



# Workshop on producing environmental Codes of Practice for the Mining Industry of Guyana

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# Introduction

**GGMC is required by mining regulations to publish Environmental Codes of Practice. These Codes of Practice will be prepared by SNC-Lavalin with GGMC's input.**

**This shortcourse is intended to provide GGMC with an approach on conceptualizing and producing Codes of Practice for future needs.**

# Methodology

1- Definition and description of the basic concepts a Code of Practice is built upon :

 **THE FRAMEWORK**

2- An impacts-based approach to defining the content (how the Code will be implemented)

3- Work in small groups

4- As an exercise, the participants will produce a simple mercury Code of Practice



# Basic definitions

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# What is a Code of Practice ?

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## **Code of Practice:**

**A collection of rules and ethical principles, related to a specific field of activity describing the procedures and setting forth standards considered to be Best Practice in the said field of activity.**

**In large-scale mining, Codes of Practice are usually designed by and for the industry**



**What is a Best  
Practice ?**

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## Best Practice:

*« The best way of doing things »*

**Best practice is about preventing or minimizing risks to human health as well as adverse environmental, social and economic impacts.**

## Best Practice (cont'd)

### The Best Practice Principles:

- ◆ Ecologically sustainable development
- ◆ Intra- and inter-generational equity
- ◆ Accountability and compliance with international human rights and environmental standards and principles
- ◆ The Precautionary Principle
- ◆ Well informed and trained staffs
- ◆ Effective communication and openness
- ◆ Flexibility
- ◆ Continual improvement

## Sustainable Development:

Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

**Best Practice is one of the  
principal ways of achieving  
Sustainable Development...**

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**What is the difference  
between an environmental  
Code of Practice and  
environmental Guidelines ?**

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## Guidelines:

**Non-abiding document, generally designed to provide the user with information, explanations, guidance and help on a specific topic. It is a commonly used tool in enforcing a new regulation. The user can be the Regulator himself or the industry.**

## Regulation:

A type of "delegated legislation" promulgated by a state, federal or local administrative agency given authority to do so by the appropriate legislature. Regulations generally are very specific in nature, they are also referred to as "rules" or simply "administrative law".

Regulations are official rules and must be followed.

# To summarize:

Law (ex. Mining Act)

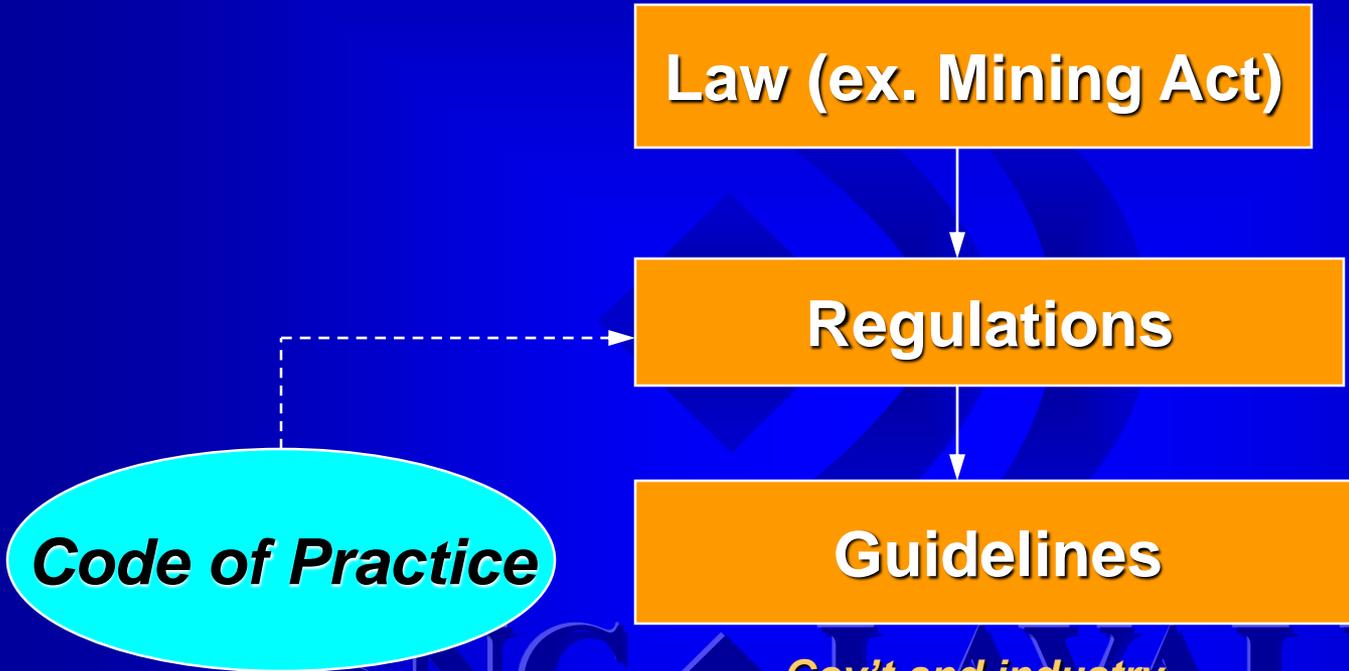
Regulations

Guidelines

**Code of Practice**

*Industry*

*Gov't and industry*



# Framework of a Code of Practice

1. Preamble or foreword
2. Glossary of terms
3. Mission and objectives
4. Scope
5. Commitments and standards of practice
6. Code implementation
7. References

# Preamble or foreword

**Purpose:**

**To introduce the context in which the Code has been prepared, to explain the factors that motivated or led to the production of that Code.**

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# 1. Preamble or foreword (cont'd)

Events that may lead to the drafting of a Code of Practice:

- adoption of a new regulation;
- an increase in public awareness following a major spill;
- risk assessment classifying this activity as « high risk »;
- a desire to set industry-wide standards.

## Exercise 1

**Write the preamble of Guyana's Code of Practice for the use of mercury in mining.**

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## 2. Glossary of terms

**Purpose:**

**To ensure that all users have the same understanding of the Code. The most common terms utilized must be defined**

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# 3. Mission and objectives

**Mission:**

**The mission is the « ultimate » purpose of a Code of Practice. What the Code is to accomplish.**

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# ★ Example 1

## Statement of the Cyanide Management Code's mission

*« To assist the global gold mining industry in improving cyanide management, thereby minimizing risks to workers, communities and the environment from the use of cyanide in gold mining, and reducing community concerns about its use »*

## 3. Mission and objectives

### **Objectives:**

**The Code's objectives describe the main lines of action it intends to follow in order to fulfill its mission. They should, in all cases, be very general and serve as a declaration of good intentions**



## **Example 2**

### **Statement of the Cyanide Management Code's objectives**

- To protect workers, communities and the environment from cyanide;***
- To control, manage and improve the management of cyanide;***
- To be used by large and small gold mining companies and to serve as a form of assurance for interested parties including regulators, financiers, and NGO's;***
- To be applicable internationally, in both developed and developing countries;***

★ Example 2 (cont'd)

Statement of the Cyanide Management  
Code's objectives

- *To be credible and verifiable;*
- *To be dynamic over time.*

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## Exercise 2

**Reach an agreement on the mission and the objectives of a Code of Practice for mercury.**

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## 4. Scope

**Purpose:**

- a. To decide the activities the Code will address and those it will not address
- b. To clarify how the Code is interacting with national and local regulations.

## **5. Commitments and Standards of Practice**

**The Commitments made by the Code's users to achieve its objectives**

**The Commitments are complied with through a number of Standards of Practice that consist of performance goals and objectives**

## 5. Commitments and Standards of Practice (cont'd)

**The Commitments are based on the Best Practice Principles:**

- ◆ Ecologically sustainable development
- ◆ Intra- and inter-generational equity
- ◆ Accountability and compliance with international human rights and environmental standards and principles
- ◆ The Precautionary Principle
- ◆ Well informed and trained staffs
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**Best Practice is not fixed in space or time. A Best Practice technique at one mine may not be suitable at a similar mine elsewhere.**

**On the other hand, a technique chosen during mine planning may be replaced by a better one some years later.**



## **Example 3**

# **MAC's guide to the management of Tailings Facilities**

### **1. Site selection and design of a tailings facility**

#### **Principle:**

***Select a site and design a tailings facility in accordance with sound engineering practice, in compliance with company standards, the MAC Environmental Policy, the MAC tailings management framework, permits, legislative requirements and commitments to stakeholders.***



## **Example 3**

### **MAC's guide to the management of Tailings Facilities (*cont'd*)**

#### **1. Site selection and design of a tailings facility (*cont'd*)**

##### **Standards of practice:**

- a. Develop site selection and design criteria***
- b. Establish a process for site selection, evaluation and risk assessment***
- c. Establish an appropriate process of external stakeholder consultation for site selection and design***
- d. Etc.***



## **Example 3**

### **MAC's guide to the management of Tailings Facilities (cont'd)**

#### **2. Construction of a tailings facility**

##### **Principle:**

***Construct the tailings facility as per design and in safe and environmentally acceptable manner, in compliance with company standards, the MAC Environmental Policy, the MAC tailings management framework, permits, legislative requirements and commitments to stakeholders.***



## **Example 3**

### **MAC's guide to the management of Tailings Facilities (cont'd)**

#### **2. Construction of a tailings facility (cont'd)**

##### **Standards of practice:**

- a. Establish criteria and procedures that ensure tailings facility construction will be in conformance with design and will meet legal requirements***
- b. Prepare detailed plans for construction of the tailings facility***
- c. Obtain approval and permits***
- d. Construct the tailings facility in conformance with design and plans***



## Example 3

### MAC's guide to the management of Tailings Facilities (*cont'd*)

#### 3. Operation of a tailings facility

##### Principle:

*Operate the tailings impoundment facility in a manner such that all structures are stable, all solids and water are managed within the area designated in the design, and in compliance with company standards, the MAC Environmental Policy, the MAC tailings management framework, legislative requirements and commitments to stakeholders.*



## **Example 3**

### **MAC's guide to the management of Tailings Facilities (cont'd)**

#### **3. Operation of a tailings facility (cont'd)**

##### **Standards of practice:**

- a) Develop plans to operate in conformance with design and to meet legal requirements***
- b) Review design documents, as-built construction drawings, conceptual operating and closure plans environmental assesment and commitments to stakeholders***
- c) Operate the tailings facility in conformance with the design specifications, plans and legal requirements.***



## Example 3

### MAC's guide to the management of Tailings Facilities (cont'd)

#### 4. Decommissioning and closing of a tailings facility

##### Principle:

*Decommission and close the tailings facility in such a manner that all remaining dams and associated structures are safe and stable. All solids and water will be managed within the area designated in the closure plan and in compliance with company standards, the MAC Environmental policy, the MAC tailings management framework, legislative requirements and commitments to stakeholders.*



## **Example 3**

### **MAC's guide to the management of Tailings Facilities (cont'd)**

#### **4. Decommissioning and closing of a tailings facility (cont'd)**

##### **Standards of practice:**

- a) Close the tailings facility in conformance with design and to meet legal requirements***
- b) Prepare detailed plans for implementation of closure***
- c) Obtain all permits, licences and approval required***
- d) Establish responsibility for long-term care and maintenance***
- e) Decommission and close the tailings facility as per detailed closure design and plan***

## Exercise 3

**Defining standards of practice for mercury in mining**

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## 6. Code implementation

**Purpose:**

**To describe in detail how the Standards of Practice will actually be implemented.**

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## **6. Code implementation (cont'd)**

**The Best Practice principles set out above must guide the authors (GGMC) in the choice of activities and topics that will make up the Implementation section of the Code.**

**Don't forget that Sustainable Development is embodied in the Best Practice Principles !!!**

# The Best Practice Principles

- ◆ Ecologically sustainable development
- ◆ Intra- and inter-generational equity
- ◆ Accountability and compliance with international human rights and environmental standards and principles
- ◆ The Precautionary Principle
- ◆ Well informed and trained staffs
- ◆ Effective communication and openness
- ◆ Flexibility
- ◆ Continual improvement

## 7. References

All publications and sources (personal communications, web pages, etc) from which information has been derived in preparing the Code

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# An impacts-based approach to implementation

Since Best Practice is about avoiding or minimizing environmental, social and economic impacts, we must know what these impacts will be in order to adopt the appropriate practices.

Therefore, the first step toward implementing a Code of Practice is to identify the impacts the specific field of action has on the surroundings

# An impacts-based approach to implementation (cont'd)

Writing the implementation section of the Code consists basically of how we will avoid or mitigate these impacts.

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## **Example 4**

### **Environmental and social impacts of the use of mercury for gold amalgamation**

**The environmental and social impacts of using mercury are the result of a number of major activities or steps upon which the Code will focus in determining Best Practices. For mercury amalgamation these activities include:**



## **Example 4**

### **Environmental and social impacts of the use of mercury for gold amalgamation (*cont'd*)**

- a. Storage and handling of mercury**
- b. Amalgamation of gold particles**
- c. Disposal of amalgamation tailings**
- d. Burning of amalgam to recover gold**
- e. Burning of residual mercury to refine gold (in gold shops)**

## Exercise 4

**Identifying mitigation measures  
related to environmental and social  
impacts of the use of mercury for  
gold amalgamation**

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