

PROJECT RISK MANAGEMENT

RISK MANAGEMENT IS THE IDENTIFICATION, ASSESSMENT AND PRIORITIZATION OF RISKS AS THE EFFECT OF UNCERTAINTY ON OBJECTIVES

RISKS CAN COME FROM UNCERTAINTY IN FINANCIAL MARKETS, PROJECT FAILURES AT ANY PHASE IN DESIGN, DEVELOPMENT, PRODUCTION, LEGAL LIABILITIES, CREDIT RISKS, ACCIDENTS, NATURAL CAUSES, DISASTERS ETC.

THE STRATEGIES TO MANAGE RISK TYPICALLY INCLUDE TRANSFERRING THE RISK TO ANOTHER PARTY, AVOIDING THE RISK, REDUCING THE NEGATIVE EFFECT (OR) PROBABILITY OF THE RISK.

METHOD

- (1) IDENTIFY, CHARACTERIZE AND ASSESS THREATS
- (2) ASSESS THE VULNERABILITY OF CRITICAL ASSETS TO SPECIFIC THREATS
- (3) DETERMINE THE RISK (EXPECTED LIKELIHOOD AND CONSEQUENCES OF SPECIFIC TYPES OF ATTACKS ON SPECIFIC ASSETS).

(4) IDENTIFY

(5) PRIORIT
A STRAT

PRINCIP

RISK MAN

- CREAT

- BE AN
PROCES

- BE P

- ADD

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- BE

- TR

- B

ASSESSMENT AND PRIORITIZATION OF
OBJECTIVES

FINANCIAL MARKETS, PROJECT FAILURES
ACTION, LEGAL LIABILITIES,
USES, DISASTERS ETC.

TYPICALLY INCLUDE TRANSFERRING
THE RISK, REDUCING THE
THE RISK.

ASSESS THREATS

OF CRITICAL ASSETS TO SPECIFIC

ED LIKE LIHOOD AND CONSEQUENCES

IC TYPES OF ATTACKS ON
SPECIFIC ASSETS).

(4) IDENTIFY WAYS TO REDUCE THOSE RISKS

(5) PRIORITIZE RISK REDUCTION MEASURES BASED ON
A STRATEGY

PRINCIPLE OF RISK MANAGEMENT

RISK MANAGEMENT SHOULD

- CREATE VALUE — RESOURCES EXPENDED TO MITIGATE
RISK SHOULD BE LESS THAN THE
CONSEQUENCE OF INACTION
- BE AN INTEGRAL PART OF ORGANIZATIONAL
PROCESSES
- BE PART OF DECISION MAKING
- ADDRESS UNCERTAINTY AND ASSUMPTIONS.
- BE SYSTEMATIC AND STRUCTURED
- BE TAILORABLE
- TAKE HUMAN FACTORS INTO ACCOUNT
- BE TRANSPARENT AND INCLUSIVE

- BE DYNAMIC ITERATIVE
- BE CAPABLE OF
ENHANCEMENT
- BE CONTINUALLY

RISK ANALYSIS

- SOURCE AND
- PROBLEM AND

- OBJECTIVE BASED
 - HOW AN ENTITY
ACHIEVING
(OR) COMPLETING

- SCENARIO

WAYS TO REDUCE THOSE RISKS

RISK REDUCTION MEASURES BASED ON

OF RISK MANAGEMENT

MENT SHOULD

VALUE — RESOURCES EXPANDED TO MITIGATE

RISK SHOULD BE LESS THAN THE
CONSEQUENCE OF INACTION.

EQUAL PART OF ORGANIZATIONAL

OF DECISION MAKING

UNCERTAINTY AND ASSUMPTIONS.

SYSTEMATIC AND STRUCTURED

CONTROLABLE

HUMAN FACTORS INTO ACCOUNT

TRANSPARENT AND INCLUSIVE

- BE DYNAMIC ITERATIVE AND RESPONSIVE TO CHANGE
- BE CAPABLE OF CONTINUAL IMPROVEMENT AND ENHANCEMENT
- BE CONTINUALLY (OR) PERIODICALLY RE-ASSESSED.

RISK ANALYSIS

- SOURCE ANALYSIS — RISK SOURCES MAY BE INTERNAL (OR) EXTERNAL TO THE SYSTEM.
- PROBLEM ANALYSIS — RISKS ARE RELATED TO IDENTIFIED THREAT

OBJECTIVE BASED RISK IDENTIFICATION

- HOW AN EVENT CAN ENDANGER ACHIEVING AN OBJECTIVE PARTLY (OR) COMPLETELY

SCENARIO BASED RISK IDENTIFICATION

RISK ASSESS

CONSEQUENCE

RATING
5

CATASTROPHIC

(OBJECTIVE)

PROJECT OBJECTIVE
NOT ACHIEVED

(HUMAN)

MULTIPLE FATALITIES
SIGNIFICANT IRREVERSIBLE
EFFECT TO MORE THAN
50% PERSONS

(FINANCIAL)

50% VARIANCE
BUDGET

ENVIRONMENT

VERY SERIOUS LONG
TERM IMPACT ON
ECOSYSTEM

LEGAL

SIGNIFICANT FIN

RISK ASSESSMENT				
CONSEQUENCES				
RATING				
5	4	3	2	1
CATASTROPHIC	MAJOR	MODERATE	MINOR	INSIGNIFICANT
(OBJECTIVE) PROJECT OBJECTIVE IS NOT ACHIEVED	OBJECTIVE MAY BE DELAYED BY 50% (OR) MORE	OBJECTIVE DELAYED BY LESS THAN 50%	MILESTONE NOT ACHIEVED	NEGLECTIBLE IMPACT ON MILESTONES
(HUMAN) MULTIPLE FATALITIES (OR) SIGNIFICANT IRREVERSIBLE EFFECT TO MORE THAN 50% PERSONS	SINGLE FATALITY AND SEVERE IRREVERSIBLE DISABILITY > 30% TO ONE OR MORE PERSONS	MODERATE IRREVERSIBLE DISABILITY (OR) IMPAIRMENT (< 30%)	SIGNIFICANT BUT REVERSIBLE DISABILITY REQUIRING HOSPITALISATION	NO MEDICAL TREATMENT REQUIRED
(FINANCIAL) 50% VARIANCE TO BUDGET	30% VARIANCE TO BUDGET	20% VARIANCE TO BUDGET	10% VARIANCE TO BUDGET	5% VARIANCE TO BUDGET
ENVIRONMENTAL VERY SERIOUS LONG TERM IMPACT ON ECOSYSTEM	SERIOUS LONG TERM ENVIRONMENTAL IMPACT	SERIOUS MEDIUM TERM IMPACT	MODERATE SHORT TERM EFFECT	MINOR EFFECT ON BIOLOGICAL OR PHYSICAL ENVIRONMENT
LEGAL SIGNIFICANT FINES	MAJOR BREACH OF REGULATION	SERIOUS BREACH OF REGULATION	MINOR LEGAL ISSUES	

9
REPUTATION
SERIOUS PUBLIC (OR) MEDIA OUTCRY
INTERNATIONAL COVERAGE

CONSEQUENCE
↓
LIKELIHOOD

ALMOST CERTAIN

LIKELY

NEUTRAL

UNLIKELY

RARE

	1
NE NOT ED	INSIGNIFICANT NEGLEGIBLE IMPACT ON MILESTONES
ANT BUT BLE TY NG ISATION	NO MEDICAL TREATMENT REQUIRED
ARIANCE DGET	5% VARIANCE TO BUDGET
LATE TERM EFFECT	MINOR EFFECT ON BIOLOGICAL OR PHYSICAL ENVIRONM -GNT
OR LEGAL UES	

5	4	3	2	1
REPUTATION SERIOUS PUBLIC (OR) MEDIA OUTCRY INTERNATIONAL COVERAGE	SERIOUS PUBLIC (OR) MEDIA OUTCRY	SIGNIFICANT ADVERSE ATTENTION BY MEDIA	MEDIA ATTENTION OF LOCAL CONCERN	MINOR ADVERSE LOCAL PUBLIC (OR) MEDIA ATTENTION COMPLAINT

SAMPLE RISK SCORING MATRIX

		OVERALL RATING				
CONSEQUENCE ↓ LIKELIHOOD		INSIGNIFICANT	MINOR	MODERATE	MAJOR	CATASTROPHIC
		1	2	3	4	5
ALMOST CERTAIN	5	MEDIUM (5)	MEDIUM (10)	SIGNIFICANT (15)	HIGH (20)	HIGH (25)
LIKELY	4	LOW (4)	MEDIUM (8)	SIGNIFICANT (12)	SIGNIFICANT (16)	HIGH (20)
NEUTRAL	3	LOW (3)	MEDIUM (6)	MEDIUM (9)	SIGNIFICANT (12)	SIGNIFICANT (15)
UNLIKELY	2	LOW (2)	LOW (4)	MEDIUM (6)	MEDIUM (8)	MEDIUM (10)
RARE	1	LOW (1)	LOW (2)	LOW (3)	LOW (4)	MEDIUM (5)

COMPOSITE RISK

- DES
- RIS
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POTENT

- 1
- 2
- 3
- 4

MINOR
VERSE
AL
BLIC (OR)
IA
ENTION
PLAINT

Y

MAJOR	CATASTROPHIC
4	5
HIGH (20)	HIGH (25)
SIGNIFICANT (16)	HIGH (20)
SIGNIFICANT (12)	SIGNIFICANT (15)
MEDIUM (8)	MEDIUM (10)
LOW (4)	MEDIUM (5)

$$\text{COMPOSITE RISK INDEX} = \text{IMPACT OF RISK EVENT} \times \text{PROBABILITY OF OCCURRENCE}$$

RISK OPTIONS

- ① DESIGN A NEW BUSINESS PROCESS WITH ADEQUATE BUILT IN RISK CONTROL AND CONTAINMENT MEASURED FROM THE START
- ② PERIODICALLY RE-ASSESS RISKS THAT ARE ACCEPTED IN ONGOING PROCESSES AS A NORMAL FEATURE OF BUSINESS OPERATIONS AND MODIFY MITIGATION MEASURES.
- ③ TRANSFER RISK TO EXTERNAL AGENCY (INSURANCE COMPANY)
- ④ AVOID RISKS ALTOGETHER (CLOSING DOWN A PARTICULAR HIGH RISK BUSINESS AREA)

POTENTIAL RISK TREATMENTS

- ① AVOIDANCE (ELIMINATE, WITHDRAW FROM (OR) NOT BECOME INVOLVED)
- ② REDUCTION (OPTIMIZE, MITIGATE)
- ③ SHARING (TRANSFER / OUTSOURCE / INSURE)
- ④ RETENTION (ACCEPT AND BUDGET)

	5	4	3	2	1
REPUTATION					
SERIOUS PUBLIC (OR) MEDIA OUTCRY INTERNATIONAL COVERAGE		SERIOUS PUBLIC (OR) MEDIA OUTCRY	SIGNIFICANT ADVERSE ATTENTION BY MEDIA	MEDIA ATTENTION OF LOCAL CONCERN	MINOR ADVERSE LOCAL PUBLIC (OR) MEDIA ATTENTION COMPLAINT

SAMPLE RISK SCORING MATRIX

CONSEQUENCE ↓ LIKELIHOOD	OVERALL RATING				
	INSIGNIFICANT 1	MINOR 2	MODERATE 3	MAJOR 4	CATASTROPHIC 5
ALMOST CERTAIN	5 MEDIUM (5)	MEDIUM (10)	SIGNIFICANT (15)	HIGH (20)	HIGH (25)
LIKELY	4 LOW (4)	MEDIUM (8)	SIGNIFICANT (12)	SIGNIFICANT (16)	HIGH (20)
NEUTRAL	3 LOW (3)	MEDIUM (6)	MEDIUM (9)	SIGNIFICANT (12)	SIGNIFICANT (15)
UNLIKELY	2 LOW (2)	LOW (4)	MEDIUM (6)	MEDIUM (8)	MEDIUM (10)
RARE	1 LOW (1)	LOW (2)	LOW (3)	LOW (4)	MEDIUM (5)

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	3	2	1
SIGNIFICANT ADVERSE ATTENTION BY MEDIA			
MEDIA ATTENTION OF LOCAL CONCERN			
MINOR ADVERSE LOCAL PUBLIC (OR) MEDIA ATTENTION COMPLAINT			

EXAMPLE RISK SCORING MATRIX

	OVERALL RATING			
	MINOR 2	MODERATE 3	MAJOR 4	CATASTROPHIC 5
SIGNIFICANT				
MEDIUM (5)	MEDIUM (10)	SIGNIFICANT (15)	HIGH (20)	HIGH (25)
(4)	MEDIUM (8)	SIGNIFICANT (12)	SIGNIFICANT (16)	HIGH (20)
(3)	MEDIUM (6)	MEDIUM (9)	SIGNIFICANT (12)	SIGNIFICANT (15)
(2)	LOW (4)	MEDIUM (6)	MEDIUM (8)	MEDIUM (10)
LOW (1)	LOW (2)	LOW (3)	LOW (4)	MEDIUM (5)

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POTENTIAL RISK TREATMENTS

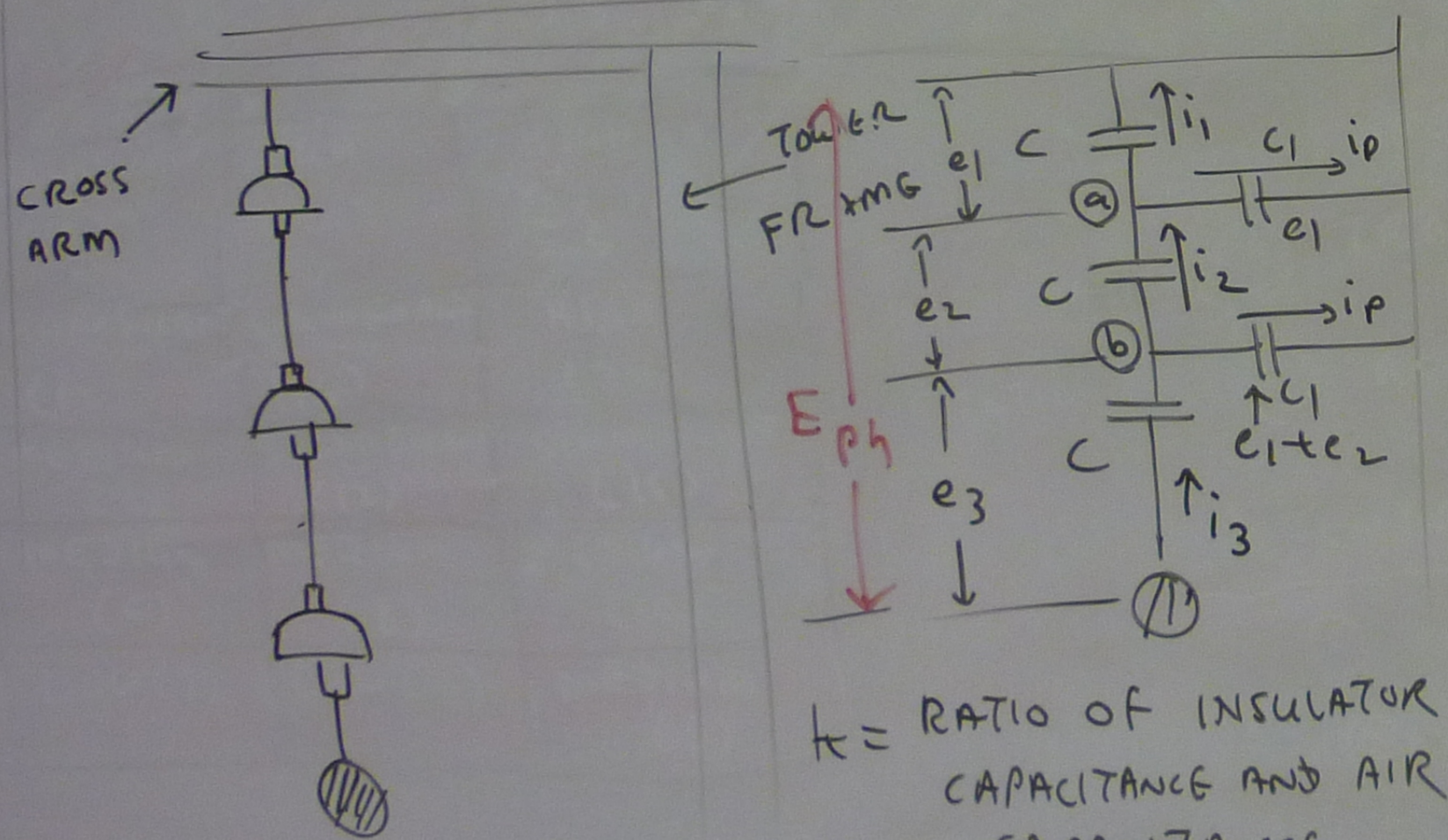
- AVOIDANCE (ELIMINATE, WITHDRAW FROM (OR))
- REDUCTION (OPTIMIZE, MITIGATE)
- SHARING (TRANSFER / OUTSOURCE / INSURE)
- RETENTION (ACCEPT AND BUDGET)

AND
E.
S

$$C \text{ for } 300 \text{ cm} = 0.025 \times 10^{-6} \times 300 \times 10^3$$

$$\begin{aligned} \text{CURRENT} &= 2\pi f C V \\ &= 2 \times 3.1416 \times 50 \times 0.025 \times 10^{-6} \times 300 \times 10^3 \\ &= 1.885 \text{ A} \end{aligned}$$

CAPACITANCE DISTRIBUTION OF INSULATOR STRING



$k = \text{RATIO OF INSULATOR CAPACITANCE AND AIR CAPACITANCE}$

$$k = \frac{C_1}{C} \Rightarrow$$

AT POINT (a)

$$i_2 = i_1 + i_p$$

CURRENT = CAPACITANCE X VOLTAGE

$$i_2 = C e_2$$

$$i_1 = C e_1, \quad i_p = C_1 e_1$$

$$C e_2 = C e_1 + C_1 e_1 = (C + C_1) e_1 \quad \text{--- (1)}$$

AT POINT (b)

$$i_3 = i_2 + i_p$$

$$C e_3 = C e_2 + C_1 (e_1 + e_2)$$

$$e_3 = \frac{C e_2 + C_1 (e_1 + e_2)}{C}$$

$$= e_2 + \frac{C_1}{C} (e_1 + e_2)$$

$$e_3 = e_2 + k (e_1 + e_2) \quad \text{--- (2)}$$

$$\textcircled{1} \quad ce_2 = (c + c_1) e_1$$

$$e_2 = \frac{c + c_1}{c} \times e_1 = \left(1 + \frac{c_1}{c}\right) e_1 = (1 + k) e_1$$

$$e_2 = (1 + k) e_1 \quad \text{---} \textcircled{1}$$

$$\textcircled{2} \Rightarrow e_3 = e_2 + k(e_1 + e_2)$$

$$e_3 = (1 + k) e_1 + k[e_1 + (1 + k) e_1]$$

$$= \left\{ (1 + k) + k[1 + (1 + k)] \right\} e_1$$

$$= \left\{ 1 + k + k(2 + k) \right\} e_1$$

$$= [1 + k + 2k + k^2] e_1$$

$$e_3 = [1 + 3k + k^2] e_1 \quad \text{---} \textcircled{3}$$

$$E_{ph} = e_1 + e_2 +$$

$$E_{ph} = e_1 + (1 + k) e_1$$

$$= [1 + 1 + k + 1]$$

$$E_{ph} = [3 + 4k + k^2]$$

$$e_1 = \frac{E_{ph}}{3 + 4k + k^2}$$

$$e_2 = (1 + k) e_1 =$$

$$e_3 = (1 + 3k + k^2) e_1$$

$$c_1 \} e_1$$

$$\frac{1}{c} \times e_1 = \left(1 + \frac{c_1}{c}\right) e_1 = (1+k) e_1$$

$$e_2 = (1+k) e_1 \text{ --- (1)}$$

$$k(e_1 + e_2)$$

$$+ k[e_1 + (1+k)e_1]$$

$$+ k[1 + (1+k)] \} e_1$$

$$k + 2k + k^2 \} e_1$$

$$[3k + k^2] e_1 \text{ --- (3)}$$

$$E_{ph} = e_1 + e_2 + e_3$$

$$E_{ph} = e_1 + (1+k)e_1 + (1+3k+k^2)e_1$$

$$= [1 + 1+k + 1+3k+k^2] e_1$$

$$E_{ph} = [3 + 4k + k^2] e_1$$

$$e_1 = \frac{E_{ph}}{3 + 4k + k^2}$$

$$e_2 = (1+k)e_1 = \frac{(1+k) \times E_{ph}}{3 + 4k + k^2}$$

$$e_3 = (1+3k+k^2)e_1 = \frac{(1+3k+k^2) \times (1+k) E_{ph}}{(3 + 4k + k^2)}$$

ph

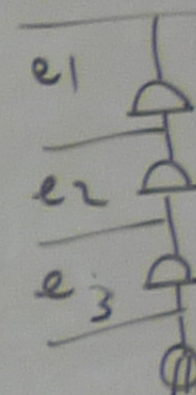
TRANSMISSION LINE WIRE IS
STRING COMPOSING OF 3 IN

IF LINE TO NEUTRAL VOLT

RATIO OF AIR CAPACITANCE

IS 7. CALCULATE THE

$$e_1 = ? \quad e_2 = ? \quad e_3 = ?$$



$$e_1 = \frac{E_{ph}}{3 + 4k + k^2}$$

$$e_2 = \frac{(1+k) E_{ph}}{3 + 4k + k^2}$$

$$e_3 = \frac{(1+3k+k^2) E_{ph}}{3 + 4k + k^2}$$

$e_2 + e_3$

$$e_1 + (1 + 3K + K^2) e_1$$

$$+ (1 + 3K + K^2) e_1$$

$$+ K^2 e_1$$

$$\frac{(1 + K) \times E_{ph}}{3 + 4K + K^2}$$

$$e_1 = \frac{(1 + 3K + K^2) \times (1 + K) \times E_{ph}}{(3 + 4K + K^2)}$$

ph

TRANSMISSION LINE WIRE IS SUPPORTED BY INSULATOR STRING COMPOSING OF 3 INSULATORS.

IF LINE TO NEUTRAL VOLTAGE IS 38 KV AND THE RATIO OF AIR CAPACITANCE AND INSULATOR CAPACITANCE IS 7. CALCULATE THE VOLTAGE ACROSS EACH INSULATOR.

$$e_1 = ? \quad e_2 = ? \quad e_3 = ?$$

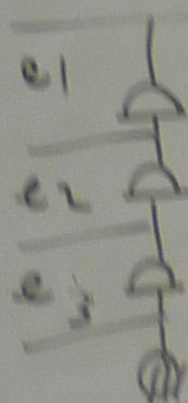
$$E_{ph} = 38 \text{ KV}, \quad K = 7$$

$$e_1 = \frac{E_{ph}}{3 + 4K + K^2} = \frac{38}{3 + 4 \times 7 + 7^2} = \frac{38}{80} = 0.475 \text{ KV}$$

$$e_2 = \frac{(1 + K) E_{ph}}{3 + 4K + K^2} = \frac{(1 + 7) \times 38}{3 + 4 \times 7 + 7^2} = 3.8 \text{ KV}$$

$$e_3 = \frac{(1 + 3K + K^2) (1 + K) E_{ph}}{3 + 4K + K^2} = \frac{(1 + 3 \times 7 + 7^2) (1 + 7) \times 38}{3 + 4 \times 7 + 7^2}$$

$$= 33.725 \text{ KV}$$



CREATE RISK MANAGEMENT PLAN

SELECT APPROPRIATE CONTROLS (OR) COUNTER MEASURES TO MEASURE EACH RISK.
RISK MITIGATION NEEDS TO BE APPROVED BY THE APPROPRIATE LEVEL OF MANAGEMENT.

THE RISK MANAGEMENT PLAN SHOULD PROPOSE APPLICABLE AND EFFECTIVE SECURITY CONTROL FOR MANAGING RISKS.

A GOOD RISK MANAGEMENT PLAN SHOULD CONTAIN A SCHEDULE FOR CONTROL IMPLEMENTATION AND RESPONSIBLE PERSONS FOR THOSE ACTIONS.

ACCORDING TO ISO/IEC 27001, THE STAGE IMMEDIATELY AFTER COMPLETION OF THE RISK ASSESSMENT PHASE CONSISTS OF PREPARING A RISK TREATMENT PLAN WHICH SHOULD DOCUMENT THE DECISIONS ABOUT HOW EACH OF THE IDENTIFIED RISKS SHOULD BE HANDLED.

IMPLEMENTATION

IMPLEMENTATION FOR THE EFFECT OF THE THAT HAVE BEEN RISK ALL RISKS TO ENTITY'S GOALS,

REVIEW AND EVALU

INITIAL RISK MAN PRACTICE, EXPERI CHANGES IN THE POSSIBLE DI WITH THE RISK

RISK ANALY

RISK ANAL SHOULD BE

MEASURES TO MEASURE EACH RISK.

THE APPROPRIATE LEVEL OF

APPLICABLE AND EFFECTIVE

CONTAIN A SCHEDULE
PERSONS FOR THOSE ACTIONS.

IMMEDIATELY AFTER
CONSISTS OF PREPARING
DOCUMENT THE
IDENTIFIED RISKS SHOULD

IMPLEMENTATION

IMPLEMENTATION FOLLOWS ALL OF THE PLANNED METHODS FOR MITIGATING THE EFFECT OF THE RISKS. PURCHASE INSURANCE POLICIES FOR THE RISKS THAT HAVE BEEN DECIDED TO BE TRANSFERRED TO AN INSURER, AVOID ALL RISKS THAT CAN BE AVOIDED WITHOUT SACRIFICING THE ENTITY'S GOALS, REDUCE OTHERS AND RETAIN THE REST.

REVIEW AND EVALUATION OF THE PLAN

INITIAL RISK MANAGEMENT PLANS WILL NEVER BE PERFECT. PRACTICE, EXPERIENCE AND ACTUAL LOSS RESULTS WILL NECESSITATE CHANGES IN THE PLAN AND CONTRIBUTE INFORMATION TO ALLOW POSSIBLE DIFFERENT DECISIONS TO BE MADE IN DEALING WITH THE RISKS BEING FACED.

RISK ANALYSIS

RISK ANALYSIS RESULTS AND MANAGEMENT PLANS SHOULD BE UPDATED PERIODICALLY.

THE REASONS

- TO EVALUATE WHETHER CONTROLS ARE STILL APPLICABLE
- TO EVALUATE THE POSSIBLE CHANGES IN THE BUSINESS ENVIRONMENT

LIMITATIONS

THERE IS DISTINCTION BETWEEN IDENTIFIED RISK AND MEASURABLE RISK. RISK CAN BE MEASURED ONLY IF RISKS ARE IMPROPERLY IDENTIFIED. TIME CAN BE WASTED ON IDENTIFYING RISKS THAT ARE NOT LIKELY TO OCCUR.

AREAS OF RISK MANAGEMENT

- CORPORATE FINANCE RISK, MARKET RISK, CREDIT RISK, LIQUIDITY RISK, OPERATIONAL RISK, COMPLIANCE RISK, REPUTATIONAL RISK
- SPECIFIED METHODS FOR IDENTIFYING RISKS
- REQUIREMENTS FOR RISK MANAGEMENT

KNOWN METHODS FOR MITIGATING
ANCE POLICIES FOR THE RISKS
ERRED TO AN INSURER,
THOUT SACRIFICING THE
TAIN THE REST.

EVER BE PERFECT.
RESULTS WILL NECESSITATE
FORMATION TO ALLOW
BE MADE IN DEALING

MANAGEMENT PLANS
ALLY.

THE REASONS

- TO EVALUATE WHETHER THE PREVIOUSLY SELECTED SECURITY CONTROLS ARE STILL APPLICABLE AND EFFECTIVE.
- TO EVALUATE THE POSSIBLE RISK LEVEL CHANGE IN THE BUSINESS ENVIRONMENT

LIMITATIONS

THERE IS DISTINCTION BETWEEN RISK AND UNCERTAINTY.
RISK CAN BE MEASURED BY $\text{IMPAIRS} \times \text{PROBABILITY}$.
IF RISKS ARE IMPROPERLY ASSESSED AND PRIORITIZED,
TIME CAN BE WASTED IN DEALING WITH RISK OF LOSSES
THAT ARE NOT LIKELY TO OCCUR.

AREAS OF RISK MANAGEMENT

- CORPORATE FINANCE, OPERATIONAL RISK, VALUE AT RISK, MARKET RISK, CREDIT RISK,
- SPECIFIED METHODS FOR CALCULATING CAPITAL REQUIREMENTS FOR EACH OF THESE COMPONENTS

ENTERPRISE	RISK MANAGEMENT
IN ENTERPRISE	RISK MANAGEMENT
OR CIRCUMSTANCE THAT CAN	ENTERPRISE IN QUESTION.
THE PRODUCTS,	SERVICE, EX-
INTEREST RATE	RISK, ASSET L
OPERATIONAL RISK.	
IN THE MORE GENERAL C	A PRE-FORMULATED PLAN TO
	PROJECT
IN PROJECT	MANAGEMENT
THE FOLLOWING ACTIVITIES	
- PLANNING	HOW RISK
PROJECT.	PLANS SHO
RESPONSIBILITIES, A	

ly SELECTED SECURITY
EFFECTIVE.

EL CHANGE IN THE

AND UNCERTAINTY.

X PROBABILITY.

ND PRIORITIZED,

TH RISK OF LOSSES

- RISK, VALUE AT

RISK,

TING CAPITAL

SE COMPONENTS

ENTERPRISE RISK MANAGEMENT

IN ENTERPRISE RISK MANAGEMENT, A RISK IS DEFINED AS A POSSIBLE EVENT OR CIRCUMSTANCE THAT CAN HAVE NEGATIVE INFLUENCES ON THE ENTERPRISE IN QUESTION.

THE PRODUCTS, SERVICE, EXTERNAL IMPACT ON SOCIETY, CREDIT RISK, INTEREST RATE RISK, ASSET LIABILITY MANAGEMENT, MARKET RISK, OPERATIONAL RISK.

IN THE MORE GENERAL CASE, EVERY PROBABLE RISK CAN HAVE A PRE-FORMULATED PLAN TO DEAL WITH ITS POSSIBLE CONSEQUENCES

PROJECT RISK MANAGEMENT

IN PROJECT MANAGEMENT, RISK MANAGEMENT SHOULD INCLUDE THE FOLLOWING ACTIVITIES

- PLANNING
PROJECT. HOW RISK WILL BE MANAGED IN THE PARTICULAR PLANS SHOULD INCLUDE RISK MANAGEMENT TASKS

RESPONSIBILITIES, ACTIVITIES AND BUDGET

- ASSIGNING THE RISK

- MAINTAINING LIVE PRO
EACH RISK SHOULD HA
ATTRIBUTES.

- OPENING DATE, T
PROBABILITY AND

- CREATING ANONY

- PREPARING MIT

- SUMMARIZING P
EFFECTIVENESS C
THE EFFORT S

RISK MANAGEM
DISASTERS

IT IS IMPOR

NATURAL DISAST

IS DEFINED AS A POSSIBLE EVENT
INFLUENCES ON THE

ON SOCIETY, CREDIT RISK,
EMENT, MARKET RISK,

POSSIBLE RISK CAN HAVE
ITS POSSIBLE CONSEQUENCES

AGEMENT

AGEMENT SHOULD INCLUDE

MANAGED IN THE PARTICULAR
RISK MANAGEMENT TASKS

BUDGET

— ASSIGNING THE RISK OFFICER

— MAINTAINING LIVE PROJECT RISK DATABASE.

EACH RISK SHOULD HAVE THE FOLLOWING
ATTRIBUTES.

— OPENING DATE, TITLE, SHORT DESCRIPTION,
PROBABILITY AND IMPORTANCE

— CREATING ANONYMOUS RISK REPORTING CHANNEL.

— PREPARING MITIGATION PLANS FOR THE RISKS

— SUMMARIZING PLANNED AND FACED RISKS,
EFFECTIVENESS OF MITIGATION ACTIVITIES &
THE EFFORT SPENT FOR THE RISK MANAGEMENT

RISK MANAGEMENT REGARDING NATURAL
DISASTERS

IT IS IMPORTANT TO ASSESS RISK IN REGARD TO
NATURAL DISASTERS LIKE FLOODS, EARTHQUAKES,

OUTCOMES OF NATURAL DISASTERS
ARE VALUABLE WHEN CONSIDER
BUSINESS INTERRUPTION LOSSES &
EFFECTS ON ENVIRONMENT, INS
PROPOSED COST TO REDUCING T

RISK OFFICER

PROJECT RISK DATABASE.

HAVE THE FOLLOWING

TITLE, SHORT DESCRIPTION,

AND IMPORTANCE

ANONYMOUS RISK REPORTING CHANNEL.

MITIGATION PLANS FOR THE RISKS

PLANNED AND FACED RISKS,

OF MITIGATION ACTIVITIES &

SPENT FOR THE RISK MANAGEMENT

MENT REGARDING NATURAL

IMPORTANT TO ASSESS RISK IN REGARD TO

DISASTERS LIKE FLOODS, EARTHQUAKES,

OUTCOMES OF NATURAL DISASTER RISK ASSESSMENT
ARE VALUABLE WHEN CONSIDERING FUTURE REPAIR COSTS,
BUSINESS INTERRUPTION LOSSES AND OTHER DOWNTIME,
EFFECTS ON ENVIRONMENT, INSURANCE COST AND
PROPOSED COST TO REDUCING THE RISK.