

## 1. Purpose

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- 1.1. This procedure has been developed by MAS Solutions to define the controls necessary to analyze and evaluate potentially undesirable situations and to estimate the risk of their occurrence. This procedure also identifies techniques and tools used by MAS for risk identification, assessment, and mitigation.

## 2. Scope

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- 2.1. Risk management activities defined by this procedure may be applied at any level of the organization, based on the situation and risk under consideration.
- 2.2. The requirements of this procedure shall be applied as necessary to achieve desirable outcomes. Application of this procedure shall be at the direction of MAS' management.

## 3. Terms and Definitions

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- *Residual Risk*: Risks remaining after protective measures have been taken.
- *Risk*: Combination of the probability of occurrence of a negative outcome and the severity of that outcome.
- *Risk Analysis*: Systematic use of available information to identify potentially undesirable situations and to estimate the risk.
- *Risk Assessment*: Overall process comprising a risk analysis and risk evaluation.
- *Risk Control*: Process through which decisions are reached and protective measures are implemented for reducing risks to, or maintaining risk within, specified levels.
- *Risk Evaluation*: Judgment, on the basis of risk analysis, of whether a risk which is acceptable has been achieved in a given context.
- *Risk Management*: Systematic application of management policies, procedures and practices to the tasks of analyzing, evaluating and controlling risk.
- *Safety*: Freedom from unacceptable risk.
- *Severity*: Measure of the possible consequences of a potentially undesirable situation.

## 4. Risk Management Process

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- 4.1. MAS has established and maintains a process for identifying potentially undesirable situations associated with the provision of services, estimating and evaluating the associated risks, controlling these risks and monitoring the effectiveness of the control. This risk management process includes the following elements:
- Risk Analysis

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- Risk Evaluation
- Risk Control
- Post- process Information

## **5. Risk Analysis Process**

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- 5.1. Risk Analysis shall be performed using a risk management plan that has been approved by the Management Representative or responsible manager. This plan shall include the system used for qualitative or quantitative categorization of probability estimates and determining their severity level (see example, Appendix A).
- 5.2. MAS shall use all available information and data to estimate the risk(s) for each potentially undesirable situation. MAS shall record this estimation of the risk as part of the risk assessment file.

## **6. Risk Evaluation and Control**

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- 6.1. MAS shall use the criteria defined in the risk management plan to estimate the significance of each identified potentially undesirable situation (see example, Appendix A).
- 6.2. MAS shall identify risk control measures that are appropriate for reducing identified risks to an acceptable level. MAS shall then implement the risk control measure(s) selected, and shall verify the effectiveness of any measures taken.

## **7. Residual Risk Evaluation**

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- 7.1. MAS shall use the criteria defined in the risk management plan to evaluate any residual risk that remains after application of risk control measure(s). MAS shall apply further risk control measures if the residual risk does not meet the criteria.
- 7.2. MAS shall document all relevant information necessary to explain the residual risk(s) if the residual risk is judged acceptable.

## **8. Opportunities**

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- 8.1. The methods specified above may also be used for determining opportunities related to this BMS and its processes. Where such opportunities are identified, they should be noted as such as part of the final risk assessment report, and action taken as appropriate.

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- 8.2. Such opportunities shall also be considered as part of the organizations' annual Management Review process.

## 9. Records

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- 9.1. MAS shall maintain the following records as part of each risk management file:
- A copy of the risk analysis plan used, including the product or process analyzed, identification of the person(s) carrying out the analysis, and the analysis date;
  - Records relating to the risk analysis process used, including techniques, methods and criteria;
  - Results of the risk analysis performed;
  - Records related to any options determined, as well as their implementation and verification; and
  - Any contingency plans developed as a result of the risk assessment.

## 10. Revision History

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| Revision | Date     | Description of Change | Approval |
|----------|----------|-----------------------|----------|
| 0        | 11/01/15 | Initial Release       | SR       |
|          |          |                       |          |
|          |          |                       |          |
|          |          |                       |          |

**Appendix A (Example)**

**Table 1**  
**Evaluating Risk Likelihood and Consequence**

| Likelihood of Occurrence | Consequence if Event Occurs |            |               |            |                   |
|--------------------------|-----------------------------|------------|---------------|------------|-------------------|
|                          | Insignificant<br>1          | Minor<br>2 | Moderate<br>3 | Major<br>4 | Catastrophic<br>5 |
| Frequently<br>5          |                             |            |               |            |                   |
| Likely<br>4              |                             |            |               |            |                   |
| Moderate<br>3            |                             |            |               |            |                   |
| Unlikely<br>2            |                             |            |               |            |                   |
| Improbable<br>1          |                             |            |               |            |                   |

**Table 2**  
**Determining the Need for Control**

|             |  |
|-------------|--|
| <b>High</b> | <b>Unacceptable Risk:</b> Update product or process design, add additional controls, review adequacy of current controls |
| <b>Med</b>  | <b>Investigate further risk controls:</b>  |
| <b>Low</b>  | <b>Risk is acceptable:</b> No further risk controls required   |

**Table 3**  
**Definitions**

| Probability (Occurs) |          | Consequence          |                  |
|----------------------|----------|----------------------|------------------|
| <b>Frequently</b>    | Weekly   | <b>Catastrophic</b>  | Lawsuit          |
| <b>Likely</b>        | <90 Days | <b>Major</b>         | Refund           |
| <b>Moderate</b>      | >90 Days | <b>Moderate</b>      | Complaint        |
| <b>Unlikely</b>      | >1 yr.   | <b>Minor</b>         | Delay (>15 days) |
| <b>Improbable</b>    | >5 yr.   | <b>Insignificant</b> | Delay (<15 days) |

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