

# Environmental Monitors and Independent Environmental Monitors

VERSION 1.0

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**EAO**

Environmental  
Assessment Office

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## 1.0 BACKGROUND

Environmental Assessment Certificates (Certificate) include a condition<sup>1</sup> requiring the Certificate Holder (Holder) to retain an Independent Environmental Monitor (IEM) to assist in ensuring that a project is constructed and operated in accordance with its Certificate. The IEM achieves this by inspecting, documenting and reporting observations to Environmental Assessment Office (EAO) Compliance and Enforcement (C&E) and making recommendations to help Holders comply with their Certificate. The IEM is on site as an independent and neutral observer.

Environmental Monitors (EMs) are an effective best practice and are frequently retained by Holders to help achieve compliance with Certificates, even though they are not typically required by Certificates.

## 2.0 SIMILARITIES AND DIFFERENCES BETWEEN EMS AND IEMS

There are a number of similarities between EMs and IEMs. For instance, both roles assess the status of compliance with the Certificate, including the Certified Project Description and the Table of Conditions. Both EMs and IEMs require similar qualifications and provide recommendations to the Holder on how to prevent and/or remedy identified non-compliances. A critical distinction between the two roles is that the EM role supports the Holder in ensuring compliance with the Certificate, while the IEM functions as a neutral observer who provides information directly to the regulator, in this case, EAO C&E. See the table below for a more detailed comparison of the two positions.

Figure 1: EM and IEM comparison<sup>2</sup>:

Parameters	Environmental Monitor	Independent Environmental Monitor
<b>Retention</b>	Retained voluntarily by the Holder	Retained by the Holder as a condition of the Certificate
<b>Reporting Relationship</b>	Provides reports directly to the Holder	Provides reports directly to the EAO, other agencies or Indigenous nations at a scope and frequency directed by EAO C&E without information first being vetted by the Holder.
<b>Relationship to Construction<sup>3</sup></b>	Fully integrated into the construction team	Routinely interacts with the construction team and Holder representatives, but is not typically fully integrated into the construction team.
<b>Frequency of Presence on Site</b>	Involved in the day-to-day conduct of project activities	May be involved in the day-to-day conduct of activities (particularly during high risk activities), although generally onsite less frequently than the EM.
<b>Role</b>	Monitors construction (and in some cases operations) to ensure the project is	Inspects construction (and in some cases operations) to verify whether the project is

<sup>1</sup> Certificates issued since the beginning of 2017 require an Independent Environmental Monitor. Prior to this, many certificates required either an Environmental Monitor or an Independent Environmental Monitor.

<sup>2</sup> The details in this table are based on the current approach in certificates to require an IEM and are not meant to be comprehensive. Prior to 2017, certain certificates blended the EM and IEM role with varying requirements.

<sup>3</sup> Some Certificates require the IEM for the construction phase while other Certificates also require IEMs for some or all of operations of the project.

	<p>developed in accordance with regulatory requirements</p> <p>Provides advice to the Holder to reduce environmental risk prior to, during and following construction (and in some cases operations) activities.</p> <p>Provides planning inputs to proactively prepare for work activities and help mitigate adverse effects.</p>	<p>developed in accordance with regulatory requirements</p> <p>If included in the approved Terms of Engagement (see further details on the Terms of Engagement on page 3), may provide advice to the Holder to reduce environmental risk prior to, during and following construction activities</p> <p>May be directed by the EAO to provide information or evidence to inform compliance oversight and effective enforcement</p>
<b>Stop Work Authority</b>	Holder chooses whether to delegate stop work authority	The IEM possesses stop work authority granted through the approved Terms of Engagement
<b>Qualifications</b>	Varying qualifications, however EMs are frequently a Qualified Professional with experience in monitoring construction	Qualified Professional with a minimum of five years' experience in monitoring construction in British Columbia.

In some cases, other regulatory agencies may also require an IEM. In these situations, Holders are encouraged to work with both agencies to determine if the same IEM may be able to fulfill the various regulatory requirements.

### 3.0 IEM PERSONNEL AND QUALIFICATIONS

The IEM template condition requires the role be filled by a Qualified Professional(s) with a minimum of five years experience in monitoring construction in British Columbia. During the EA process, the EAO may also determine that additional expertise or qualifications are required.

The full IEM template condition is available in the environmental assessment certificate template on the EAO's website.

Holders may wish to consider the following when determining which individual(s) or firm will assume the role of the IEM:

- Is it effective for one individual to act as the IEM at all times or does the scope and nature of the project require multiple individuals to take on the various responsibilities of an IEM? For example, large projects spanning a substantial distance (e.g., projects with multiple construction headings along a lengthy right-of-way) or multiple active construction sites (e.g., a project with significant infrastructure being constructed in several locations) may require more than one individual (i.e., multiple approved IEM designates<sup>4</sup>) to effectively monitor compliance.
- Will there be activities or work that requires specialized expertise or knowledge during the applicable project phase? If yes, the Holder should ensure that the IEM is supported by appropriate subject matter experts. This may be explicitly stated in the condition, or the IEM, EAO or the Holder may determine that additional expertise is required.

Note that in certain projects, it may not be sufficient for the IEM role to be filled by an individual and a team may be needed (referred to as 'IEM support' in the IEM template condition). This may include IEM designates, subject matter

<sup>4</sup>An IEM designate is a Qualified Professional working under the direction of the IEM. The IEM designate has a similar role and responsibilities as the IEM. Whether the IEM designate(s) can issue a Stop Work Order is described in the TOE.

experts, and other technical supports. The roles and responsibilities of these individuals should be defined in the Terms of Engagement (TOE).

### 3.1. Terms of Engagement

The template IEM Certificate condition requires Holders to submit to the EAO the draft TOE for retaining an IEM. The Holder must not commence the applicable project phase (e.g., construction) before the TOE is approved by the EAO.

Among other things, the TOE defines:

- The role and responsibilities of the IEM and, if applicable, IEM designate(s);
- The details of the monitoring program that will be implemented by the IEM;
- The authority of the IEM and, if applicable, IEM designate(s);
- Information on how the IEM will communicate non-compliances to the EAO and the Holder and identify risks that could lead to a non-compliance; and,
- The minimum IEM reporting frequency and report distribution process.

During review of the TOE, the EAO will review the roles, responsibilities and qualifications of the IEM and any support staff such as IEM designates and/or subject matter experts to ensure they meet the requirements of the certificate. The EAO will review the details of the monitoring program and reporting process to ensure the IEM will act independently, that their authority will be well defined in the TOE, and that unfettered site access will be granted by the Holder. The EAO may require modifications to the approved TOE if any of the following occur:

- Additional IEM designates are needed to cover the scope of the project;
- The frequency of inspection needs to be changed; or,
- Changes need to be made to the reporting process or frequency.

If the EAO determines modifications are necessary, the EAO will contact the Holder to discuss the timeline and procedures for implementing modifications.

### 3.2. Questions and answers

How can IEMs be independent if they are paid for by the Holder?

- IEMs are Qualified Professionals<sup>5</sup> paid by the Holder, but their responsibility is to independently observe, record and report information to the EAO. IEMs are supported by the EAO to ensure they can gain access to facilities, inspect site activities, review records, and produce reports independently.
- If the EAO has reason to believe the IEM is not acting independently, the EAO may investigate to ensure that all measures are taken to allow the third-party monitor to conduct their duties in an unfettered manner. If the EAO determines that the IEM is being restricted from, or is otherwise not acting independently, it may be a non-compliance with the Certificate and the EAO may determine that enforcement is required.

Why does the frequency of IEM inspections vary between projects and over the life of a project?

- The frequency of IEM inspections may vary between projects and over the life of a project for multiple reasons, including:
  - The presence of particularly sensitive environmental features in or near the certified project area;
  - The complexity and potential risks of a project over time. For instance, site preparation may have less risk associated with it than instream works resulting in the need for less frequent inspections during that particular stage of project development;

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<sup>5</sup> Refer to the following website for details on Qualified Professionals: <http://www2.gov.bc.ca/gov/content/industry/natural-resource-use/doing-business-on-the-land-base/qualified-persons-in-the-nrs>

- If there are untested technologies or mitigation measures being implemented; or,
  - If the IEM recommends, or the EAO requires, increased IEM inspections due to compliance concerns about the project.
- Other forms of monitoring on the project, such as the EM and the presence of other Government regulators, may also influence the required frequency of IEM inspections between projects or over the life of a project.

What factors does the IEM consider when determining if a Stop Work Order must be issued?

- Upon observing non-compliance with the Certificate, the IEM may consider if a stop work order is required. The IEM considers a number of factors, including but not necessarily limited to:
  - The cause of the potential or confirmed non-compliance;
  - The impact of the potential or confirmed non-compliance; and,
  - Whether ongoing activities are likely to compound the impact or prevent the Holder from implementing actions to cease the non-compliance or prevent future non-compliance.

Can IEMs give suggestions to the Holder without informing the EAO?

- The TOE establishes the requirements for reporting and information sharing with the Holder and the EAO. The IEM is expected to communicate transparently with all parties. If recommendations or suggestions are made to the Holder these will be documented and communicated with the EAO as required by the approved TOE.

How can the EAO and the public be assured of the independence of IEM reports?

- The IEM template condition requires that the IEM not provide any information to the Holder in advance of the EAO, unless specific exceptions have been approved through the TOE.
- IEM reports must not be modified by the Holder. If this were to occur, it may be a non-compliance with the Certificate and the EAO may determine that enforcement is required.

Can IEMs direct contractors?

- No. It is not the responsibility of the IEM to direct work except if the IEM determines that a Stop Work Order is required. Directing work puts the IEM in a conflict of interest as it could prevent the IEM from monitoring in an unbiased fashion.

How do EMs and IEMs work together?

- For projects with both an EM and IEM, the EAO encourages frequent communication between the two roles. By communicating regularly on work activity planning, task scheduling, project risks, incidents, and issues, the EM and IEM can work more effectively. Strong communication between the EM and IEM is fundamental to the implementation of a sound environmental management program.

What happens if a member of the public or an Indigenous nation sends a complaint to an IEM?

- Upon receipt of a complaint, the IEM should direct the complaint to the EAO, who will respond and inform the appropriate parties. It is not the responsibility of the IEM to respond to complaints. The IEM should forward any information provided by the complainant to the EAO. After having directed the complainant to the EAO, the EAO may request the IEM's assistance with gathering information or inspecting to assist the EAO with reviewing the complaint.

## 4.0 CONTACT INFORMATION

For more information on the environmental assessment process and IEMs, visit

<https://www2.gov.bc.ca/gov/content/environment/natural-resource-stewardship/environmental-assessments> or contact the EAO at [eaoinfo@gov.bc.ca](mailto:eaoinfo@gov.bc.ca).