#### **Fire System Impairment Process** Protection System Requesting organization Requesting Requesting Impairment Impairment Inspect the Identify mitigative Fire outage is Impairment Requesting organization ensures the organization or their organization will Coordinator will coordinator will controls and list on authorized by building/area and coordinator will will notify building contractor will notify s this a planned necessary tools. notify Impairment engage EHS to notify the Golden event? perform Risk the outage Impairment notify insurance occupants of the outage equipment are on the monitoring Coordinator of assist in performing Fire Department of Assessment notification Coordinator carrier and post notices site and everyone is company of the a risk assessment needed impairment the outage ready to proceed outage with the outage Send out an Outage Notification may Check off standard Determine what Notice to the FM Outages DL and the Building DL Post the Impairment through the work List what additional Notice via e-mai order system or Proceed with taking restrictions are required - Fire Command Determine the areas directly Identify if fire watch is the system off line within the building - Fire Staff Restrictions Notice on required. Complete Fire Watch Form if required. and perform work that will be affected. Fire Dispatch understands the the building entrances Ouestions for Copy requesting organization and Determine the For Fire Watches in mitigative control identified during Post the Fire Watch student housing EHS carrier, Flood coordinate with RLC on sections 1 and 2 Perform necessary hot work activities call at 303-384-2199 or RL AD on call at 303 on the inspections and are associated with Example of Impairment 970-506-3213 tests to verify the Restriction and Fire affected system is activity. Identify if building Watch Notices to be operational evacuation is required Identify if building affected area need by the impairment to be restricted. coordinator and Post the Impairment Requesting If operational sent to requesting Notice on the fire organization will submitted at organization sprinkler parts are notify the least 72 hours required to be available monitoring or 3 business Identify if temporary or Notice to be placed on company, building standby protection is occupants, and of the Impairment the fire panel/ impairment Notice annunciator is located Impairment will be added to coordinator that sprinkler and/or fire on page 2 of this protection has been circumstances hydrant restored If FDC is affected post shared calendar Call the monitoring Notify building company occupants of the Remove postings from fire panel and building entrances. E-mail the Impairment Coordinator will Impairment Inspect the Identify mitigative Fire outage is Impairment Send out an Outage Notice to the FM Outage Notify Impairment engage EHS to coordinator will building/area and controls and list on authorized by coordinator will DL and the Building DL Post the Impairment Notice on the building entrances and on lab doors Coordinator of assist in performing notify the Golden perform Risk the outage Impairment notify insurance Coordinator needed impairment a risk assessment Fire Department of notification Coordinator Assessment carrier if available and the outage Post Fire Watch Notice on the building time allows entrances if a Fire Watch is established Impairment Inform lab workers if present Pull in resources as needed to assist in notifying building occupants. Scope: The Fire System Impairment coordinator will process defined in this document does Fire Watch Requirements notify fire Standard Occupant Restrictions for Laboratory Buildings not apply to taking single points on the department, and detection system offline for hot work or The person performing the fire watch must perform constant patrols of the affected area. insurance carrier No Open Flame or Flammable Research Work in the maintenance activities. that protection has observing for fires and making the appropriate notification in case of a fire, refer to Fire Building, this includes: been restored Watch form. Fire watch is required if building occupants are unprotected during the fire No Bunsen burners Impairment Coordinators protection system outage. No welding, cutting, or spark producing work such as Bob Slavik - FM (Primary) Email GFD (Fire rwslavik@mines.edu; 303-273-Fire Watch vests and bull horns are available in EHS Office. No work with pyrophorics, water reactives or explosives 3312: 303-885-8557 Ray Castillo - FM (Backup) No flowing of flammable gases or performing Require fire watch when: rcastill@mines.edu; 303-273exothermic reactions The impairment extends beyond 10 hours in a 24 hour period per NFPA 1 and NFPA Heat producing experiments must be attended. 3263; 720-496-7782 Craig Crow - FM (Backup) There is insufficient time to ensure operational restrictions are in place, e.g. in an ccrow@mines.edu; 303-273-Standard Occupant Restrictions for Non-Laboratory 3356; 303-421-0832 <u>Buildings</u> The fire panel can not annunciate an alarm condition within the building The fire panel cannot report out an alarm condition to Golden Fire Department. If ork Complete an Requesting Organizations No hot work, this includes: this is the only impairment that exists (detection/protection/building notification is Fire System Facilities Management (FM) No open flames. in place) then other limited duties may be assigned to the fire watch personnel. Restored Office of Design and Construction No welding, cutting, brazing, soldering The impairment extends after hours and no one is actively working on the No spark producing activities such as grinding

### **Example Impairment Notice to be posted on Fire Panels**



### COLORADOSCHOOLOFMINES.

### Impairment Notice **Building Fire System Impairment**

Section 1 – General Information (Completed by requesting organization)							
Building Name:		W (4) 70 70					
Building Address:							
Impairment Coordinator		303-273-3312 / 303-885-8557 (Primary);					
(Name and phone number):	Ray Castillo 303-273-3263 / 720-496-7782 (Back up);						
CSM Project Manager	Craig Crow	303-273-3356 / 303-421-0832 (Back up)					
(Name and phone number):							
Contractor							
(Company name, name of onsite							
representative and phone number):							
Section 2 – Impairment Information (Completed by requesting organization)							
System Impaired:							
Location:							
Impairment Details/Description:							
Hot work is associated with	☐ Yes	If yes provide details on hot work activity:					
system Impairment:	□No						
Start Time and Date:							
End Time and Date:							
Section 3 – Impairment Requirements and Controls (Completed by impairment coordinator)							
☐ Building operating restrictions required							
☐ Standard restrictions for Laboratory Buildings  No Open Flamme or Flammable Work, this includes:							
No Bunsen burners							
<ul> <li>No welding, cutting, or</li> </ul>	spark producin	ng work such as grinding					
No work with pyrophorics, water reactives or explosives							
No flowing of flammable gases or performing exothermic reactions							
Heat producing experiments must be attended.							
☐ Standard restrictions for Non-Laboratory Buildings No hot work, this includes:							
No open flames,							
No welding, cutting, brazing, soldering							
No spark producing activities such as grinding							
☐ Other restrictions required — List:							
☐ Notification identifying restrictions posted at entry door							
☐ Outage Notification for is to be posed at fire panel/annunciator next to building map							
☐ Outage Notification is to be sent to Golden FD, Building Occupants, and State Risk							
☐ Notify the Fire System monitoring company prior to impairing the fire protection system							
☐ Fire Watch Required – Complete the Fire Watch Form and brief workers to the requirements							
☐ Building Evacuation/Closure Required							
☐ Additional fire extinguishers are required – Number/Type/Location:							
☐ Temporary/standby protection is required – Details:							
☐ Spare sprinkler parts are required to be available							
☐ Hot work associated with the system impairment is authorized							
☐ Post Fire Department Connection (FDC) status – Details:							
Section 4 – Impairment Authorization							
Signature of Impairment Coordina	ator:	Date:					

**Example Fire Watch Form** 



COLORADOSCHOOLOFMINES.

### Fire Watch

### Building Fire System Impairment (Supplement to Fire System Impairment Notice)

Building Name:	Compieted	b) regressing or gon memorin on	inpunition 0	- Statistics y				
Building Address:								
Impairment Coordinator	Bob Slavik	Poli Clavili 202 272 2242 / 202 005 0557 (Driman): Part Cartilla (Parti un) 202 272 2222 / 722						
(Name and phone number):		Bob Slavik 303-273-3312 / 303-885-8557 (Primary); Ray Castillo (Back up) 303-273-3263 / 720- 496-7782; Craig Crow 303-273-3356 / 303-421-0832 (Back up)						
CSM Project Manager	450-7702, Graig Grow 505-275-55507 505-421-0052 (Dath up)							
(Name and phone number):								
Contractor								
(Company name, name of onsite								
representative and phone number):								
Section 2 – Impairment Informa	ation (Compl	ated by requesting arganization	n or impairm	ant coordinator)				
System Impaired:	icion (compi	eted by requesting organizatio	i or impairm	ent coordinator)				
Affected area within the								
building:								
Reason for Fire Watch	□ Impoirment will extend beyond 40 hours □ Impoirment extends after hours							
Reason for Fire Watch	☐ Impairment will extend beyond 10 hours ☐ Impairment extends after hours							
		☐ Fire panel cannot annunciate alarm in building ☐ Emergency Outage						
	☐ Fire panel cannot notify Golden Fire Department							
Does the impairment affect Fire		☐ Yes If yes then fire watch personnel will need to have a cell phone or phone access in the						
Panel ability to notify GFD?	□ No	immediate area to call 91	1					
Does the impairment affect Fire	☐ Yes	If yes, then will the fire	☐ Yes	If no, then use	☐ Building PA			
Panel ability to notify building	□ No	pull station initiate	□ No	alternate means of	☐ Bull horn			
residence?		building notification?		notification, identify	☐ Whistle			
				means in the next	☐ Verbal			
				block	☐ Other			
Start Time and Date:		-						
End Time and Date:								
Section 3 – Fire Watch Details								
Fire Watch Personnel have	☐ Assigned duty requirements, check the one that applies							
been briefed to the following:	☐ They have no other duties other than to perform a fire watch. ☐ Limited duties may be assigned; must remain attentive in the building. ☐ Their primary role, check the one that applies							
been briefed to the following.								
	□ Look for observable signs of smoke and/or fire.							
	☐ Listen for a fire alarm and call 911 if a fire alarm is activated.							
	☐ They are to wear the Fire Watch vest provided during their patrols							
	☐ Continu	☐ Continually patrol/monitor the affected area (refer to section 2) by:						
	☐ Walking through:							
	-	Common areas						
	-	Corridors/Hallways						
	- Stairwells							
		Food preparation areas						
	☐ Opening doors and looking in:							
	- Mechanical rooms							
	- Electrical rooms							
	- Laboratories							
	□ Other							
	☐ If signs of smoke and/or fire is observed then they will take the following actions:							
	Call 911							
	<ul> <li>Notify building occupants by pulling the nearest fire alarm pull station or using an</li> </ul>							
	alternate means as identified in section 2  Do not put themselves in jeopardy when notifying building residence using alternate means of notification							
	☐ Contact the impairment coordinator or PM (see section 1) if they have questions or concerns							
	while pe	erforming the Fire Watch.						
Person(s) performing Fire								
Watch Print Name								
	Print Name Signature							
	-	Print Name		Sic	nature			
		i iiii isairie		Sil	Rev. July 2017			

Example Outage Restriction Notice for Laboratory Buildings to be posted at Building Entrances

# NOTICE

Fire protection system impairment

## No Open Flame or Flammable Work in Building

#### This means:

- No bunsen burners
- No welding, cutting, or spark producing work such as grinding
- No work with pyrophorics, water reactives or explosives
- No flowing of flammable gases or performing exothermic reactions
- Heat producing experiments must be attended

Effective date(s)/times: Insert detail
Contact: PM Name and phone number

Example Outage Restriction Notice for Non-Laboratory Buildings to be posted at Building Entrances

## NOTICE

Fire protection system impairment

No Hot Work in Building

#### This means:

- No open flames
- No welding, cutting, brazing or soldering
- · No spark producing work such as grinding

Effective date(s)/times: Insert detail Contact: PM Name and phone number

Example supplemental Notice to be posted at Building Entrances when a Fire Watch is in place

## NOTICE

### Fire Watch in Place

#### This means:

- If you observe smoke or signs of fire, exit the building and call 911
- Follow Fire Watch Personnel direction for evacuation of the building

Effective date(s)/times: *Insert detail*Contact: *PM Name and phone number*