



NATIONAL POWER CORPORATION

CORPORATE PROCEDURE

NPC-009

Document Code

RISK/ OPPORTUNITY IDENTIFICATION, ASSESSMENT AND MANAGEMENT

Document Title

Revision No.: 0 Effectivity Date: JAN 13 2023

Prepared by : *Roel M. Manansala*
ROEL M. MANANSALA 12-1-2022
Chairperson, NPC Doc. Committee & Date
Manager, CRTDD-GSD *Jm Go*

Reviewed by : *Emmanuel A. Umali* 12-1-2022
EMMANUEL A. UMALI Date
NPC QMR/CRO & Manager, WMD-CAG

Manuel Luis B. Plofino 12/15/22
ATTY. MANUEL LUIS B. PLOFINO Date
Sr. Dept. Manager, RMS

Rogel T. Teves 12-22-22
ATTY. ROGEL T. TEVES Date
Vice President, PES

Larry I. Sabellina 12-16-22
LARRY I. SABELLINA Date
Vice President, SPUG


Edmundo A. Veloso, Jr. 12-14-22
EDMUNDO A. VELOSO, JR. Date
Vice President, MINGEN

Alexander P. Japon 12/14
ALEXANDER P. JAPON Date
Vice President, AFG

Rene B. Barruela 12-13-22
RENE B. BARRUELA Date
Vice President, CAG

Melchor P. Ridulme 12-20-22
ATTY. MELCHOR P. RIDULME Date
Vice President, OLC

Approved by : *Fernando Martin Y. Roxas* 12/28
FERNANDO MARTIN Y. ROXAS Date
President & CEO *FR*

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		Effectivity Date: January 13, 2023	

Document Title: RISK/ OPPORTUNITY IDENTIFICATION, ASSESSMENT AND MANAGEMENT

1. PURPOSE

This procedure provides a method for the following:

1. Identification of Internal and External Issues relevant to the Quality Management System
2. Identification of Interested Parties and their Requirements
3. Determination, assessment and management of risks and opportunities

2. SCOPE

This procedure covers the following:

1. All identified Internal and External Issues relevant to the Quality Management System
2. All identified Interested Parties and their Requirements
3. All activities, processes, events, factors, conditions, infrastructures and products that could become potential sources of risks and opportunities that are relevant to the Quality Management System

3. DEFINITIONS/ACRONYMS

3.1. Definitions

- 3.1.1. Consequence - outcome of an event affecting objectives which can be certain or uncertain, can have positive or negative effects on objectives and can be expressed qualitatively or quantitatively.
- 3.1.2. Control - measure that modifies risk/opportunity, which includes any process, policy, device, practice, or action that may not always exert the intended or assumed modifying effect.
- 3.1.3. Frequency - number of events or outcomes per defined unit of time, can be applied to past events or to potential future events, where it can be used as a measure of likelihood.
- 3.1.4. Likelihood - chance of something happening, whether defined,

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- 3.1.4. Likelihood - chance of something happening, whether defined, measured/determined objectively or subjectively, qualitatively or quantitatively and described using general terms or mathematically, such as a probability or a frequency over a given period.
- 3.1.5. Opportunity – a set of circumstances which makes it possible to do something new and beneficial.
- 3.1.6. Opportunity Action Plan – set of actions to make use of favorable circumstances that will facilitate the attainment of intended results.
- 3.1.7. Opportunity Analysis - process to comprehend the nature and level of opportunities. It provides the basis for evaluation and decisions/actions to pursue opportunities.
- 3.1.8. Opportunity Criteria - terms of reference against which the significance of the benefits of the opportunity is evaluated. The criteria are based on organizational objectives and external/internal context and can be derived from standards, laws, policies and other requirements.
- 3.1.9. Opportunity Identification - process of finding, recognizing and describing opportunities, identifying opportunity sources, areas of impacts, events, causes and possible benefits to form a comprehensive list of opportunities based on events that might facilitate, enhance, accelerate the achievement of intended results.
- 3.1.10. Opportunity Matrix - tool for ranking and displaying opportunities by defining ranges for benefits and likelihood.
- 3.1.11. Probability - measure of the chance of occurrence expressed as a number between 0 and 1, where 0 is impossibility and 1 is absolute certainty.
- 3.1.12. Residual Risk – risk remaining after risk treatment that can contain an identified risk.
- 3.1.13. Risk - the effect of uncertainty to the objective, often characterized with reference to potential events and consequences or a combination of these, often expressed in terms of combination of the consequences of an event (including changes in circumstances) and the associated likelihood of occurrence. The uncertainty is the state of deficiency of information related to understanding or knowledge of an event, its consequence, or likelihood.
- 3.1.14. Risk Acceptance - informed decisions to take a particular risk.

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- 3.1.15. Risk Analysis - process to comprehend the nature of risk and to determine the level of risk which includes risk estimation. It provides the basis for risk evaluation and decisions about risk treatment.
- 3.1.16. Risk Avoidance - informed decision not to be involved in, or to withdraw from an activity in order not to be exposed to a particular risk.
- 3.1.17. Risk Criteria - terms of reference against which the significance of a risk is evaluated. The criteria are based on organizational objectives and external/internal context and can be derived from standards, laws, policies and other requirements.
- 3.1.18. Risk Evaluation - process of comparing the results of risk analysis with risk criteria to determine whether the risk and/or its magnitude is/are acceptable or tolerable.
- 3.1.19. Risk Identification - process of finding, recognizing and describing risks, identifying risk sources, areas of impacts, events, causes and possible consequences to form a comprehensive list of risks based on events that might create, enhance, prevent, degrade, accelerate or delay the achievement of objectives. This involves historical data, theoretical analysis, informed and expert opinions, and stakeholders' needs.
- 3.1.20. Risk Matrix - tool for ranking and displaying risks by defining ranges for consequence and likelihood.
- 3.1.21. Risk/Opportunity Owner - person or entity with the accountability and authority to manage a risk/opportunity.
- 3.1.22. Risk/Opportunity Register - record of information about identified risks or opportunities
- 3.1.23. Risk Sharing - form of risk treatment involving the agreed distribution of risk with other parties.
- 3.1.24. Risk Treatment - process to modify risk, involves 1) avoiding the risk by deciding not to start or continue with the activity that gives rise to the risk; 2) taking or increasing risk in order to pursue an opportunity; 3) removing the risk source; 4) changing the likelihood; 5) changing the consequences; 6) sharing the risk with another party or parties (including contracts and risk financing) and 7) retaining the risk by informed decision. Risk treatments that deal with negative consequences are sometimes referred to as "risk mitigation", "risk elimination", "risk prevention" and "risk reduction". These can create

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new risks or modify existing risks.

3.1.25. Risk Treatment Plan - a detailed plan of action that describe the process to modify risk.

3.1.26. Secondary Risk - new risks that arise after implementing risk treatment/control.

3.2 Acronyms

3.2.1 FG - Functional Group

3.2.2 NPC - National Power Corporation

3.2.3 RM - Risk Management

3.2.4 ROM - Risk/Opportunity Management

3.2.5 SPUG - Small Power Utilities Group

3.2.6 WAT - Watershed Area Team

3.2.7 WMD - Watershed Management Department

4. REFERENCES

4.1. Philippine National Standard – ISO 9000:2015 Quality Management Systems, Fundamental and Vocabulary

4.2. Philippine National Standard – ISO 9000:2015 Quality Management Systems, Requirements

4.3. Risk Management Principles and Guidelines - ISO 31000:2009

4.4. Risk Management Vocabulary ISO Guide 73:2009

5. APPENDICES

5.1. NPC-009.F01A, External and Internal Issues

5.2. NPC-009.F01B, Needs and Expectations of Interested Parties

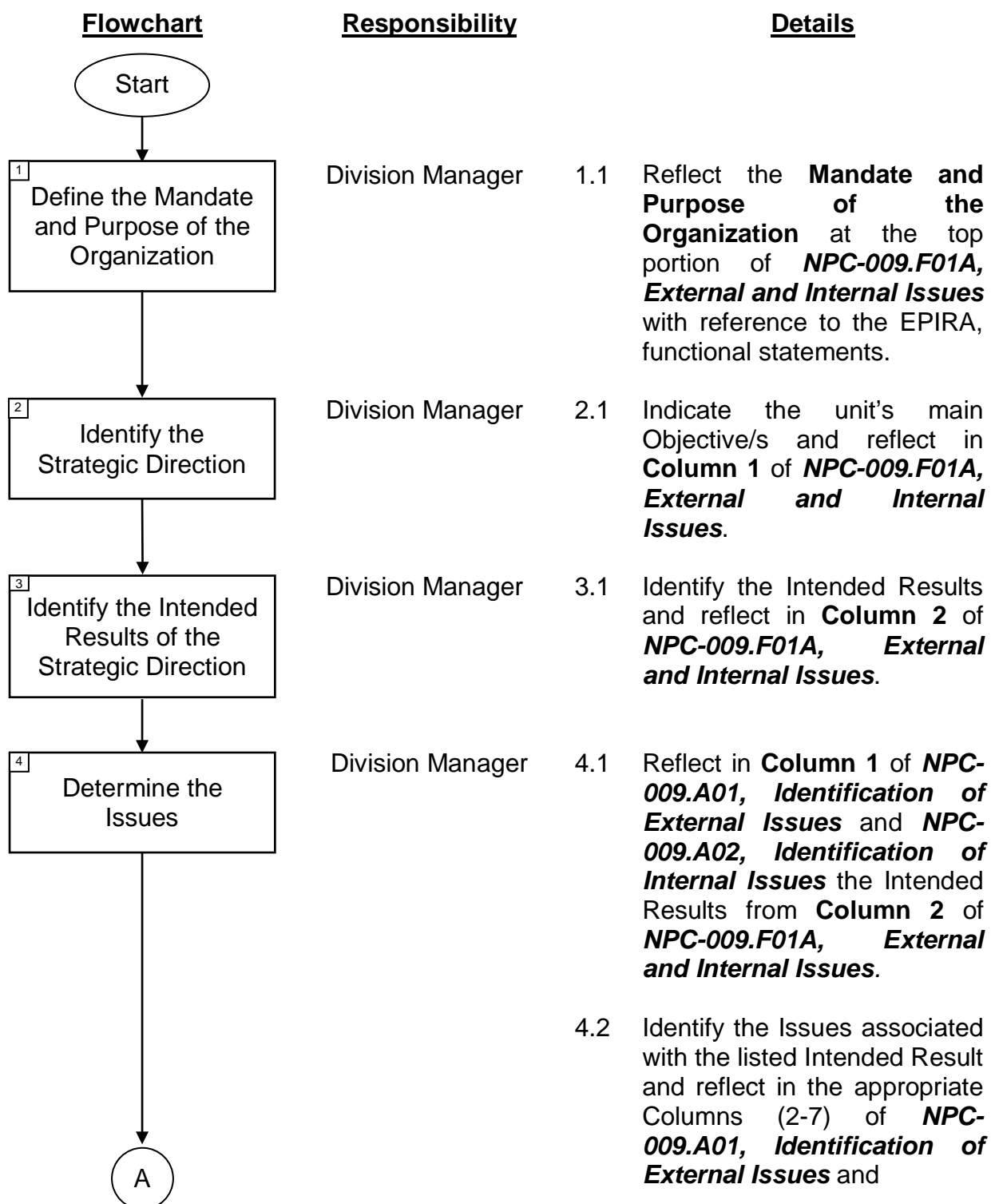
5.3. NPC-009.F02, Risk Registry

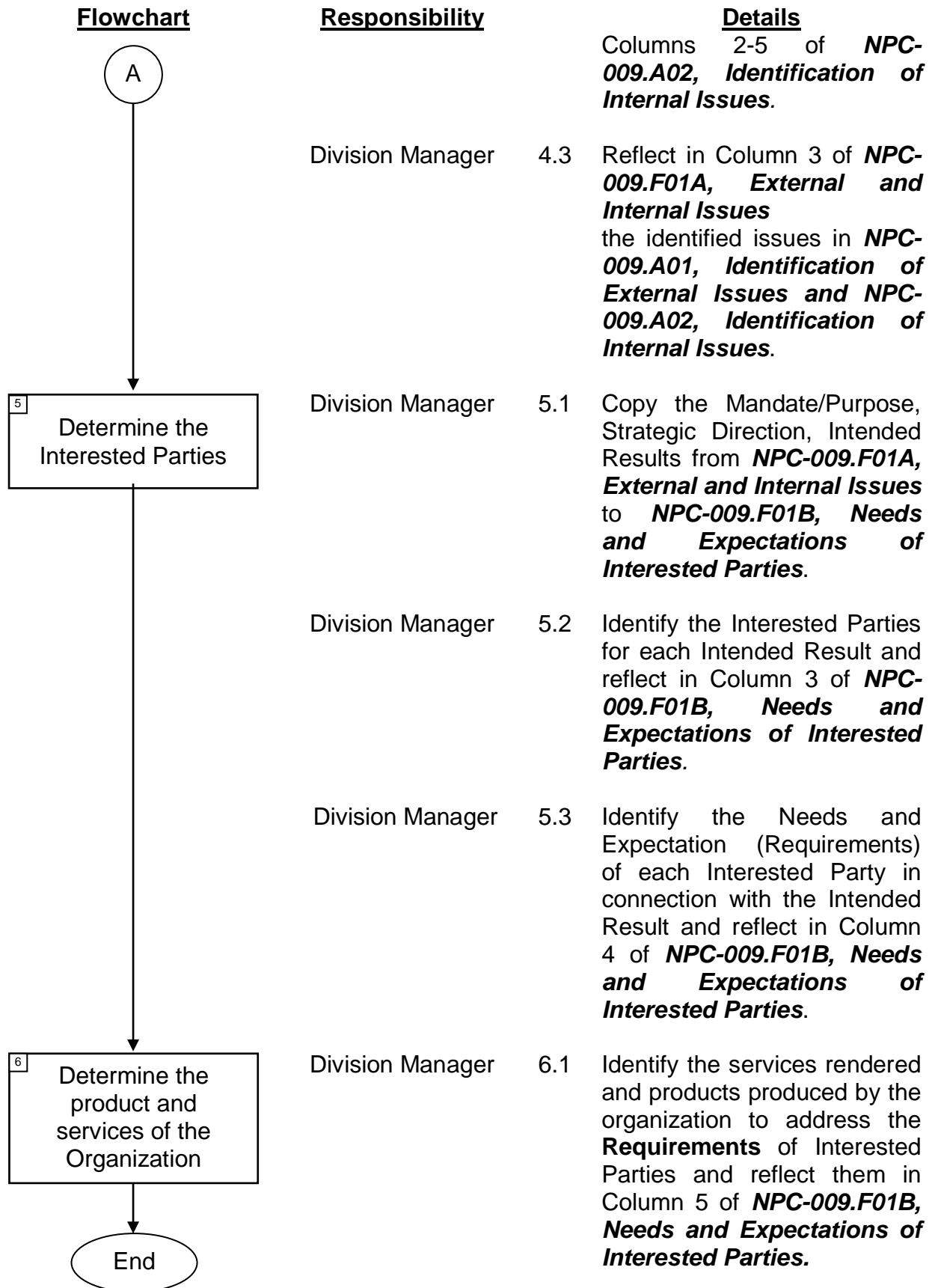
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- 5.4. NPC-009.F03, Risk Treatment Plan
- 5.5. NPC-009.F04, Risk Treatment Plan Monitoring and Review Sheet
- 5.6. NPC-009.F05, Opportunity Registry
- 5.7. NPC-009.F06, Opportunity Action Plan
- 5.8. NPC-009.A01, Identification of External Issues
- 5.9. NPC-009.A02, Identification of Internal Issues
- 5.10. NPC-009.A03, Criteria for Consequence Analysis
- 5.11. NPC-009.A04, Criteria for Determining Likelihood of Consequence
- 5.12. NPC-009.A05, Risk Analysis Matrix
- 5.13. NPC-009.A06, Risk Control Evaluation Matrix
- 5.14. NPC-009.A07, Risk Control Effectiveness Rating Scale
- 5.15. NPC-009.A08, Risk Treatment Matrix
- 5.16. NPC-009.A09, Criteria for Benefit Analysis
- 5.17. NPC-009.A10, Criteria for Determining Likelihood of Success
- 5.18. NPC-009.A11, Opportunity Analysis Matrix

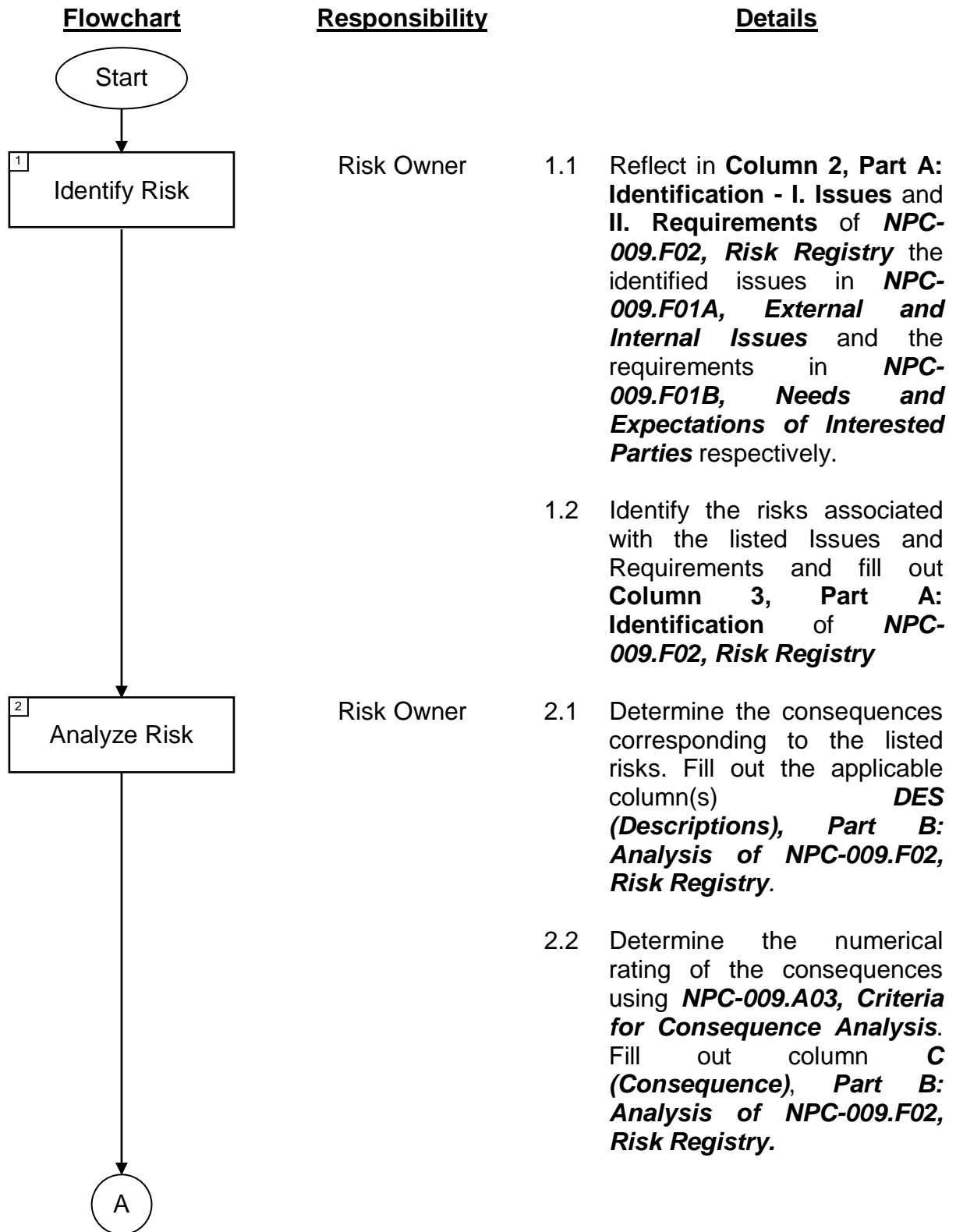
6.0 PROCEDURE

6.1 Determination of External/Internal Issues and Requirements of Interested Parties relevant to the QMS





6.2 Risk Management

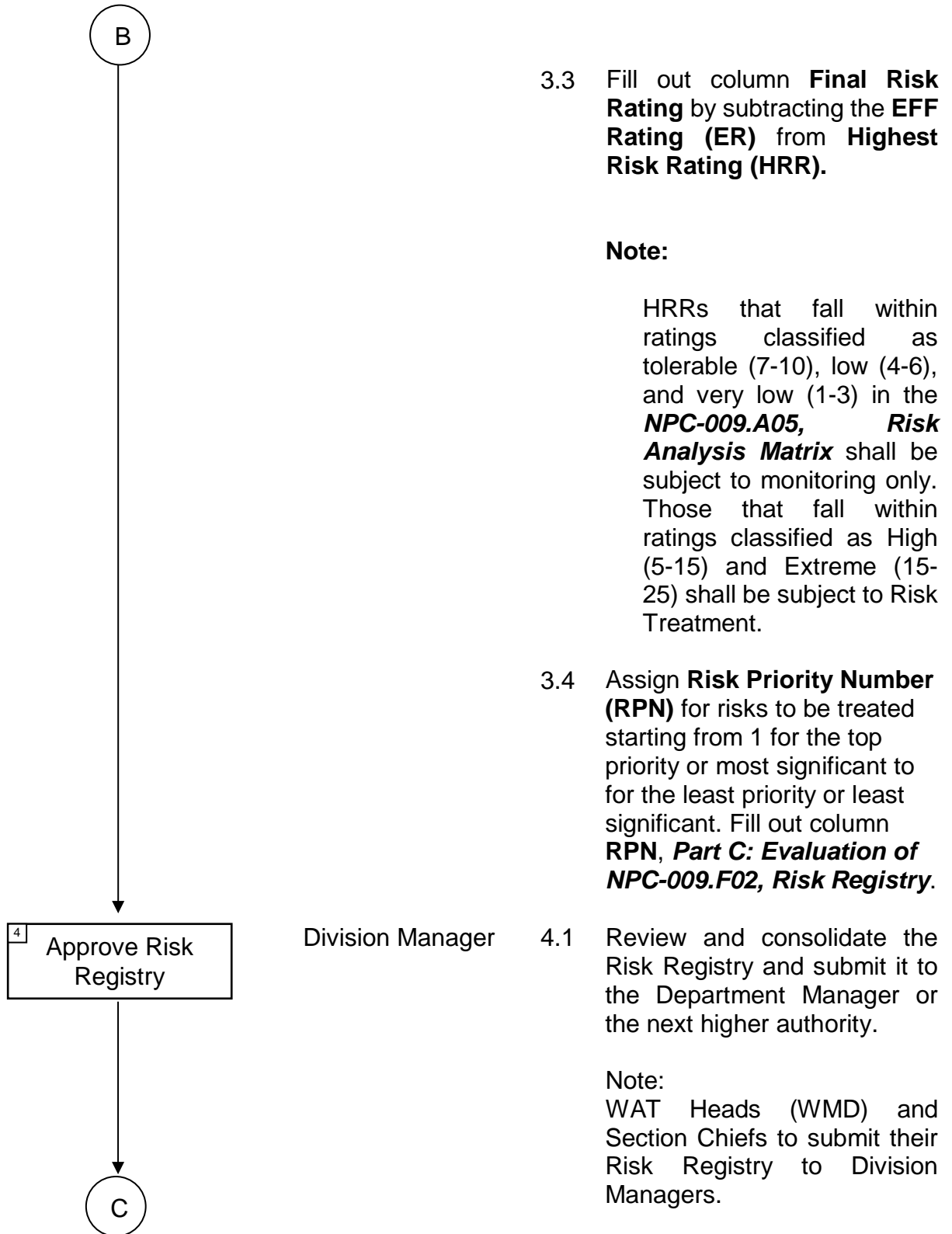


<u>Flowchart</u>	<u>Responsibility</u>	<u>Details</u>
<pre> graph TD A((A)) --> B[3 Evaluate Risk] B --> C((B)) </pre>	Risk Owner	<p>2.3 Determine the likelihood rating of the consequence using <i>NPC-009.A04, Criteria for Determining Likelihood of Consequence</i>. Fill out column <i>L (Likelihood)</i>, <i>Part B: Analysis of NPC-009.F02, Risk Registry</i>.</p> <p>2.4 Multiply <i>C</i> with <i>L</i> for each consequence to determine the <i>Risk Rating (RR)</i>.</p> <p>2.5 Reflect the area(s) of consequence with highest <i>RR</i> and the numerical and adjectival risk rating in the <i>Highest Risk Rating (HRR) Columns, Part B: Analysis of NPC-009.F02, Risk Registry</i> using <i>NPC-009.A05, Risk Analysis Matrix</i>.</p>
	Risk Owner	<p>3.1 List the existing risk controls in column <i>DES (Description)</i>, <i>Part C: Evaluation of NPC-009.F02, Risk Registry</i>.</p> <p>3.2 Determine the effectiveness of existing risk controls using <i>NPC-009.A06, Risk Control Evaluation Matrix</i> and <i>NPC-009.A07, Risk Control Effectiveness Rating Scale</i>. Fill out column <i>EFF Rating (Effectiveness Rating)</i>, <i>Part C: Evaluation of NPC-009.F02, Risk Registry</i>.</p>

Flowchart

Responsibility

Details



3.3 Fill out column **Final Risk Rating** by subtracting the **EFF Rating (ER)** from **Highest Risk Rating (HRR)**.

Note:

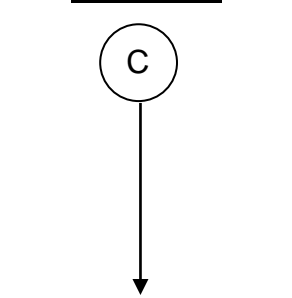
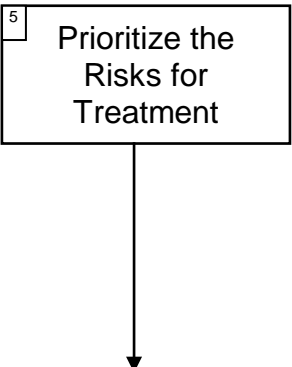
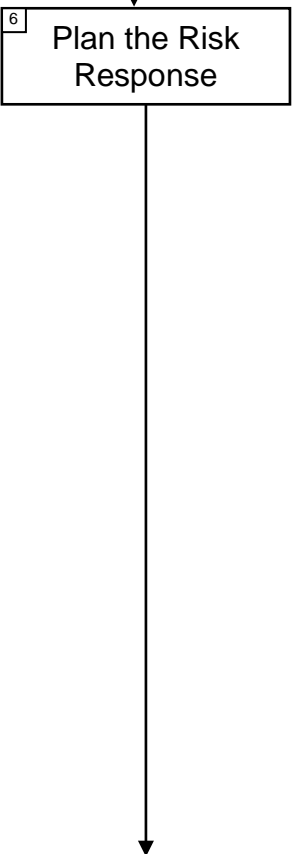
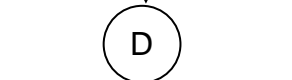
HRRs that fall within ratings classified as tolerable (7-10), low (4-6), and very low (1-3) in the **NPC-009.A05, Risk Analysis Matrix** shall be subject to monitoring only. Those that fall within ratings classified as High (5-15) and Extreme (15-25) shall be subject to Risk Treatment.

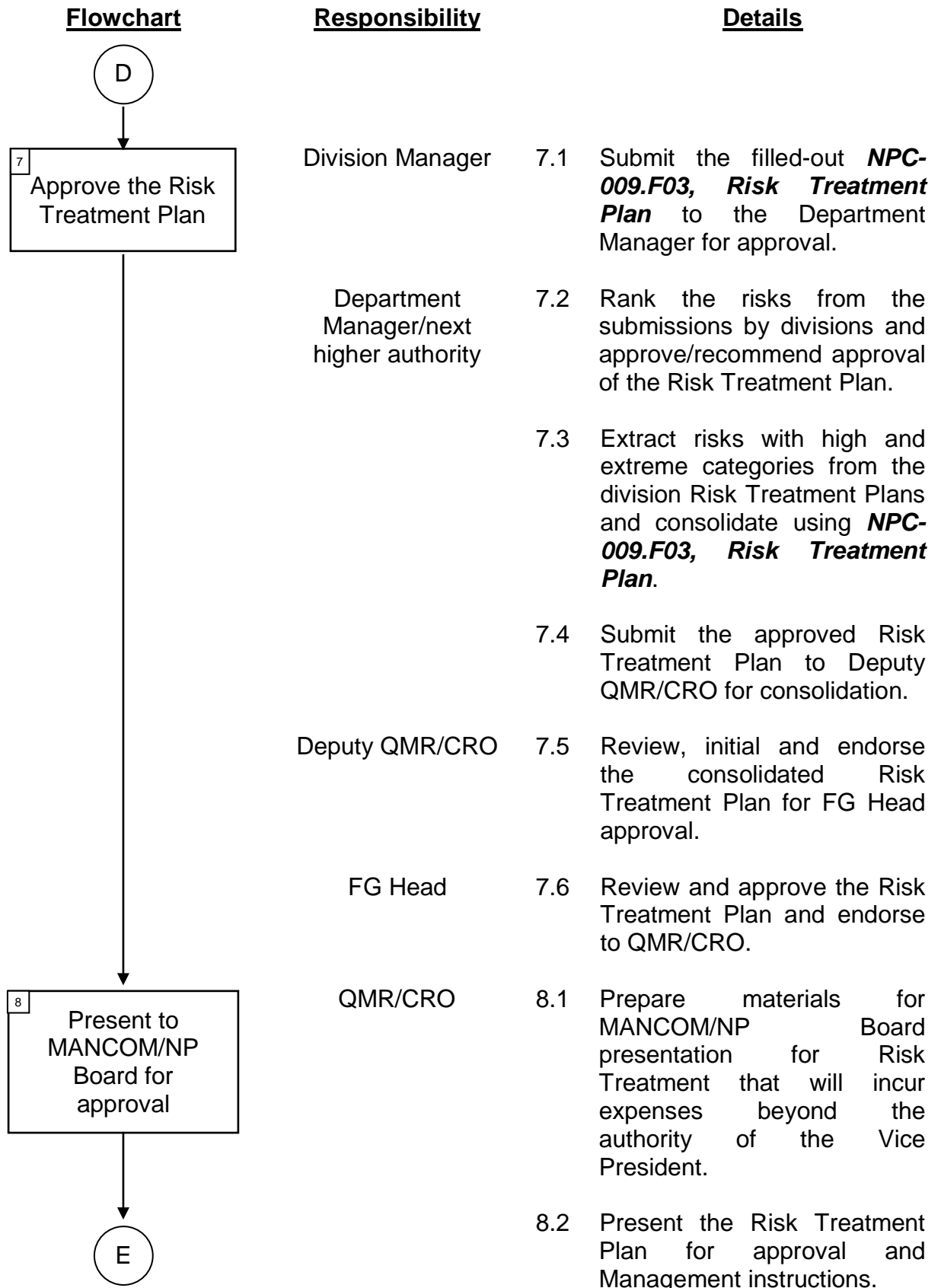
3.4 Assign **Risk Priority Number (RPN)** for risks to be treated starting from 1 for the top priority or most significant to for the least priority or least significant. Fill out column **RPN, Part C: Evaluation of NPC-009.F02, Risk Registry**.

4.1 Review and consolidate the Risk Registry and submit it to the Department Manager or the next higher authority.

Note:

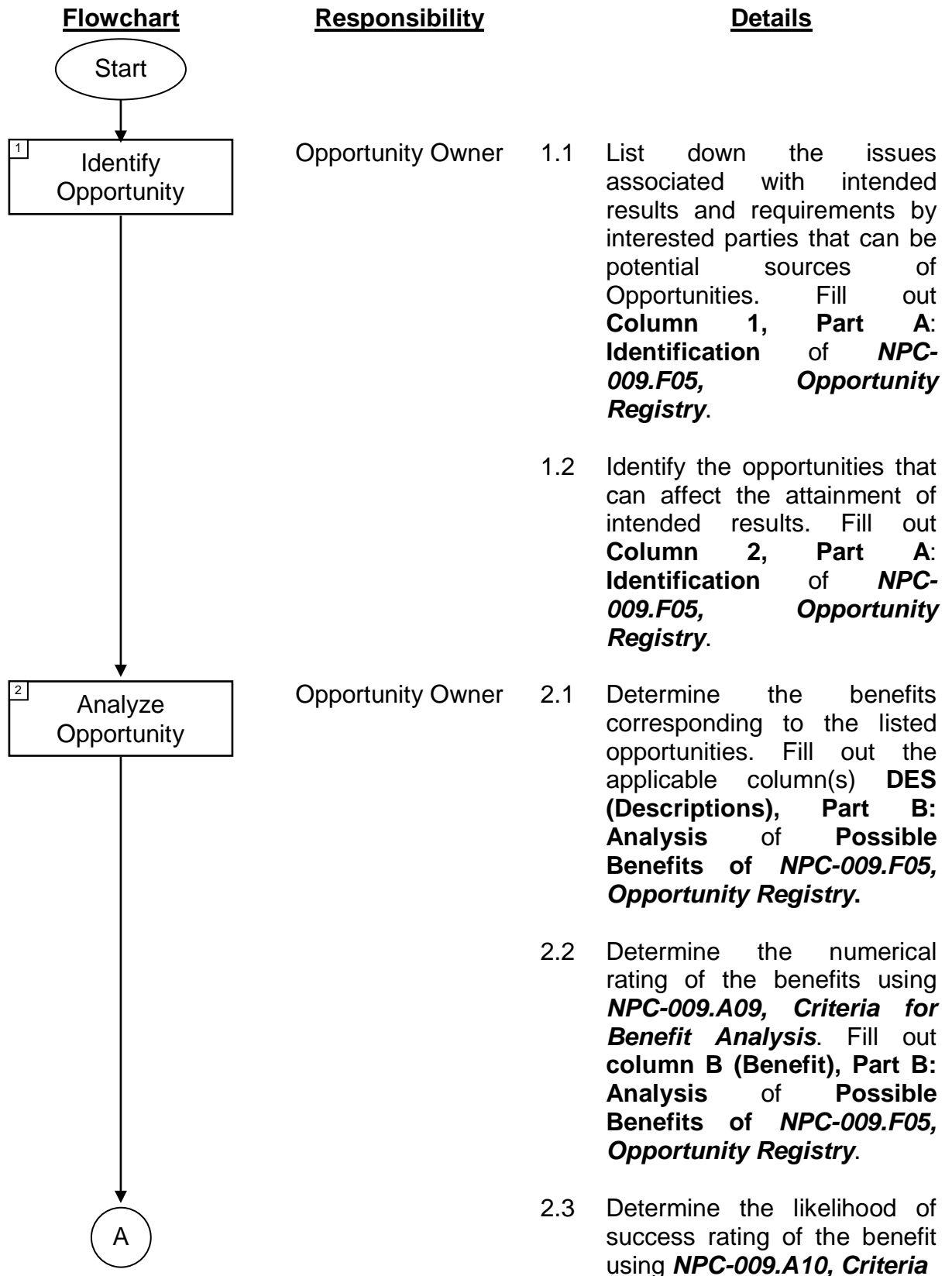
WAT Heads (WMD) and Section Chiefs to submit their Risk Registry to Division Managers.

<u>Flowchart</u>	<u>Responsibility</u>	<u>Details</u>
	<p>Department Manager/Next Higher Authority</p>	<p>4.2 Review and approve the consolidated Risk Registry and transmit to the concerned division.</p>
	<p>Division Manager</p>	<p>5.1 List the risks from the top priority (RPN 1) to least priority (RPN n), the Consequences and the Risk Ratings in Part A: Risk Attributes of <i>NPC-009.F03, Risk Treatment Plan</i> using the inputs in <i>NPC-009.F02, Risk Registry</i>.</p>
	<p>Division Manager</p>	<p>6.1 Select the best risk treatment options presented in <i>NPC-009.A08, Risk Treatment Matrix</i>.</p> <p>6.2 Identify the specific actions/controls, treatment period and the resource requirements (budget, manpower, equipment, etc.) and the target risk rating after treatment. Fill out Part B: Risk Response Plan of <i>NPC-009.F03, Risk Treatment Plan</i>.</p> <p>6.3 Identify the responsibility and frequency of monitoring/report. Fill out Part C: Monitoring and Control Plan of <i>NPC-009.F03, Risk Treatment Plan</i>.</p>
		



<u>Flowchart</u>	<u>Responsibility</u>	<u>Details</u>
<pre> graph TD E((E)) --> B9[9 Implement the Risk Treatment Plan] B9 --> B10[10 Monitor Implementation of the Risk Treatment Plan] B10 --> End([End]) </pre>	Division/ Department Manager/FG Head	9.1 Implement the approved Risk Treatment Plan. Note: Identify and analyze Residual and Secondary Risks, if any, and include them in the Risk Registry to determine the need for further treatment.
	Division/ Department Manager/FG Head	10.1 Monitor the implementation of the Risk Treatment Plan using <i>NPC-009.F04, Risk Treatment Plan Monitoring and Review Sheet.</i> Note: Monitoring should follow the frequency indicated in <i>NPC-009.F03, Risk Treatment Plan</i> and the results should be discussed in the Management/Operations Review as needed.

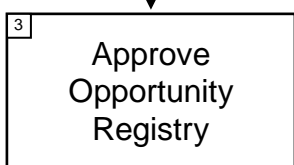
6.3 Opportunity Management



Flowchart

Responsibility

Details



for Determining Likelihood of Success. Fill out column L (Likelihood), Part B: Analysis of Possible Benefits of NPC-009.F05, Opportunity Registry.

2.4 Multiply **B** with **L** for each consequence to determine the **Opportunity Rating (OR)**. Reflect the area(s) of benefit with highest **OR** and the numerical and adjectival opportunity rating in the **Highest Opportunity Rating (HOR) Columns, Part B: Analysis of NPC-009.F05, Opportunity Registry** using **NPC-009.A11, Opportunity Analysis Matrix.**

2.5 Assign **Opportunity Priority Number (OPN)** for opportunities to be pursued starting from 1 for the top priority or most significant to n for the least priority or least significant. Fill out column **OPN, Part B: Analysis of NPC-009.F05, Opportunity Registry.**

Note:
Only Opportunities with Rating of High and Extreme (10-25) shall be considered for action.

Division Manager

3.1 Review and consolidate the Opportunity Registry and submit it to the Department Manager or the next higher authority.

<u>Flowchart</u>	<u>Responsibility</u>	<u>Details</u>
<pre> graph TD B((B)) --> Box[4 Formulate the Opportunity Action Plan] Box --> C((C)) </pre>		<p>Note: WAT Heads (WMD) and Section Chiefs to submit their Opportunity Registry to Division Managers.</p>
	Department Manager/Next Higher Authority	3.2 Review and approve the consolidated Opportunity Registry and transmit to the concerned division.
	Division Manager	4.1 List the opportunities with High and Extreme ratings (10-25) in Part A: Opportunities of NPC-009.F06, Opportunity Action Plan using the inputs in NPC-009.F05, Opportunity Registry .
	Division Manager	4.2 Identify the Specific Actions, Responsibility, Target Schedule and Resource Requirements (budget, manpower, equipment, etc.). Fill out Part B: Action Plan of NPC-009.F06, Opportunity Action Plan .
	Division Manager	4.3 Identify the Target Improvements, Responsible Person/s for Validation and Frequency of Monitoring during Implementation and fill out Part C: Evaluation and Monitoring Plan of NPC-009.F06, Opportunity Action Plan .

