

	HSE Monitoring and Reporting Standard	Rev 04
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APPENDIX 9

Methodology for Classifying and Remediating Incidents and Breaches

Purpose

Given the nature and scale of activities undertaken, the complexity of applicable environmental law, and breadth of the HSESAP, the Company and the Phase 2 Senior Lenders each recognise that HSE or social incidents and compliance breaches may occur.

The Company is required to meet certain response requirements for incidents and breaches. The purpose of the following Methodology is to classify incidents and breaches in order to determine the appropriate level of response required to achieve compliance and support continual improvement.

Application of the Methodology

The Company shall apply the Methodology to assess the impact Severity of all breaches of its obligations of which it becomes aware, **as soon as reasonably practicable and in any case within 3 days** of the Company becoming aware of the breach, to determine whether the breach constitutes a Blue Impact, Low Amber Impact, High Amber Impact or Red Impact.

Following its application of the Methodology to any breach, the Company shall record the breach and its ranking pursuant to the Methodology in its HSE action tracking system.

Except where being addressed through the implementation of a Remedial Action Plan, the Company shall reapply Methodology during the continuance of such breach if it becomes aware of any fact, which could increase or decrease the severity of the classification.

Definition of Incident

“Environmental Incident”¹ means any material environmental, social or health and safety incident or accident (including material unauthorised discharges or explosions or emissions of hydrocarbons or Harmful Phenomena, material seismic or geo hazardous events, etc, but excluding road traffic accidents), which requires the Company to undertake emergency or immediate remedial action or other emergency action.

Definition of Breach

“Breach”² of obligations includes any material non-compliance with

- (a) material Environmental or Social Law (whether by the Company, its contractors or subcontractors, and including in relation to Vessels law in the relevant jurisdiction applicable to the owner/chartered),
- (b) Environmental Consents and Permissions,
- (c) HSESAP, or
- (d) Good Industry Practice in respect of any adverse HSE or social impact arising which is not otherwise regulated under legal or HSESAP requirements.

Breaches may be identified in a number of different ways, including during operational activities, monitoring, auditing, and incident investigation. Breaches shall be treated in the same way as incidents (and near misses / non-conformances) for the purposes of internal reporting, investigation and remedial action, in accordance with the Company’s Incident Reporting & Follow-Up Standard and the requirements identified below.

¹ CTA Schedule 8 paragraph 1 (Environmental Incident).

² CTA Schedule 8 paragraphs 1 (Methodology), 3.4.1, and 5.1.

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Definition of Significant Environmental Harm

“Significant Environmental Harm”³ means in respect of an Environmental Matter or Social Matter, the occurrence of any event or circumstance that:

- (a) in the case of human beings, arises out of an accident (other than a road traffic accident) or exposure to Harmful Phenomena and causes fatalities, multiple serious injuries, or serious industrial disease or chronic health impacts; or causes irreversible or long term serious socio economic disadvantage, irreversible or long term material adverse changes to living conditions or livelihood, serious social conflicts involving a significant number of members of the community, or significant damage to cultural heritage or significant objects or sites under special protection; which in each case has not already subject to adequate compensation;
- (b) in the case of any significant natural ecological system or habitat, causes harm resulting in a long term material adverse change in the functioning of that ecological system or in the structure, diversity or the natural distribution of species within such system or habitat in the affected location;
- (c) in the case of any species of flora or fauna, causes harm which materially endangers the long term maintenance of the population of that species; or
- (d) in the case of damage to crops or livestock (including forestry, wild crops, fish reserves and game), causes a material diminution in typical yield, quality or other material loss in value suffered across a significant area resulting from death, disease, reproductive failure or birth defects or other physical damage, which in each case has not already been the subject of adequate compensation.

The above definition is incorporated into Guidance on Severity Rating, and Significant Environmental Harm will result in Severity Rating 4 or 5.

Risk Classification of an Incident or Breach

The consequences of an incident or breach shall be separately identified in relation to each of the five categories – harm to people (P), social (S), assets (A), environment (E), and reputation (R) – using the following Risk Assessment Matrix.

Table 1: Risk Assessment Matrix⁴

Severity	CONSEQUENCES					INCREASING LIKELIHOOD				
	People	Social	Assets	Environment	Reputation	A	B	C	D	E
						Never heard of in the Industry	Heard of in the Industry	Has happened in the Company or more than once per year in the Industry	Has happened at the Location or more than once per year in Company	Has happened more than once per year at the Location
0	No injury or health effect	No impact	No damage	No effect	No impact					
1	Slight injury or health effect	Slight impact	Slight damage	Slight effect	Slight impact		Blue			
2	Minor injury or health effect	Minor impact	Minor damage	Minor effect	Minor impact					
3	Major injury or health effect	Moderate impact	Moderate damage	Moderate effect	Moderate impact			Low	Amber	
4	PTD or up to 3 fatalities	Major impact	Major damage	Major effect	Major impact		High	Amber		
5	More than 3	Massive	Massive	Massive	Massive					Red

³ CTA Schedule 8 paragraph 1 (Significant Environmental Harm).

⁴ PTD is a Permanent Total Disability.



	fatalities	impact	damage	effect	impact					
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For an incident or breach involving **actual damage**:

- the actual Severity rating of “0” to “5” (vertical axis) shall be determined for each individual category P, S, A, E and R, in accordance with Section 5.3.5 below;
- the **overall Severity rating** for the incident or breach is the highest of the individual category ratings.

To assess **potential damage**:

- the potential Severity rating of “0” to “5” shall be selected for each individual category P, S, A, E and R, to reflect the consequences of credible scenarios that may potentially develop from the release of a hazard (incident/breach);
- the Increasing Likelihood rating of “A” to “E” (horizontal axis) shall then be determined for each individual category P, S, A, E and R, based on historical evidence and experience that the selected Severity ratings have materialised within the Industry, Company or Location. The consequence estimates are based on envisaged scenarios of what might happen, and likelihood estimates are based on historical information that such a scenario has happened under similar conditions. This should not be confused with the likelihood that the hazard is released, rather it is the likelihood of the selected potential Severity rating occurring;
- the risk classification for each individual category P, S, A, E and R shall be determined by the intersection of the chosen column with the chosen row;
- the **overall risk classification** for the incident or breach is the highest of the individual category ratings.

To be clear, where any incident or breach has multiple applicable actual and/or potential Severity ratings, each of which could have a different risk classification, that incident or breach will be ranked at the highest risk classification for any of the applicable actual or potential consequences.

Guidance on Severity Rating

Table 2: Harm to People

Severity	Description
0	No injury or health effect.
1	Slight injury or health effect, not affecting work performance or Daily Life Activities (first aid case, medical treatment case , or exposure to health hazards that give rise to noticeable discomfort, minor irritation or transient effects reversible after exposure stops).
2	Minor injury or health effect, affecting work performance (restricted work case , or up to 5 days lost time to fully recover), or Daily Life Activities (for up to 5 days), or reversible health effects (e.g. skin irritation, food poisoning).
3	Major injury or health effect, affecting work performance in the longer term (lost time more than 5 days absence from work) or irreversible damage to health (long term disabilities , illnesses such as sensitisation, noise induced hearing loss, chronic back injury, repetitive strain injury or stress).
4	Permanent Total Disability or one to three fatalities , resulting from an injury or occupational illness (e.g. car accident resulting in 1-3 fatalities, serious industrial disease or chronic health impacts such as corrosive burns, silicosis, cancer, serious work related depression).
5	More than three fatalities , resulting from injury or occupational illness (e.g. major fire or explosion resulting in more than 3 fatalities, cancer to a large exposed population).

Table 3: Social Impact

Severity	Description
0	No measurable adverse impact.
1	Slight impact <ul style="list-style-type: none"> • Slight adverse impact to one or more people or their assets which results in no measurable adverse impact on their living standards or livelihood.
2	Minor impact <ul style="list-style-type: none"> • Minor adverse impact on one or more people or on their assets which can be readily identified, is contained within a limited geographical area, and results in a reduction in the living standards or livelihoods of those affected⁵ • Loss of opportunity for affected persons to derive legitimate material benefits from the Project or to participate in Project public consultation or grievance process. • Damage that is able to be remedied to amenities or objects of cultural importance to the extent this has not been the subject of prior adequate compensation.
3	Moderate impact <ul style="list-style-type: none"> • Considerable adverse impact on one or more people or on their assets which can be readily identified, is contained within a limited geographical area, and results in varied primary and secondary impacts on the living standards or livelihoods of those affected⁶. The determination of an appropriate response, such as compensation, will require focused studies. • Destruction of a site or major object or amenity of local or regional cultural importance, or national objects that are not under legislative protection, to the extent this has not already been the subject of prior adequate compensation. • Considerable discontent in groups within the labour force and/or community in relation to practices attributable to the construction and/or operation of the Project. Acts of petty violence or other criminal acts by or against Project workers capable of resulting in serious injury or localised civil unrest.
4	Major impact <ul style="list-style-type: none"> • Major adverse impact on many people or their assets which cannot be readily identified and/or is over a widespread area, and results in long-term varied impacts including secondary impacts on their living standards or livelihoods. Extensive studies required to identify potential compensation measures; full compensation unlikely to be possible. • Destruction of a site or major object or amenity of national cultural importance which is under legislative protection. • Serious social conflict involving a significant number of members of the community or labour force in relation to practices attributable to the construction and/or operation of the Project. Acts of organised crime (including violence) or other serious crimes by or against Project workers capable of resulting in severe injuries to people or civil unrest at multiple locations.

⁵ In each case to the extent such damage has not been the subject of prior compensation or supplementary assistance benefiting the people impacted and excluding the impacts from general inflationary changes.

⁶ In each case to the extent such damage has not been the subject of prior compensation or supplementary assistance benefiting the people impacted and excluding the impacts from general inflationary changes.



Severity	Description
5	<p>Massive impact</p> <ul style="list-style-type: none"> Massive adverse impact on extensive populations or on their assets, resulting in varied and probably irreversible impacts on their living standards or livelihoods⁷. Destruction of a site or major amenity of international cultural importance which is under legislative protection. Massive social conflict resulting in widespread rioting, widespread life threatening violence against Project entities or Project workers, or by or against communities affected by the Project in relation to practices attributable to the construction and/or operation of the Project.

Table 4: Asset Damage and other Consequential Business Losses (100% costs, USD)

Severity	Description
0	Zero damage
1	Slight damage - no disruption to operation (costs less than 10,000)
2	Minor damage - brief disruption (costs less than 100,000)
3	Local damage - partial shutdown (can be restarted but costs up to 1,000,000)
4	Major damage - partial shutdown (2 weeks shutdown costs up to 10,000,000)
5	Extensive damage - Substantial or total loss of operation (costs >10,000,000)

Table 5: Environmental Effect

The bullet points in this table are a mixture of:

- Effects, e.g. groundwater contamination.
- Events with the potential for environmental effect, e.g. exceeding a limit.
- Indicators of potential effects, e.g. complaints.

Severity	Description
0	No effect.
1	<p>Slight effect - slight environmental damage, contained within the premises, e.g.</p> <ul style="list-style-type: none"> Small spill in process area or tank farm area that readily evaporates.
2	<p>Minor effect - minor environmental damage, but no lasting effect, e.g.</p> <ul style="list-style-type: none"> Small spill off-site that seeps into the ground. On-site groundwater contamination. Complaints from up to 10 individuals. Single exceedance of statutory or other prescribed limit.
3	<p>Moderate effect - limited environmental damage that will persist or require cleaning up, e.g.</p> <ul style="list-style-type: none"> Spill from a pipeline into soil/sand that requires removal and disposal of a large quantity of soil/sand. Observed off-site effects or damage, e.g. fish kill or damaged vegetation. Off-site groundwater contamination. Complaints from community organisations, or more than 10 complaints from individuals. Frequent exceedance of statutory or other prescribed limit, with potential long term effect.

⁷ In each case to the extent such damage has not been the subject of prior compensation or supplementary assistance benefiting the people impacted and excluding the impacts from general inflationary changes.



Severity	Description
4	<p>Major effect - severe environmental damage that will require extensive measures to restore beneficial uses of the environment, e.g.</p> <ul style="list-style-type: none"> • Oil spill at a jetty during tanker (off-) loading that ends up on local beaches, requiring clean-up operations. • Off-site groundwater contamination over an extensive area. • Many complaints from community organisations or local authorities. • Extended exceedances of statutory or other prescribed limits, with potential long term effects. • In the case of damage to crops or livestock (including forestry, wild crops, fish reserves and game), causes a material diminution in typical yield, quality or other material loss in value suffered across a significant area resulting from death, disease, reproductive failure or birth defects or other physical damage.
5	<p>Massive effect - persistent severe environmental damage that will lead to loss of commercial, recreational use or loss of natural resources over a wide area, e.g.</p> <ul style="list-style-type: none"> • Crude oil spillage resulting in pollution of a large part of a river estuary and extensive clean-up and remediation measures. • In the case of any significant natural ecological system or habitat, causes harm resulting in a long term material adverse change in the functioning of that ecological system or in the structure, diversity or the natural distribution of species within such system or habitat in the affected location. • In the case of any species of flora or fauna, causes harm which materially endangers the long term maintenance of the population of that species.

Table 6: Reputation Impact⁸

Severity	Description
0	<p>No impact. No impact on operations. No public awareness. No media coverage.</p>
1	<p>Slight impact</p> <ul style="list-style-type: none"> • Limited public awareness on local level but no discernible concern. • No media coverage. • No impact on operations.
2	<p>Minor impact</p> <ul style="list-style-type: none"> • Local public concern. • Some local political attention with potentially adverse effects on company operations in a particular area.
3	<p>Moderate impact</p> <ul style="list-style-type: none"> • High local public concern, extending to the level of the Sakhalin Region. • Media coverage on regional level.

⁸ Definitions:

Local level – specific community (settlement) or district.

Local political attention – political attention from the head of a specific community or of a district.

Local public – stakeholders living and registered within the Sakhalin Region.

Local media – electronic and printed media (including internet) registered and distributed within the Sakhalin Region.

Regional media - electronic and printed media (including internet) registered within the Far Eastern Region.

National media - electronic and printed media (including internet) registered within Moscow, distributed within Russian Federation (this includes representatives of national newswires on the island).



Severity	Description
	<ul style="list-style-type: none"> • Sakhalin Government attention with potentially adverse effects on company operations in a particular area.
4	<p>Major impact</p> <ul style="list-style-type: none"> • Likely to escalate and affect reputation of Company, Shareholders and/or Lenders. • National public attention, impact on local and national stakeholder relations with potential for national and international NGO action, National government involvement. • Extensive media coverage on national level, some international coverage. • Potential impact on company operations. • Potential for regulatory actions leading to restricted operations or impact on the license to operate. • Likely to escalate and affect reputation of Company, Shareholders and/or Lenders. • Mobilisation of action groups.
5	<p>Massive impact</p> <ul style="list-style-type: none"> • International public attention, action(s) by international NGOs. • High level of concern amongst international governments. • Extensive international media attention. • Significant impact on company operations. • Significant potential for regulatory actions leading to restricted operations or impact on the license to operate. • Severe impact on reputation of Company, Shareholders and/or Lenders.

Implementation of Immediate Action and Remedial Action Plan

As soon as reasonably practicable (ASARP) following Significant Environmental Harm (arising or not arising from an incident/breach), and/or an incident or breach has actual Severity rating 4 or 5, becoming known to the Company, the Company shall take **Immediate Action**, including short term containment, remedial or mitigation measures as appropriate. Any Immediate Action must be in compliance with legal and HSESAP requirements.

The Company shall restore compliance and where reasonably practicable mitigate the breach to ALARP, within an **Initial Period** defined in Table 7.

Where this is not reasonably practicable, the Company shall prepare and begin to implement a **Remedial Action Plan** (RAP). The RAP shall:

- identify actions to remove, remedy, abate, contain, treat, ameliorate or otherwise render compliant any damage or breach, and shall specify to the extent reasonably appropriate the methods, time scales and objectives to be achieved (including any appropriate clean up levels and the methods to be adopted to ascertain such levels such as risk based corrective actions) and whether and how often update reports shall be delivered to the Phase 2 Senior Lenders;
- be provided to the Intercreditor Agent and the Phase 2 Senior Lenders as soon as reasonably practicable but in any event **Provide RAP** within period defined in Table 7. The Intercreditor Agent may request amendments to the RAP (setting out reasonable grounds), and the Company shall not unreasonably withhold consent and shall respond as soon as reasonably practicable but in any event within 14 days of receipt of such request, at which time the RAP shall be updated to reflect the amendments requested by the Intercreditor Agent (acting reasonably).

The Initial Period shall be extended by an **Additional Period** defined in Table 7, unless the Company has not used all reasonable endeavours to restore compliance or mitigate the breach or Environmental Incident, or to prepare and to begin to implement the RAP, and may be further extended subject to the Intercreditor Agent's consent.

If the Company fails to remedy a Blue Breach within 150 days the breach shall be recategorised at the end of such period as a Low Amber Impact.

Note that provision is made in the CTA for situations where the Company is prevented from complying with response requirements due to certain actions by authorities⁹.

In relation to incidents involving vessels outside Russian territorial waters, the requirement to undertake remedial action will be determined by reference to good industry practice.

Table 7: Summary of requirements relating to each Breach or Incident Categorisation

	Blue Impact	Low Amber Impact	High Amber Impact	Red Impact	Breaches in relation to River Crossing Impacts ¹⁰
RISK CATEGORISATION					
Actual Severity rating:	0 – 2	3	4 or 5	4 or 5	<i>Refer other columns</i>
and/or Potential (RAM shading):	Blue	Amber	Amber	Red	
NOTIFICATION					
Company shall notify:	Intercreditor Agent and the Phase 2 Senior Lenders				
within:	Quarterly reports	Quarterly reports	ASARP or 5 days	ASARP or 5 days	
RESTORE COMPLIANCE AND MITIGATE TO ALARP					
within Initial Period (days):	150	60	60	60	15
else Provide RAP within (days):	Not applicable	14 days of the Company having prepared it	ASARP or within 5 days of the Company having prepared it	ASARP or within 5 days of the Company having prepared it	15 days of impact
Intercreditor Agent may request RAP amendments within (days):	Not applicable	ASARP	Not specified	Not specified	14
Further consultation period (days) within which RAP must be finalised:	Not applicable	14	14	14	5
Additional Period (days)	Recategorised to Low Amber	90	90	90	Not specified

Furthermore, the following notification requirements apply:

- Significant Environmental Harm resulting from incident - ASARP or within **48 hours**;
- Red Impacts / Significant Environmental Harm not resulting from incident - ASARP or within **3 days** of the Company becoming aware of the breach;
- Event of Default - ASARP or within 5 days.

Action Tracking System

The Company will use the Action Tracking System (Fountain Impact) to track actions to restore compliance or mitigate or to track a Remedial Action Plan against these breaches and will report progress quarterly.

⁹ Refer CTA Schedule 8 paragraph 5.1.8.

¹⁰ "River Crossing Impacts" means harm or risk of harm to the environment arising from the construction, repair and/or any replacement of the onshore pipeline or any part thereof prior to the completion of construction (including completion of permanent reinstatement works) of the onshore pipeline and relating to type 2 or type 3 rivers (as defined in the Company's river crossing strategy report of 2005) or any tributary thereof, which for the avoidance of doubt shall include any soil erosion or geohazard harm arising from such construction, repair and/or replacement that may impact any such rivers or any tributary thereof.



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The person within the Company with responsibility for the investigation of **any relevant breach or incident** shall:

- ensure the incident or breach is reported in the Action Tracking System;
- establish action parties and target completion dates for all recommended actions specified in the Remedial Action Plan; and
- record actions and target dates in Action Tracking System.

The **action party** shall keep the Action Tracking System updated and provide quarterly progress updates.