](#)
[Business and Administration Division Facility Coordinators](#)

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3. Purpose and Scope

3.1. Purpose

The purpose of this document is to provide instruction for safe and efficient work on the TRIUMF Fire Protection System (FPS)

The FPS comprises:

- The Fire Alarm System (FAS)
- The Fire Suppression Systems (FSS) (hydrants, sprinklers, Fire extinguishers, hoses, grill suppression etc.)
- The FAS Monitoring System (Monitoring)

3.2. Scope

This document provides the requirements and the template for scheduling any FPS work including routine testing, calibration, repairs, replacement, new installation, etc.).

4. Definitions

TRIUMF escort: TRIUMF employee required to accompany an outside contractor during work in specified areas (must be a NEW for all exclusion areas)

TRIUMF contact: any TRIUMF or NORDION employee of at least six months standing

5. Primary contacts for FPS work are:

- Fire Safety Director (FSD), Head of Occupational Health and Safety
- Deputy Fire Safety Director (DFSD), Alternate to the FSD
- Group Leader, Building Services (Fire Suppression System)
- Group Leader Electrical Services (Fire Alarm System)
- On-duty Driver Operators responsible for daily operations of FPS, including communication with monitoring company and VF&RS

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6. TRIUMF FPS Work Requirements

Work on the FPS may be performed by UBC Operations (plumbers), TRIUMF Electricians and by outside contractors. This work may require access to the entire TRIUMF site including labs, hazardous materials storage and exclusion areas, clean rooms, etc. A TRIUMF escort might be needed to access all or certain areas.

6.1. Coordination

FPS work coordination is based on mutual agreement between:

- Driver Operations
- the Operations group responsible for the area where work is to be performed
- the work area FCs¹
- Outside Contractor performing work

6.2. Scheduling

- Outside Contractor ², to provide a time frame for the work to be done
- FSD (or alternate) to work with each Operations groups and FCs to produce a final schedule
- FSD (or alternate) to communicate final schedule to relevant Operations groups, FCs and outside contractor

NOTE: If a contractor shows up unscheduled, at the discretion of FC and/or Operations group affected, the contractor shall be asked to leave and come back at a mutually convenient time.

6.3. Schedule Approvers

The FPS work schedule approvers are:

- the Facility Coordinators of the affected areas
- the Operations group of the area the work will take place in
- the Driver Operations group

¹ To identify the FCs please refer to:

- Accelerator Division Facility Coordinators: [Document-19738](#)
- Physical Sciences Division Facility Coordinators: [Document-19739](#)
- Business and Administration Division Facility Coordinators: [Document-19740](#)

² This requirement to be communicated to outside contractor by the TRIUMF employee who contacts the contractor (usually FSD or FSD alternate)

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6.4. Work Permits

- Any work on the FPS requires an active Driver Operations Work Permit (WP).³
- Additional WPs are required for access to exclusion areas in ISAC, ARIEL, E-hall and ATG/NORDION

6.5. Defeats

- Any work that has the potential to affect the FPS requires an active Driver Operations Defeat

6.6. Outside Contractors

- Outside Contractors may be unescorted within the fence provided they have completed required orientation training and have been granted a site access card and dosimetry.
- A TRIUMF employee with NEW status, must accompany the outside contractors in exclusion areas at all times.
- A TRIUMF employee must accompany outside contractors into clean rooms, laser labs and other areas as per respective Operations and/or Facility Coordinator instructions.

6.7. Annunciation

Any work on the FPS which is likely to activate any alarm annunciation systems (Bells/Strobes/Panels etc.) must be announced in advance. Written signs must be posted with the following information:

- date and time when the work will start
- date and time the work is expected to be finished
- areas which will be affected
- Main Control room contact number 7333 for further info
- date the sign was posted
- group/person who posted the information

NOTE: Signs to be posted at all Facility entrances (as per VF&RS requirements)

³ Driver Operations group is responsible for daily operation of the FPS, including communication with the Vancouver Fire Department and FAS monitoring company

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7. Appendix

7.1. Site Maps and System Addresses

[TRIUMF FAS Zone and Node Map](#)

[TRIUMF Fire Alarm System Addresses and Cross Reference](#)

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7.2. Suggested Schedule Template for FPS Work

NOTE: FPS Work Schedule must include work type: Detection System, Suppression System, Monitoring System

The schedule should also indicate which types of systems are present (Detection only or Detection and Suppression). In addition, WP & Defeat numbers must be included.

Area	Type of Work	WP # & Defeat #	FC approval	Work area Ops group approval	TRIUMF Escort	End Date/Time	Start Date/Time
ARIEL Facility*							
RCA1,2&3 (Nordion)*							
E-LINAC Compressor Building							
ISAC I & II Facilities*							
M-8 (CMMS)*							
Main Accelerator Building*							
Machine Shop							
MHESA*							
Main Office Building							

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Remote Handling*							
Service Annex*							
Service Annex Extension							
Stores & Design Office Facility							
Trailers Aa, Gg, Ss, Mm, Pp, Ll, Q, Rr							
HazMat Storage*							
Trailers Hh & Ff							

NOTE: the asterisk (*) denotes Exclusion Area(s) within the facility.