

LLOYD'S MARKET ASSOCIATION



**KEY INFORMATION GUIDELINES FOR  
OIL, GAS & PETROCHEMICAL GROUP-WIDE  
BUSINESS INTERRUPTION STUDIES**

#### **ACKNOWLEDGEMENTS:**

This document was originally developed by Michel Krenzer (SCOR, London), Steve Sykes (Talbot Underwriting Ltd, London), Paul Sankey (Liberty Specialty Markets, London), Andy Goddard (AIG, London) and Ian Clarke (Swiss Re, London) with contributions from the London market engineers within the LMA Onshore Energy Business Panel Engineering Sub-Group.

If there are any technical queries regarding this document please contact the LMA ([dele.fajimolu@lmalloyds.com](mailto:dele.fajimolu@lmalloyds.com)).

#### **DISCLAIMER**

Nothing in this document, which is entirely voluntary, shall relieve any party of any legal obligations existing in the absence of this document and nothing contained in this document shall take precedence over any provisions of any policy issued by a party who has chosen to adopt these Guidelines.

In the event that the risk engineering service provider is unable to follow one or more of the particulars set out in this document, they should discuss possible alternatives with the (Re)Insurer(s).

<b>Document Revision History</b>		
<b>Version</b>	<b>Author</b>	<b>Date of Revision</b>
2024/001	LMA Onshore Energy Business Panel BI Study Sub-Group	12/12/2024

## Purpose

- 0.1. The purpose of this document is to outline the key information identified as important for inclusion in oil, gas & petrochemical **group-wide** business interruption (BI) studies.
- 0.2. Group-wide BI studies are designed to help (Re)Insurers understand BI exposures and potential mitigation at the *group level* including interdependencies between different locations in order to gain an understanding of the BI exposures in the event of a significant loss. These studies would also prove of benefit to the (Re)Insured.

## 1. Scope

- 1.1. This document is intended to provide a group-level BI assessment and therefore necessitates an overall view of the company interactions. It remains important that the site-level BI assessment be addressed by the site-level risk engineering survey reports produced in line with LMA IGRES 2024/001.
- 1.2. The loss scenarios requested in Section 6 are the most relevant to (Re)Insurers and therefore should form the majority of the study. The information requested in Sections 3, 4 and 5 provides useful background but should be kept relatively high-level and not repeat information already provided as part of a site-level risk engineering survey (unless required in context).

## 2. General Principles

### 2.1. Applicability

- 2.1.1. A group-wide BI study is mostly only required where the (Re)Insured is seeking BI cover for multiple locations and where there are significant interdependencies and/or where BI considerations are sufficiently complex.
- 2.1.2. A group-wide BI study should only be undertaken with the agreement of all parties, being the (Re)Insured, broker and Lead (Re)Insurers. It is recommended that the party undertaking the study discusses the proposed content with the Lead (Re)Insurer(s).
- 2.1.3. A group-wide BI study should only typically be undertaken where site-level risk engineering survey reports have been produced in line with LMA IGRES 2024/001.

### 2.2. Quantification of BI Loss

- 2.2.1. Quantification of BI loss for a given scenario should utilise the base case developed by the (Re)Insured using in-house modelling tools (e.g. linear programming). This will likely necessitate access to group Finance and Planning departments.

### 2.3. Mitigation

- 2.3.1. Where the term mitigation is used in this document, (Re)Insurers expect comment not only on whether the ability to mitigate an event exists but on the specific details of the potential mitigation including, for example:
- (a) whether and how the mitigation has been tested, simulated and/or implemented.
  - (b) whether the mitigation would be effective for the duration of the type of scenario being considered in the study (see Section 6.2);
  - (c) whether the mitigation includes any contractual agreement(s) (e.g. there is a contract in place with a third-party guaranteeing the ability to purchase alternative feedstock);
  - (d) whether the mitigation relies on spare parts which are identified and held at the specific location (rather than spare parts expected to be available);
  - (e) an assessment of the volume of replacement feedstock(s) or finished product(s) available, including whether this assessment has been validated/tested;
  - (f) the implications of the mitigation on any additional costs necessary to maintain the business, such as increased transport costs and/or feedstock prices should be estimated, while it is appreciated these costs are often difficult to predict pre-loss.

### **3. Operations**

#### **3.1. Group Block Flow Diagram**

- 3.1.1. The Group Block Flow Diagram will depend on the account complexity, but should identify the process from feedstock(s) to finished product(s) across the key business units indicating:
- (a) the critical process units at each of the insured locations;
  - (b) the critical feedstock(s), intermediates and finished product(s) along with the respective mode(s) of transportation;
  - (c) critical utilities;
  - (d) critical interdependencies;
  - (e) flowrate(s) of critical streams between insured locations.
- 3.1.2. Provide information in respect of any major planned changes to the Block Flow Diagram. For example construction of new plants and/or process units, shutdown of existing plants and/or process units as well as changes to customers and suppliers.

### 3.2. Critical Third-Party Suppliers and Customers

- 3.2.1. List critical third-party suppliers (including the product supplied, the quantity, their location and the (Re)Insured's dependency upon those suppliers) and any mitigation available in the event that they cannot supply.
- 3.2.2. List critical third-party customers (including the product supplied to them, the quantity, their location and the original insured's dependency upon those customers) and any mitigation available in the event that they cannot purchase.
- 3.2.3. List critical utility service providers (such as power, steam, water, process gases) including their location and the (Re)Insured's dependency upon those customers and any mitigation available in the event that they cannot provide those services.

### 3.3. Interdependency

- 3.3.1. List all critical interdependencies (including the extent of the interdependency) within the group and any mitigation in the event that they are affected by incidents at insured location(s).

### 3.4. Capacity Utilisation

- 3.4.1. Provide details of the current design and operating capacity of all units listed in the Group Block Flow Diagram and, where applicable, identify other plants which could make-up any shortfall in production.

### 3.5. Business Interruption Incident History

- 3.5.1. This should include any incidents (whether involving physical damage or not) which caused a significant interruption of the business across multiple operational sites, including those which did not lead to a (re)insurance claim.
- 3.5.2. Details of each incident should include:
  - (a) the date of the incident;
  - (b) a brief description of the incident;
  - (c) the gross and net loss (if insured);
  - (d) where applicable, any mitigations and their impact.

### 3.6. Business Continuity Plan (BCP)

- 3.6.1. Provide details of any group level BCP (where possible - it is recognised in some cases these are restricted documents) in relation to response to a significant property damage event.
- 3.6.2. Detail assumptions used in the development of the BCP, including any accreditations (e.g. ISO27001, ISO22301).

- 3.6.3. Describe the review and testing schedule for BCP.
- 3.6.4. Provide any examples of incidents where the BCP has been invoked and had an impact.
- 3.6.5. Comment on the practicality and adequacy of the BCP.

#### **4. Commercial**

##### **4.1. Commercial Overview**

- 4.1.1. Describe in general terms the group-wide business model, including internal structure and the basis on which the group operates.

##### **4.2. Contractual Arrangements**

- 4.2.1. Provide information on the proportion of feedstock and finished product(s) bought and sold under:
  - (a) Long-term (24 month or more) contracts.
  - (b) Take-or-pay contracts.
  - (c) Tolling basis or other similar remuneration schemes.
  - (d) Minimum volume contracts.
  - (e) Contracts including force majeure provisions.

##### **4.3. Margins and Pricing**

- 4.3.1. Where possible (e.g. not excluded by NDA), provide a list of average monthly margin(s) achieved on finished product(s), including the original insured's assessment of which point in the market cycle these margins relate to and the highest average annual margin achieved (including the date) in the last three years.
- 4.3.2. Describe whether each finished product is considered to be a commodity (i.e. easily replaceable by, and readily available to, a customer).
- 4.3.3. Identify, if known, any (re)insured plants which would benefit from increased finished product(s) prices in the event of an incident at another (re)insured plant along with a qualitative assessment of the implications.

##### **4.4. Future plans**

- 4.4.1. Provide information on material changes planned.

#### **5. Business Interruption Values**

- 5.1. Provide BI values broken down by location.

- 5.2. Provide commentary on the methodology used to calculate the declared values and verify this is consistent with the basis of indemnity within the policy wording.
- 5.3. Provide commentary on the adequacy of the values declared.
- 5.4. Where possible, split the BI values at each location by the contribution value of each critical process unit at that location

## **6. Business Interruption Loss Scenarios**

- 6.1. The BI loss scenarios should be based on the scenarios identified during the site-level risk engineering surveys in line with Section 10.2 of the Key Information Guidelines for Oil, Gas & Petrochemical Risk Engineering Survey Reports (OG&P IGRES 2024/001), and agreed in discussion between the original insured, broker and (Re)Insurer(s).
- 6.2. The BI loss scenarios should focus on significant outages involving downtime of greater than 6 months.
- 6.3. The BI loss scenarios will be location specific but any loss estimate and mitigation assessments should be undertaken at a group level. Each loss scenario should be selected not on the basis of the impact at the incident location but on the basis of the largest loss potential across the (re)insured group.
- 6.4. The minimum number and type of loss scenarios should be agreed in discussion between the party preparing the study, the original insured and the Lead (Re)Insurer(s).
- 6.5. It is suggested that BI loss scenarios be presented in a format similar to that outlined in Table 1.
- 6.6. The unmitigated loss and mitigated loss columns should be populated by way of proportion of lost production and the length of time such impact occurs over, while recognising the proportion of profit lost may not be directly linked. If production can be restored in a phased manner then this should be identified.
- 6.7. Quantified BI loss estimates should preferably be based upon the site's Linear Programme (LP) or equivalent production planning tool, although the assumptions and inputs to this model need to be clearly explained.
- 6.8. All loss estimates should include, if known, any additional costs necessary to maintain the business, such as increased transport costs and/or feedstock prices.

**Table 1:**

<b>Business Interruption Loss Scenarios</b>				
<b>Location of Scenario</b>	<b>Description of Scenario</b>		<b>Rebuild Time/Duration of Outage</b>	
Location A				
<b>Impact of Scenario on Other Insured Locations</b>				
<b>Insured Location</b>	<b>Unmitigated Impact</b>	<b>Mitigations</b>	<b>Mitigated Impact</b>	<b>Mitigated Duration</b>
Location B				
Location C				
Location D				
Location E				

## **7. Recommendations**

- 7.1. While not typically provided, any recommendations should focus on how the (re)insured's operations could be changed to reduce BI loss potential, including:
  - 7.1.1. Development, updating, review or improvement of a business continuity plan.
  - 7.1.2. Increase in supply chain flexibility through capital projects (such as import, storage and export facilities).
  - 7.1.3. Review of suppliers and customers to where possible ensure diversity of supply and product market.
  - 7.1.4. Test and/or simulate loss mitigation options against likely scenarios.
  - 7.1.5. Identify critical spare equipment which should be readily available.