

HAZARD IDENTIFICATION AND RISK ASSESSMENT

REPORT

**Purpose:**

Assessing Risks to Additional capability of Overhaul Life Preserver & Inspect/Test Firext - CGK.

Batam Aero Technic Safety Department

2023

**Preamble**

Batam Aero Technic Safety Department is the department responsible of the development, implementation and follow-up of the Safety Management System of Batam Aero Technic to fulfil management of change demand with the new organization structure.

BAT Safety Department has set safety objective related to the main safety hazard identified and risk assessment that may affect the maintenance and continuing airworthiness management operations.

This Hazard Identification and Risk Assessment (HIRA) purposes is to identify hazard might potentially occur and to assess risk to for capability development in the Additional capability of Overhaul Life Preserver & Inspect/Test Firext at CGK. refer to BT-CM-01-04 ( Capability List). Assessment is carried out in sections:

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| **No.** | **Description** | **Part Number** | **Manufacture** | **Capability Proposed & Location** |
| 1. | Life Preserver | S-21000- () Series | Switlik 25-60-200 | Overhaul (Slide & Vest Shop BTH & CG K) |
| 2. | Life Preserver | -S-10000- () Series  -S-10002- () Series | Switlik 25-60-192  Switlik 25-61-17 | Overhaul (Slide & Vest Shop BTH & CG K) |
| 3. | Life Jacket | - 210224-0,  - 210225-Series  - 210228-0 | Zodiac Aerospace  25-65-09 | Overhaul (Slide & Vest Shop BTH & CG K) |
| 4. | Infant- Small Child Life Jacket | * 216200-0 | Zodiac Aerospace  25-65-03 | Overhaul (Slide & Vest Shop BTH & CG K) |
| 5. | Flotation Vest | - 3500-Series | Hoover Industries  25-60-02 | Overhaul (Slide & Vest Shop BTH & CG K) |
| 6. | Firext Container | - A829700-SERIES | Kidde Aerospace & Defense 26-21-42 | Inspection /Test (Gas Shop BTH & CGK) |

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| **No.** | **Description** | **Part Number** | **Manufacture** | **Capability Proposed & Location** |
| 7. | Firext Container | - A829700-SERIES | Kidde Aerospace & Defense 26-21-42 | Inspection /Test (Gas Shop BTH & CGK) |
| 8. | Firext Container | - 472625-SERIES | Kidde Aerospace & Defense 26-20-85 | Inspection / Test (Gas Shop BTH & CGK) |
| 9. | 630 Cubic Inch Firext | - 34600028-SERIES | Pacific Scientific / Meggit 26-22-40 | Inspection / Test (Gas Shop BTH & CGK) |
| 10. | 1. bic Inch Firext | * 34500063-SERIES | Pacific Scientific / Meggit 26-24-21 | Inspection / Test (Gas Shop BTH & CGK) |
| 11. | 72 Cubic Inch Firext | - 33007504,  - 33007505  - 33007505 | Pacific Scientific / Meggit 26-20-11 | Inspection/ Test (Gas Shop 8TH & CGK) |
| 12. | Firext Container | - 475976-1 | Kidde Aerospace & Defense 26-22-75 | Inspection/ Test (Gas Shop 8TH & CGK) |
| 13. | 378 Cubic Inch Firext | - 34000055-7 | Pacific Scientific / Meggit 26-24-16 | Inspection /Test (Gas Shop 8TH & CGK) |
| 14. | 800 Cubic Inch Firext | - 34600010-SERIES | Pacific Scientific / Meggit 26-23-21 | Inspection/ Test (Gas Shop 8TH & CGK) |
| 15. | Lavatory Firext | - 30100022-SERIES | Pacific Scientific / Meggit 26-25-04 | Inspection /Test (Gas Shop 8TH & CGK) |
| 16. | Firext Container | - 4190-SERIES | Pacific Scientific / Meggit 26-20-02 | Inspection/ Test (Gas Shop 8TH & CGK) |
| 17. | Alternative Firext | - P3APP003010A,  - P3APP0030108  - P3APP003010C | Umlaut Engineering GmbH. 26-24-02 | Inspection/ Test (Gas Shop 8TH & CGK) |
| **No.** | **Description** | **Part Number** | **Manufacture** | **Capability Proposed & Location** |
| 18. | Halon 1211 Firext | - Model 600 % 695 | Amerex Manual 05606 | nspection/ Test (Gas Shop 8TH & CGK) |
| 19. | Portable Halon 1211 Firext | - Model -A344, C352, C354,  - 8355, 361,  - 8369, 371,372 | Amerex Manual 05604 | Inspection/ Test (Gas Shop 8TH & CGK) |

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**1. Introduction**

Hazard Identification and Risk Assessment are crucial to understand the practical threats that may exist in Batam Aero Technic organization. It is essential that these two processes are part of our organization’s Safety Management System so that the acceptable level of risk can be achieved.

It is a company policy to undertake a Risk Assessment prior to the implementation of any major changes potentially affecting the safety of operations in order to demonstrate that the changes meet an acceptable level of safety. On Risk Assessment, the possible threats will be analyzed and broken down to its root cause, and proper mitigation action to lower the risk will be applied throughout the operation of the organization. These steps are the core of the implementation of Safety Management System (SMS).

**2. Objective of Risk Management**

The objective of the Hazard Identification and Risk Assessment is to assess level of risk the company may face when some changes may be implemented.

These objectives may be separated in two sub goals:

1. To make the personnel involved during the HIRA process aware of the consequences and possible threats they may face during repairs and function tests

2. Implement to mitigate risks and their potential threats.

**3. Risk Assessments Method and Limitation**

The method of this Risk Assessment is refers to Chapter 4.2 of BAT SMS Manual (DOC NO: BT-CM-01.02). The methods are generally defined into these steps:

1. Hazard Identification for specific scope in the Additional capability of Overhaul Life Preserver & Inspect/Test Firext - CGK.
2. Risk Assessment for each specific possible threat with reference to the SMS Manual hierarchy system.
3. Defining the proper risk mitigation action plan for each issue so that the acceptable level of safety can be achieved.
4. Implementation of the mitigation action to all respective units concerned with each specific issue.
5. This HIRA is restricted to perform for Additional capability of Overhaul Life Preserver & Inspect/Test Firext - CGK.

**4. Hazard Identification and Risk Assessment Summary**

**4.1 Risk Identification and Analysis**

**4.1.1 Identified Component of Hazard and Its Risk**

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| **No.** | **Hazard Identification** | **Associated Risk** | **Consequences** |
| 1. | There are only 6 personnel who  carry out repairs of Overhaul Life Preserver & Inspect/Test Firext- CGK. | * The personnel will be fatigue. * Not achieving the target completion. | * Sick personnel |
| 2. | Inadequate room temperature and humidity. | * Room temperature is not maintained - hot | * Materials and tools may be damaged |

**4.1.2 Risk Analysis and Mitigation Action**

| **No** | **Hazard Identification** | **Associated Risk** | **Consequences** | **Risk Assessment** | | | **Risk Mitigation** | **Residual Risk** | | | **PIC** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Probability** | **Severity** | **Risk Index** | **Probability** | **Severity** | **Risk Index** |
| 1. | There are only 6 personnel who carry out repairs of Overhaul Life Preserver & Inspect/Test Firext-CGK. | * The personnel will be fatigue * Not achieving the target completion | * Sick personnel | 3 | C | **3C** | 1. personnel who perform repairs adequate rest and sleep. 2. Adequate work schedule. | 1 | D | 1D | PIC Emeq Shop. |
| 2. | Inadequate room temperature and humidity. | * Room temperature is not maintained - hot | * Materials and tools may be damaged | 3 | D | **3D** | * Install and place air conditioners and room temperature gauges | 2 | E | 2E | PIC Emeq Shop. |

**5. Conclusion**

* Based on the Hazard Identification Risk Assessment result, Additional capability of Integrated Standby Flight Display (ISFD) at Electrical Shop –CGK is ***acceptable.***
* Project leader shall conduct safety briefing to the personnel involved during this HIRA process before Additional capability of Overhaul Life Preserver & Inspect/Test Firext – CGK is carried out, therefore all personnel will be more aware of the consequences and their possible threats for the repair and functional test.
* With correct risk control and mitigation, all identified risks are managed to acceptable level. All concerned directorates are in charge of the application and periodic monitoring.

BAT Safety department will provide continuous monitoring through the company Safety Management System.

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