MRSE 2573 OSHE

CASE STUDY

VORTEX TURBINE POS LEMOI

Group Members:

HAIRUL FAHMY BIN ITHNIN	**MRS161063**
HAGIL AZALI BIN HAMDAN	**MRS161099**
KAMAL BIN MOHAMAD RAINI	**MRS171091**
ALICE LEONG MEI PING	**MRS171092**
ASHOK A/L AMBIKAPATAHY	**MRS171041**
M NERRANJINI A/P MANOHARAN	**MRS171034**
PUVANIESHVARAN A/L AMPANATHAM	**MRS171026**
SUHAN A/L GANASEN	**MRS171040**

SLIDE OUTLINE :-

1) INTRODUCTION OF :-
   1.1) HAZARD
   1.2) RISK ASSESSMENT
   1.3) RISK CONTROL

2) CASE STUDY INTRODUCTION

3) HAZARD, RISK ASSESSMENT AND RISK CONTROL IN CASE STUDY

INTRODUCTION TO **HAZARD**

- *A potential source of harm that can cause physical injury or death.*

- *Hazard can be in different forms and from wide range of sources.*

INTRODUCTION TO **RISK ASSESSMENT**

(1)Hazard identification

(2)Risk analysis and risk evaluation

(3)Risk control

INTRODUCTION TO **RISK ASSESSMENT**

- The probability and chances of accidents, physical injury or death to happen due to the exposed hazard danger.

- The likelihood of the occurrence of a harm and the severity of that harm

INTRODUCTION TO **RISK CONTROL**

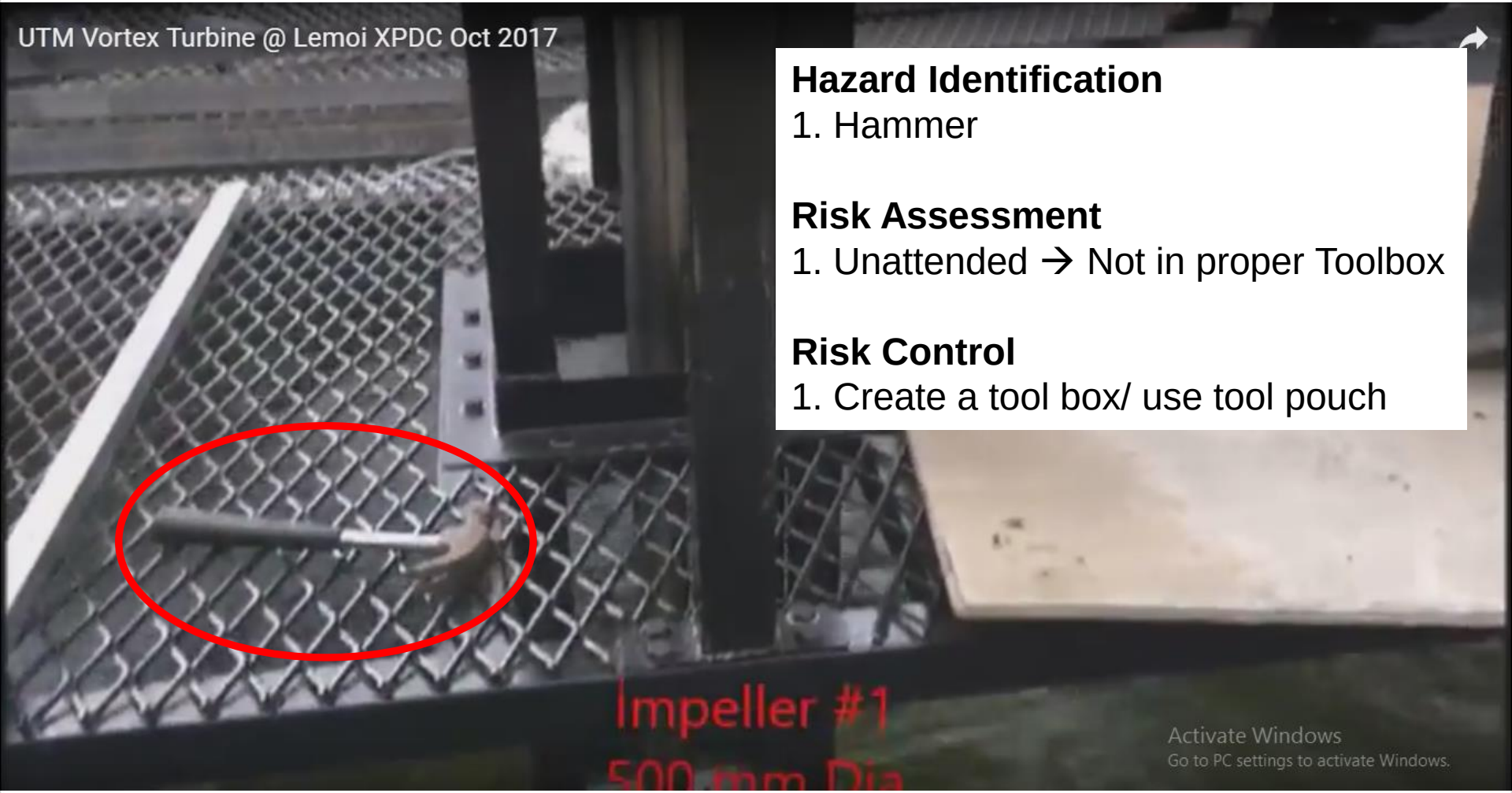
- **Control measures** include actions that can be taken to:-
  - **reduce the potential of exposure** to the hazard
  - could be to **remove the hazard** or
  - to **reduce the likelihood** of the risk of the exposure to that hazard occur.

CASE STUDY INTRODUCTION

- LOCATION : Pos Lemoi, Cameron Highlands
- PERIOD : July 2017
- OPERATION: Vortex Turbine Development

UTM Vortex Turbine @ Lemoi XPDC Oct 2017
Impeller #1
500 mm Dia
Activate Windows
Go to PC settings to activate Windows.

UTM Vortex Turbine @ Lemoi XPDC Oct 2017
Impeller #1
500 mm Dia
Activate Windows
Go to PC settings to activate Windows.



Hazard Identification

1. Hammer

Risk Assessment

1. Unattended → Not in proper Toolbox

Risk Control

1. Create a tool box/ use tool pouch

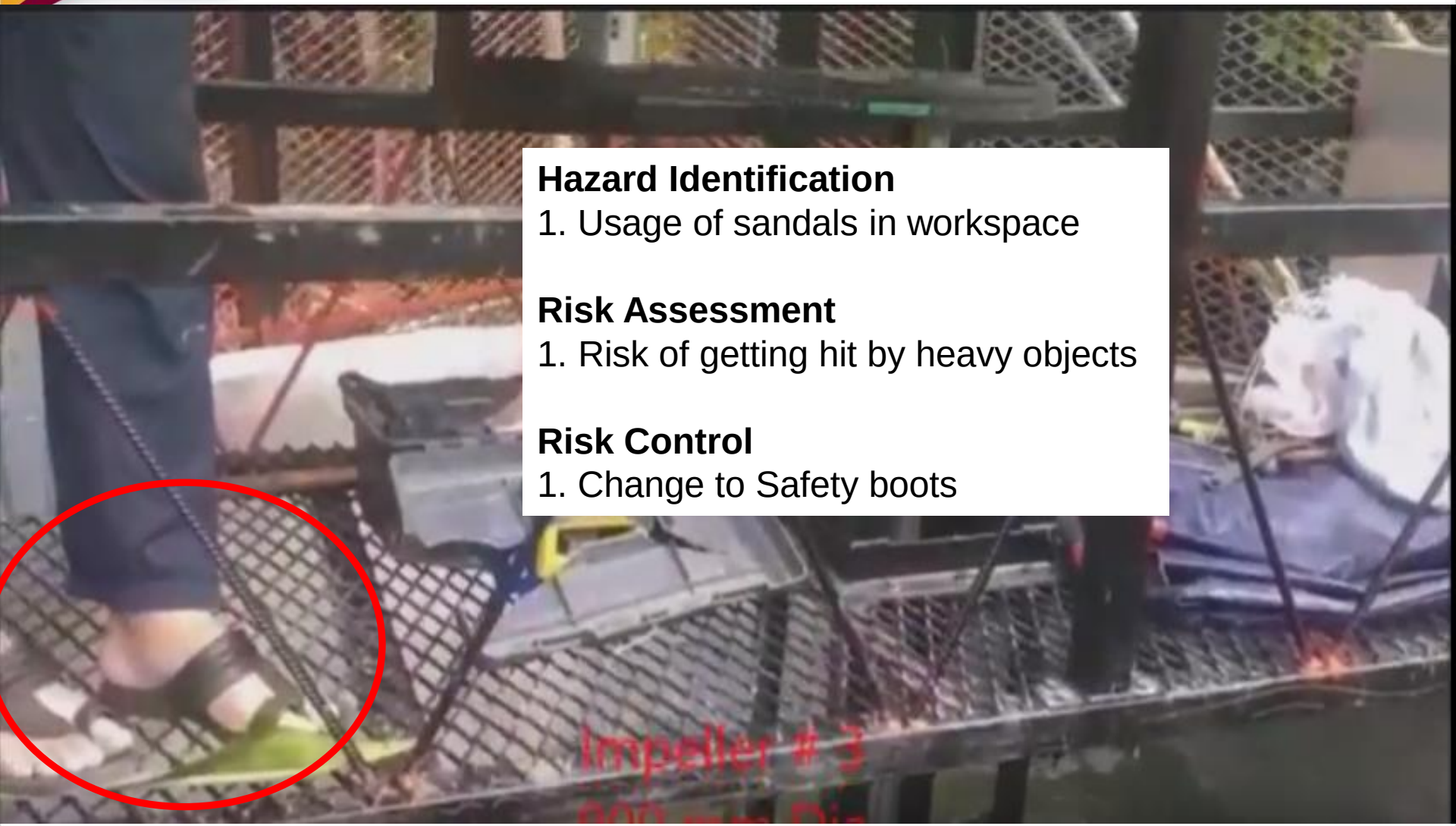
Hazard Identification
1. Rubber Boots

Risk Assessment
1. Do not cover the toes from getting hit by heavy objects

Risk Control
1. Change to Safety boots

Impeller # 3

Impeller # 3



Hazard Identification
1. Usage of sandals in workspace

Risk Assessment
1. Risk of getting hit by heavy objects

Risk Control
1. Change to Safety boots

Hazard Identification

1. Broken toolbox

Risk Assessment

1. Risk of dropping all tools and hurting manpower

Risk Control

1. Change a new toolbox with proper locking

Modification of
impeller #4

Modification of
impeller #4

Hazard Identification
1. Platform

Risk Assessment
1. Can cause blunt trauma onto the head

Risk Control
1. Put signage

Hazard Identification
1. Grinding, Attire

Risk Assessment
1. Can cause injuries while grinding and handling sharp objects

Risk Control
1. Use proper attire

Impeller #5

Impeller #5

Hazard Identification
1. No headgear

Risk Assessment
1. Too close to the rotating component

Risk Control
1. Wear safety helmet

Hazard Identification

1. Rotating component

Risk Assessment

1. Long hair or hand might get stuck in it

Risk Control

1. Cover the rotating component

Pulley 300 mm Dia

Pulley 300 mm Dia

Hazard Identification
1. Inorganize wires

Risk Assessment
1. Might fell into the water turbine and cause electrical shock

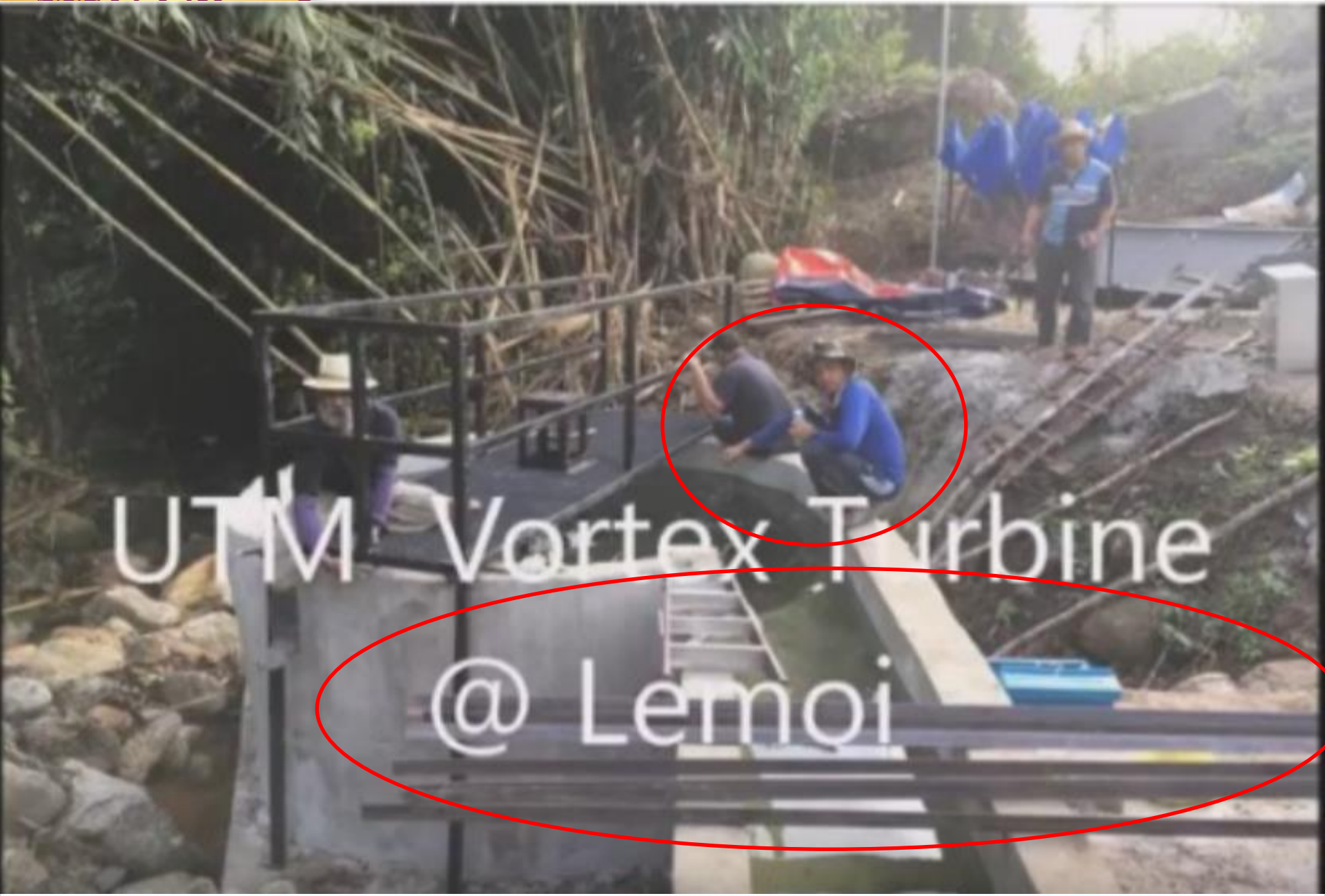
Risk Control
1. Proper placement and secure the wires

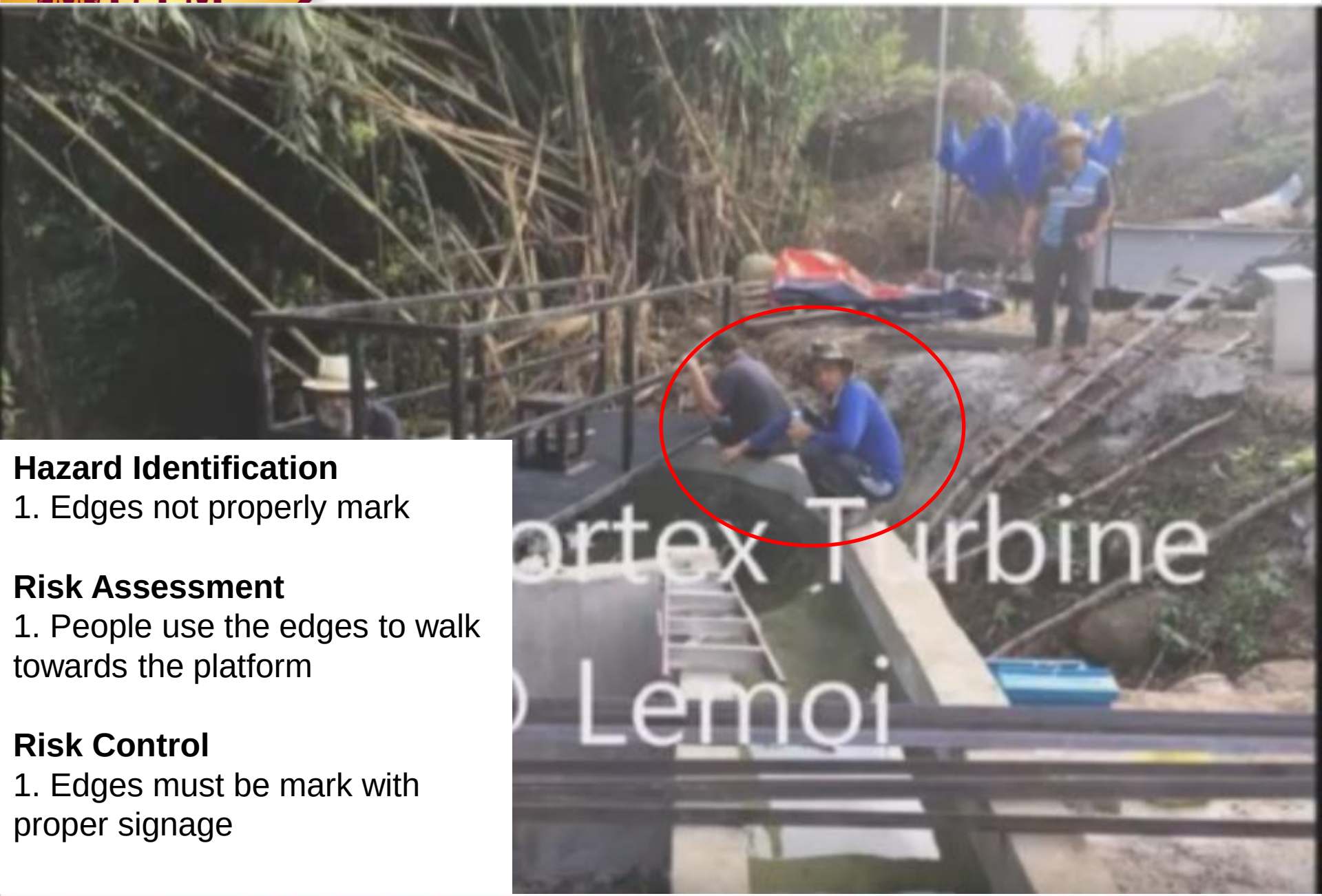
Hazard Identification
1. Pen

Risk Assessment
1. Might fell into the water turbine and damage the component while rotating

Risk Control
1. Properly tie or placed after use

UTM Vortex Turbine
@ Lemoi


UTM Vortex Turbine
@ Lemoi



Hazard Identification

1. Edges not properly mark

Risk Assessment

1. People use the edges to walk towards the platform

Risk Control

1. Edges must be mark with proper signage

Hazard Identification

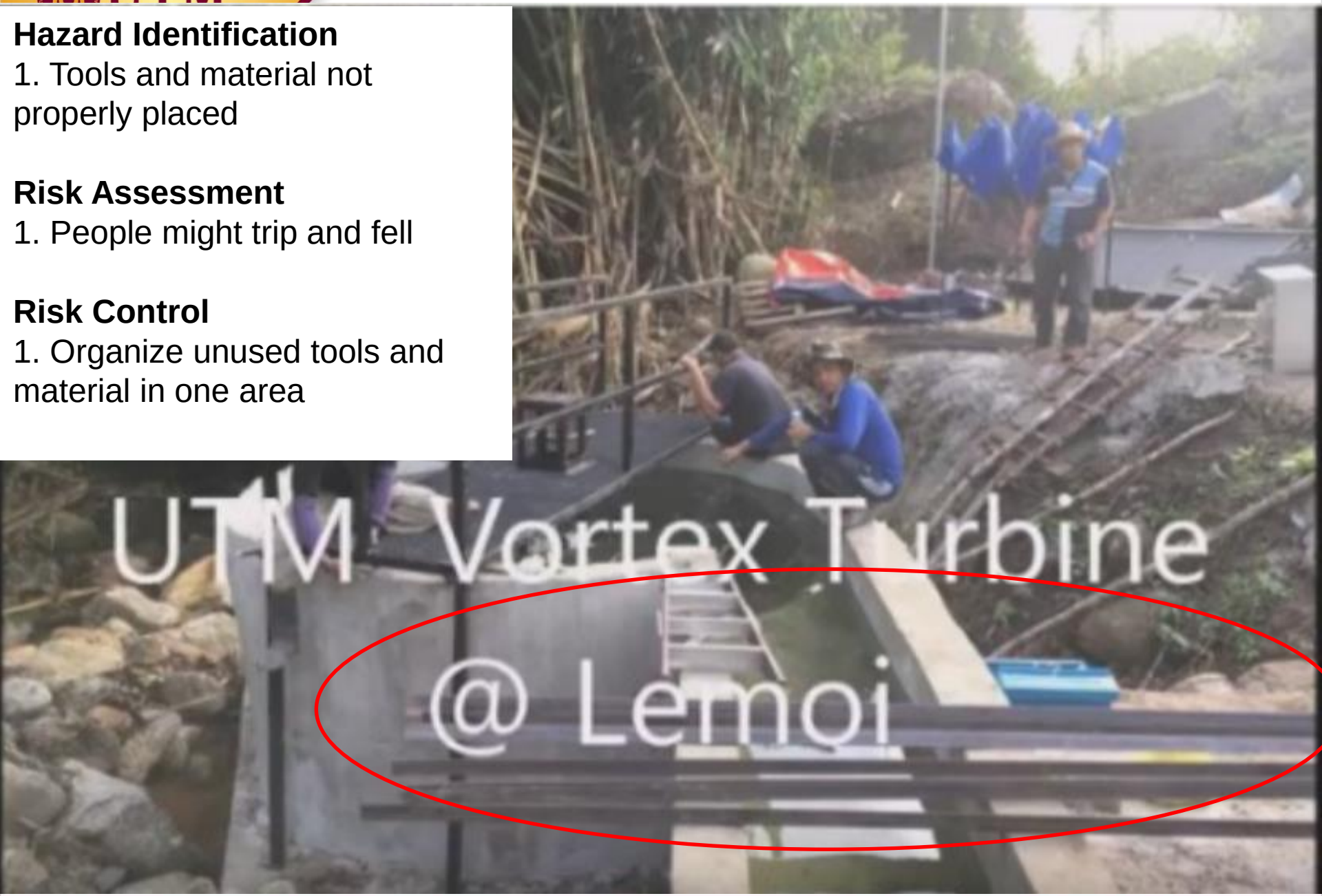
1. Tools and material not properly placed

Risk Assessment

1. People might trip and fell

Risk Control

1. Organize unused tools and material in one area



NBOS
UTM
STRATEGI LAUTAN BIRU KEBANGSAAN
PENDIDIKAN TINGGI
KeTTHA
IAKOA
POLITEKNIK
POLITEKNIK

THANK
YOU
GRACIAS
ARIGATO
SHUKURIA
GOZAIMASHITA
EFCHARISTO
DANKSCHEEN
JUSPAXAR
TASHAKKUR ATU
YAQHANYELAY
SUKSAMA
EKHMET
MEHRBANI
GRAZIE
MAAKE
KOMAPSUMNIDA
PALDIES
BOLZÏN
MERCI
BÏYAN
SHUKRIA
TINGKI