BRITISH COLUMBIA ENERGY REGULATOR

Hydrogen Facility Application and Operations Manual

DRAFT VERSION : April 2025

About the Regulator

The BC Energy Regulator (Regulator) is the single-window regulatory agency with responsibilities for regulating energy resource activities in British Columbia, including exploration, development, pipeline transportation and reclamation.

The Regulator's core roles include reviewing and assessing applications for industry activity, consulting with First Nations, ensuring industry complies with provincial legislation and cooperating with partner agencies. The public interest is protected by ensuring public safety, protecting the environment, conserving petroleum resources and ensuring equitable participation in production.

Vision, Mission and Values

Vision

A resilient energy future where B.C.'s energy resource activities are safe, environmentally leading and socially responsible.

Mission

We regulate the life cycle of energy resource activities in B.C., from site planning to restoration, ensuring activities are undertaken in a manner that:

Protects public safety and the environment

Supports reconciliation with Indigenous peoples and the transition to low-carbon energy

Conserves energy resources

Fosters a sound economy and social well-being

Values

Respect is our commitment to listen, accept and value diverse perspectives.

Integrity is our commitment to the principles of fairness, trust and accountability.

Transparency is our commitment to be open and provide clear information on decisions, operations and actions.

Innovation is our commitment to learn, adapt, act and grow.

Responsiveness is our commitment to listening and timely and meaningful action.

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Class 1 and Class 2 Hydrogen Facility Application and Operations Manual – Preface

Written by the Regulator, the Hydrogen Facility Application and Operations Manual is a comprehensive how-to document for Class 1 and Class 2 hydrogen facility applications, related applications, and associated operations. This manual explains the Regulator's Application Management System (AMS) for Class 1 and Class 2 hydrogen facility and related permits.

Per the Hydrogen Facility Regulation:

- A Class 1 Hydrogen Facility means a hydrogen facility where the aggregate weight of hydrogen at the facility (in storage and process equipment) is less than 4.5 tonnes. The facility cannot be co-located with a facility for manufacturing ammonia or methanol from petroleum, natural gas, water or another substance.
- A Class 2 Hydrogen Facility means a hydrogen facility where the aggregate weight of hydrogen at the facility (in storage and process equipment) is equal to or more than 4.5 tonnes. The maximum hydrogen manufacturing capacity of the facility must be less than 100,000 tonnes of hydrogen per year. The facility cannot be co-located with a facility for manufacturing ammonia or methanol from petroleum, natural gas, water or another substance.

The intended audience of this document is Class 1 and Class 2 Hydrogen Facility proponents and permit holders.

This manual delivers a complete overview of the Regulator's application process. Landowners, stakeholders and other interested parties keen on understanding the Regulator's application process – especially the how, why and what is approved can use this manual.

Please Note:

This guidance document does not apply to:

- Class 3 Hydrogen Facilities* – proponents and permit holders should reference the BCER's Processing Facility Regulation for these facilities.
- Hydrogen pipelines – proponents and permit holders should reference the BCER's Pipeline Regulation for these systems.

** Class 3 Hydrogen Facilities are facilities which do not meet the criteria of Class 1 or Class 2 hydrogen facilities.*

Additional Guidance

As with all Regulator documents, this manual does not take the place of applicable legislation. Readers are encouraged to become familiar with the acts and regulations and seek direction from Regulator staff for clarification.

The Regulator publishes both application and operations manuals and guides. This manual provides guidance to applicants in preparing and applying for permits and the regulatory requirements in the planning and application stages. This manual also provides operational guidance that details the reporting, compliance and regulatory obligations of the permit holder.

Regulator manuals focus on requirements and processes associated with the Regulator's legislative authorities. Proponents are also advised to consult the Oil and Gas Activity Application Manual if applying for other associated activities, like road building, changes in and about a stream, short-term water use, pipelines and others. Some activities may require additional requirements and approvals from other regulators or create obligations under other statutes. It is the applicant and permit holder's responsibility to know and uphold all legal obligations and responsibilities. For example, *Federal Fisheries Act, Transportation Act, Highway Act, Workers Compensation Act and Wildlife Act, Water Sustainability Act, etc.*

Throughout the manual there are references to guides, forms, tables and definitions to assist in creating and submitting all required information. Additional resources include:

- Glossary and acronym listing on the Regulator website.
- Documentation and guidelines on the Regulator website.
- Frequently asked questions on the Regulator website.
- Advisories, bulletins, reports and directives on the Regulator website.
- Regulations and Acts listed on the Regulator website.

In addition, this manual references some application types and forms to be submitted outside of the Application Management System but made available on the Regulator's website. Application types and forms include:

- Heritage Conservation Act, Section 12.2 and Section 12.4
- Road use permits
- Water licences
- Master licence to cut
- Certificate of restoration
- Waste discharge permit
- Experimental scheme application
- Permit extension application

Manual Revisions

The Regulator is committed to the continuous improvement of its documentation. Revisions to the documentation are highlighted in this section and are posted to the Energy Professionals section of the Regulator's website. Stakeholders are invited to provide input or feedback on Regulator documentation to Systems@bc-er.ca.

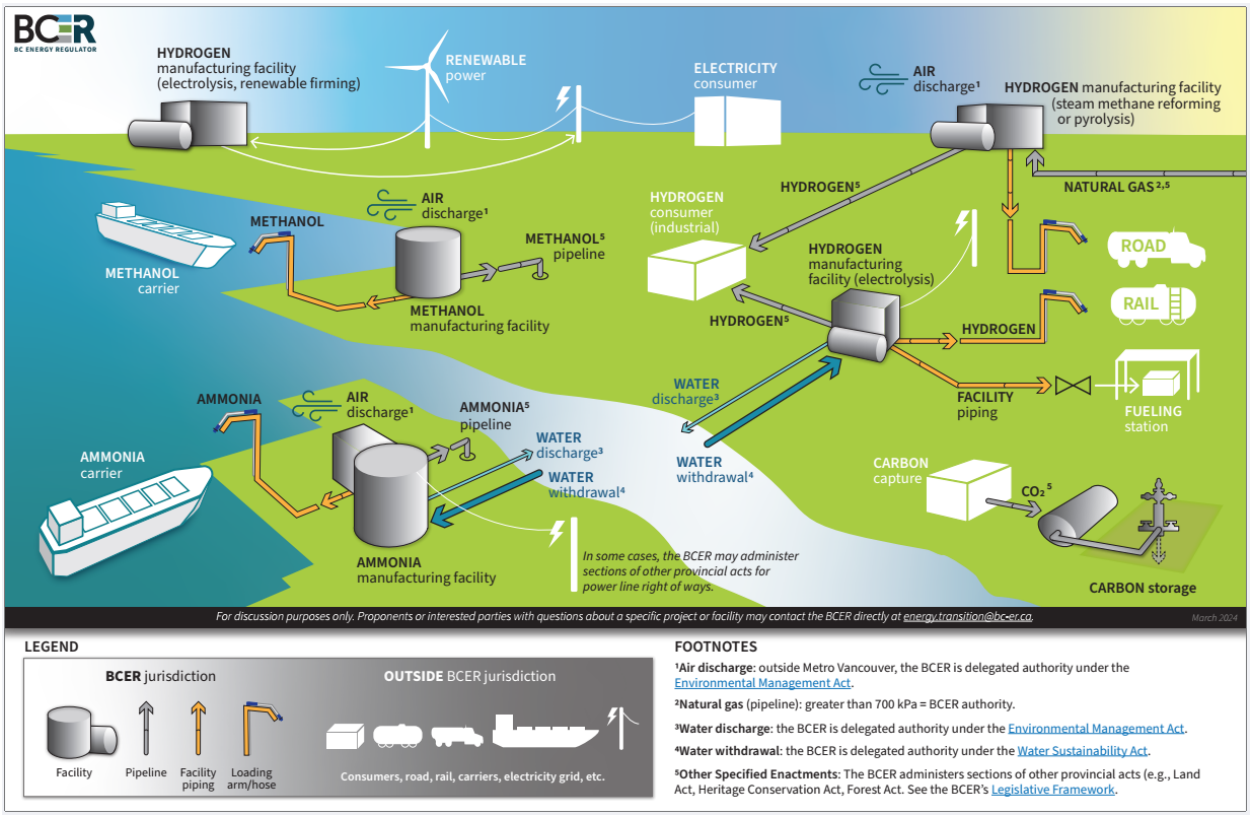
Version Number	Posted Date	Effective Date	Chapter Section	Summary of Revision(s)
DRAFT	April 1, 2025	April 1, 2025	-	This is a new document intended to provide information on the Hydrogen facility application and operations processes. For more information, please refer to TU 2025-03 on the Regulator's website.

Overview of Energy Resources Regulations and Application Process

Companies looking to explore, develop, produce and market energy resources in British Columbia must apply to the BC Energy Regulator (Regulator) for activity permit(s). The Regulator's role in permitting energy resources activities is defined by the *Energy Resources Activity Act (ERAA)*.

Effective September 1, 2023, the *Energy Resources Activities Act* (ERAA) replaced the Oil and Gas Activities Act and expanded the BCER's responsibilities to include the regulation of hydrogen, ammonia, and methanol. The definition of "oil and gas activity" is repealed and replaced with "energy resource activity". The new definition highlights that, in addition to having jurisdiction over the exploration and production of natural gas, the BCER is now explicitly responsible for the oversight of the "construction or operation of a facility for manufacturing hydrogen, ammonia or methanol from petroleum, natural gas, water or another substance".

Figure 1: BCER Hydrogen Regulatory Jurisdiction Infographic



The Regulator operates within a legal framework embodied in the collection of acts, regulations, standards, practice requirements and management plans governing the mandate of the Regulator and provides a single-window model for energy resource and associated activity operating permits.

Operators apply to the Regulator, and the Regulator reviews, assesses and makes decisions on applications. This consolidated single-window authority provides not only a one-stop place for all

energy resource and associated activity requirements, but a consistent application, decision, regulatory and compliance authority. Stakeholders work with one agency, therefore serving the public interest by having an all-encompassing review process for energy resource activities.

In its day-to-day operations, the Regulator is focused on coordinated, responsive and responsible decision making. Decisions are made while protecting public safety, respecting those affected by energy resource activities, conserving the environment, and facilitating equitable participation in production.

Please Note:

The Energy Resource Activities Act defines both energy resource activity and related activities and the Regulator adheres to the definitions. The Regulator's glossary and acronym listing is an extension of this manual and defines terms used throughout the energy resource activity. Applicants and permit holders should refer to the glossary to understand the exact definition of terminology as it may differ from other regulatory bodies. Due diligence is required to ensure proper understanding of terms, acronyms and legislation.

1.1 Regulator's Permitting Authorities

The Regulator's specific permitting authority is defined in the Energy Resources Activities Act (ERAA). In order to effectively function as a single-window regulator for energy resource activity in British Columbia, delegation agreements are in place to allow the Regulator to make decisions on certain energy resource and restoration activities within the parameters outlined in those agreements. In addition, certain authorizations granted through specific Acts provide the Regulator permitting powers under specified enactments.

Permits and authorizations granted by the Regulator include:

- Energy resource activity permits under the *Energy Resource Activities Act*, including well, pipeline, facilities, road and geophysical permits.
- Associated activity authorizations under the Petroleum and Natural Gas Act or Land Act, as applicable, including activities such as investigative use, aggregate operations, workspaces and camp sites.
- Authorizations and approvals under the *Water Sustainability Act*, including authorizations and approvals for changes in and about a stream, short-term water use and water licences.
- Waste discharge authorizations under the Environmental Management Act including approvals and permits for air emissions and wastewater.
- Non-farm use of lands included in the Agriculture Land Reserve (ALR), under delegated authority under the *Agriculture Land Regulator Act*.
- Master licences to cut and cutting permits and road use permits under the *Forest Act*.
- Archaeology-related permissions under the *Heritage Conservation Act*.
- Restoration activities under the *Land Act*.

Specific provincial authorizations related to pipelines subject to the Canadian Energy Regulator Act.

The Regulator provides regulatory oversight at every stage of energy resource development, working with a broad range of stakeholders. Regulator staff have the legislative authority to make decisions on proposed energy resource activities. In addition, the Regulator:

- Tracks permit holder compliance.
- Reviews operational submissions.
- Provides guidance and processes for operators to submit applications and operational requirements.
- Conducts inspections and responds to incidents.
- Takes compliance and enforcement action when needed.

Other Regulatory and Technical Considerations

In addition to the regulatory and technical considerations outlined in this manual, applicants and permit holders should be familiar and understand other provincial and federal regulations, local authority requirements, industry recommended practices, Canadian Standards Association, labour board laws, and workers compensation rules in order to operate in British Columbia.

1.2 Regulator's Application Process

Companies must adhere to the Regulator's application requirements throughout the entire application process. As shown in Figure 2, once pre-application requirements are complete, companies prepare and compile the relevant information for submission to the Regulator. Following application submission, the Regulator conducts a comprehensive technical review of the application based on the characteristics, location and circumstances of the activity.

Permits must be in hand before conducting any activity. Permits may have timelines and/or conditions attached and all conditions must be adhered to. Amendments are required to change or adjust existing permits. Amendment applications must be submitted to the Regulator.

1.2.1 Pre-Application Requirements

Pre-application requirements include securing tenure rights and conducting the required consultation and notification and/or engagement with landowners and/or rights holders. Applicants are also encouraged to engage First Nations prior to submitting an application. Project proponents are encouraged to discuss pre-engagement requirements with First nations with BCER staff.

Planning of energy resource activity should take into consideration the entire lifecycle of the project and the environmental and social impact of the proposed project. The Regulator makes available documents and data in the public zone of the website to assist in the pre-planning stages including:

- GIS data.
- Major projects coordination and information.
- Public engagement.
- Water information resources.
- Air quality

The Application Analysis Tool within the Application Management System can be used to assist with pre-application requirements.

Applications require engineering and technical information. This manual provides assistance in preparing complete and accurate data, attachments and requirements. This applies to both the company and agent or representative submitting information on behalf of the company.

Required Consultation and Notification

Consultation and notification activities are outlined in Chapter 6 of this manual. This formalized public engagement process allows landowners and affected parties to express concerns about proposed energy resource activity and encourages companies to work proactively and collaboratively with those affected by energy resource activity.

First Nations Pre-Engagement

Applicants are encouraged to work with First Nations to consider any environmental, heritage and/or community concerns impacted by energy resource activity. The Regulator suggests applicants initiate and build relationships with First Nations communities by discussing the proposed activities with the communities during the project planning phase and to continue the relationship throughout the project lifecycle. Further guidance on pre-engagement can be found here.

While not required prior to application, engagement with the public and First Nations within a pre-determined Emergency Planning Zone for Emergency Response Contingency Plans is encouraged since emergency plans must be in place for well, facility and pipeline permit holders prior to operation.

Surface Agreements on Private Land

The Regulator may permit the construction and operation of energy resource activities on private land, but access is subject to a land-owner agreement. If an agreement with the landowner cannot be made, the applicant or landowner may apply to the Surface Rights Board for assistance.

1.2.1 Application Submission and Review

To submit an application, operators access the Regulator's Application Management System (AMS). AMS is an online electronic application submission system, for the majority of energy resource and associated activities. Operators may apply for a single activity or multiple activities at the same time.

The application system utilizes spatial data submitted by the applicant to verify geographic location of proposed energy resource activity. The spatial data is an important component since it highlights both the activity and land required. The application system is prompted to automatically activate the specific application tabs based on the activity chosen and the spatial data. Applicants then move through a series of windows within AMS and are prompted to input engineering and/or technical data into the required fields. Additional supporting information may be required in the application information tabs.

The dashboard page serves as a home page once logged into AMS and provides the status of all applications.

Applications are validated by AMS to ensure all required fields and attachments are completed. Validation must be done before users may submit an application. Applicants can validate the application at any time however, the system will not allow submission of incomplete applications. Within the application tabs there is an overview menu which highlights all outstanding issues that must be addressed before the application can be submitted. The dashboard page can be utilized to follow the status of the application from data entry through to review and decision.

The application system and spatial data requirements are discussed further in Chapter 3 of this manual. Application requirements based on activity and geographic location are detailed in Chapters 4-7 of this manual.

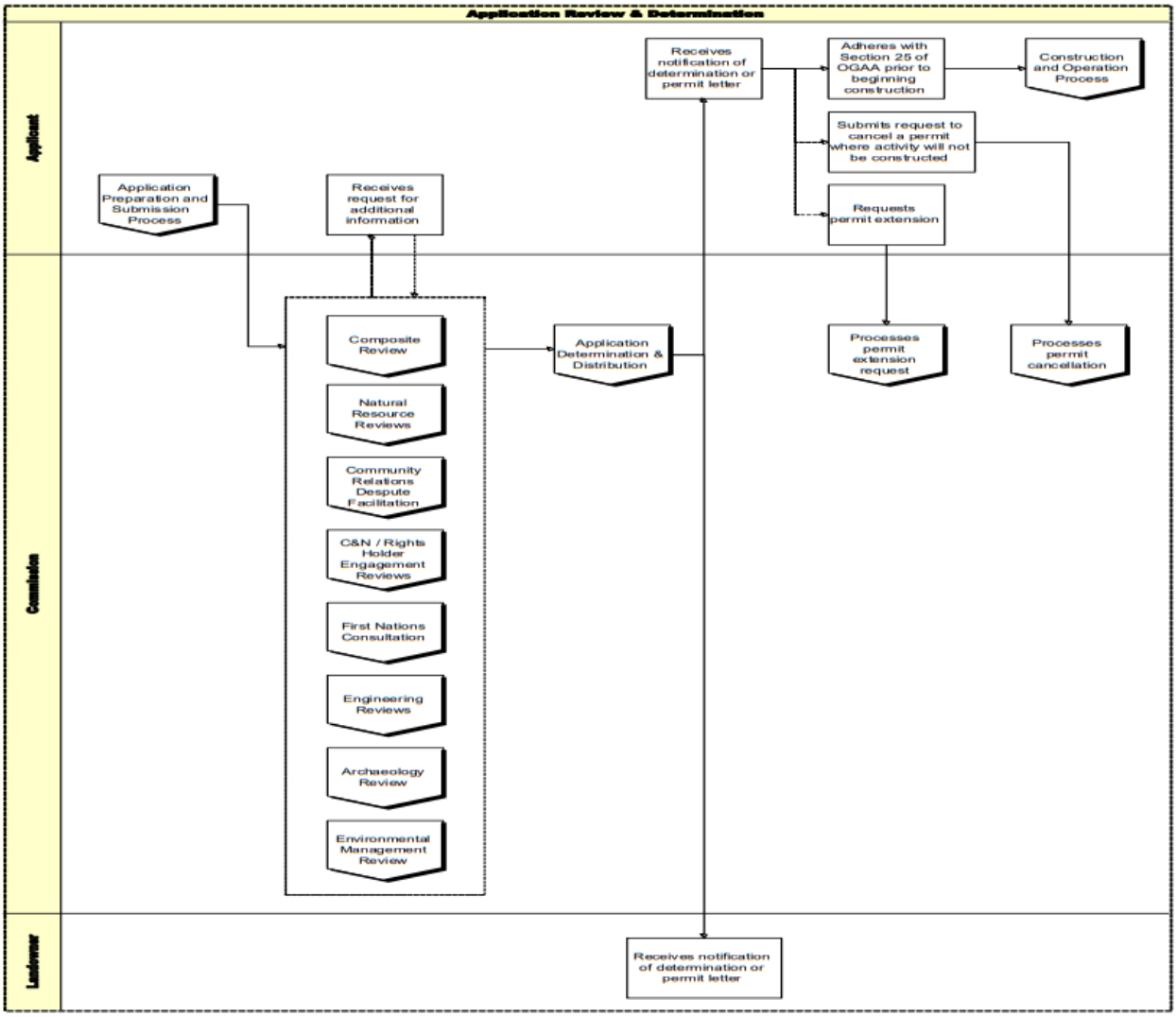
Important User Note:

An application that has had no activity for three months will appear on the dashboard with a status of "Timed Out", and then, after an additional three months of "Timed Out" status, the application is removed from the system. Once removed, the application cannot be retrieved.

1.2.3 Application Review

Once complete, the application is submitted to the Regulator for review. As shown in Figure 2 the Regulator conducts a wide range of technical reviews and carries out First Nations consultation during the review and determination process. Technical reviews include engineering, land and habitat, forestry, archaeology and environmental management.

Figure 2: Application Review and Determination Process



During the review and determination process, the Regulator conducts a wide range of engagement processes, actively liaising with First Nations, stakeholders, landowners and partner agencies. If the Regulator finds minor and/or major deficiencies, the Regulator contacts the applicant to clarify details, make revisions and/or provide additional information.

Applicants are able to monitor the status of an application by logging into AMS and checking on the status of the application in the dashboard. A report can be produced on the BCER website, which provides information regarding the status of the application,

The review process is also supported by dispute facilitation services offered by the Regulator's Community Relations department to aid in communication and resolve interest-based differences between applicants and recipients. Further information on the consultation and notification process is detailed in Chapter 6 of this manual.

Amendments to Permits

Permit holders must submit an amendment application to add, modify or change any permitted energy resource activity and/or associated activity except those activities that meet the criteria for notification. An amendment can include requests for multiple changes to a permit. Multiple amendment applications cannot be submitted for the same permit at the same time. The Regulator will consider only on amendment application per permit at a time.

Engagement, consultation and notification requirements must be met if changes create alterations to the previous engagement, consultation and/or notification.

Please Note:

AMS will restrict the ability to create a duplicate proposed amendment application when an existing amendment application exists with a status of 'In Progress', 'In Revision', or 'In Review'.

Application Withdrawals

A request to withdraw an application must be received by the Regulator from the applicant company after the application has been submitted but prior to a decision being made on the application.

Requests for application withdrawal are made by email submission to a Regulator Authorizations Director. Once a withdrawal request is made, the Regulator review team must accept the withdrawal. The application fee is charged to all applications and amendments submitted, regardless of whether or not a permit is granted. Once a withdrawal request is accepted by the Regulator, the application remains visible on the dashboard page, symbolized by an "x" icon. The dashboard page is discussed in further detail in Chapter 3 of this manual.

Applications not yet submitted may be discarded by authorized users without any acceptance by the Regulator. Once discarded, all data will be deleted and cannot be retrieved. A new application must be created if the applicant later decides to proceed with the application.

Application Revision

If the Regulator finds minor and/or major deficiencies in the application, or requires additional clarification, the Regulator will contact the applicant to obtain additional information, clarify details or request that the applicant revise their application. Additionally, an applicant may wish to revise the application for a variety of reasons, including a revision to reduce the overall footprint of the activities within the application. If a revision of application information or spatial data is required, the applicant company must send an email to revisions@bc-er.ca, to request that the application status be set to 'In Revision'. This will allow the applicant company or representative working on their behalf, to upload the revised spatial data package or change the application information. The subject line of this email must identify the email as a revision request, and include the pertinent AA#, applicant company name, and activity type(s) included in the application. This email must also include details on the reason for the revision request.

If changes to the original application are made, the applicant must enter a description of the changes in the revision explanation text field provided on the AMS application overview page. If more space is needed to describe the changes, the applicant must upload a rationale document or email that outlines the changes, and where applicable, provide a more detailed summary of revision request. In a case where an application is set to 'In Revision' multiple times, this summary must include reasons and details on changes made to the application for the current revision as well as all prior revisions. Applicants should review all application information to ensure all necessary changes are made prior to submission of the revised application.

Depending on the nature and scope of the revision, additional fees may be calculated. Applicants can upload attachments into AMS for applications with a status of 'In Review', without a status change to 'In Revisions'.

Please Note:

Upon receipt of a revised application, where the only change made was to reduce the overall disturbance (i.e. no additional activities have been added to the application, no changes were made to technical details, no additional land was added that was not included in the original or previous versions of the application) the BCER will send a notice to pertinent First Nations communities to inform them of the change. The BCER will continue with any consultation activities already in progress and will not reopen consultation activities that were concluded on the previous version of the application. Other application reviews (i.e. Land and Habitat review, Archaeology review, technical reviews, etc.) will be carried out on the revised application; however, these reviews are expected to be brief in most cases.

Application Contacts

When the Regulator needs to contact the applicant to clarify details, make revisions, request additional information and/or distribute permits, the Regulator will use the contacts as provided in AMS application. The contacts will be utilized by the Regulator for email correspondence as follows:

- The main Proponent contact name and email shown on the Overview screen, which is selected by the applicant, will be the main contact for all on all emails from the Regulator.
- The Contact e-mail shown on the Overview screen; which auto populates as the default contact set up in the Corporate Registry, will be copies on all emails from the Regulator.
- If a referral agent or land agent is listed in the Administrative tab, they will be copied on all correspondence.
- If an Environmental specialist is listed in the Administrative tab they will be copied on all environmental related correspondence.
- If an Archaeologist is listed in the Administrative tab they will be copied on all Archaeology related correspondence. Please also note that an Archaeologist contact is mandatory should the application have an Archeology component.
- If more than one person is listed per company/contact in the Administration tab, the Regulator will only copy the first person listed and it will be the responsibility for the company/contact to distribute internally/externally as appropriate.
- If an Engineering contact is listed in the Administrative tab they will be copied on all engineering related correspondence. Please also note that an Engineering contact is mandatory should the application have an Engineering component.
- Post approval, the Regulator will distribute electronic copies of permit documents to the Proponent Contact and all Permit Distribution Contacts listed by the applicant on the AMS overview screen.

Please Note:

Contact information shown within the contact drop down list under the Administration Tab populates from accounts in the BCER KERMIT Registry. If a specific contact is not available in the contact drop down list; the contact must ensure an account has been created. A contact can create an account by clicking on the link located under the header "Creating your account" on the Online Systems Accounts page located on the BCER website. The Online Systems Accounts page can be found by clicking on Energy Professionals in the top right-hand corner of the website.

1.2.4 Application Post-approval

Post-approval, activities must be carried out in accordance with the permit, ERAA, regulations and any other applicable laws. Permit holders must adhere to the operational and reporting requirements throughout the life cycle of the energy resource and associated activity. Operational manuals are found on the documentation section of the Regulator's website.

Once a permit is issued, permit holders are responsible for all permit holder obligations (as defined in ERAA), including outcomes of actions of contracted personnel in carrying out permitted energy resource activities on behalf of the company.

An applicant or permit holder may have the right to review and/or appeal a determination as established in ERAA. Guidance on the review process is found in Chapter 7 of this manual. Instructions regarding appeals are obtained from the Energy Resource Appeal Tribunal.

Construction Start Dates

Permit holder must wait 15 days from the day the permit is issued before commencing an energy resource activity on private land, unless the landowner has consented in writing that the energy resource activity may commence. Written consent from a landowner is not required to be submitted to the Regulator; however, the permit holder should retain records.

The permit holder must submit a notice of construction start to the Regulator prior to the start of construction activities. Leave to open is required prior to operation of a pipeline or facility. Minimum time requirements for submission of notice of construction start for various activities are outlined in the regulations and permit conditions specific to the activity.

Notice of Maintenance

The permit holder must submit a notice of maintenance to the Regulator two (2) working days prior to the commencement of any change in or about a stream associated with maintenance activities, as authorized in the permit. Minimum time requirements for submission of notice of maintenance for various activities are outlined in the regulations and/or permit conditions specific to the activity.

A Notice of Maintenance is submitted by completing a Notice of Maintenance form and submitting by email to ExternalNotifications@bc-er.ca

Emergency Planning and Response Programs

The Hydrogen Facility Regulation requires Class 1 and Class 2 permit holders to prepare and maintain an emergency response plan. Requirements are outlined in Part 5 - Division 3 of the regulation. For further information on BCER guidance for emergency response and safety, additional resources can be found on the BCER's website.

1.3 Applicant Obligations

In preparing and submitting an application, applicants are expected to consider the environmental and social impact of the proposed energy resource activity. Companies must, as part of the planning stages, take into consideration the surface and subsurface locations in order to minimise impacts on the social and environmental values. It is the expectation of the Regulator that the energy resource sites, once deactivated, will be restored and reclaimed at the end of the project; therefore, careful planning beforehand is required to ensure a successful project end.

When completing application and/or submitting additional reports, companies must provide engineering and technical information on activities carried out during the proposed term. Companies must provide true and accurate information and not knowingly omit relevant information. All data, attachments and requirements must be complete and accurate. If an agent or

representative submits information on behalf of the company, the applicant remains accountable for the accuracy of the submission.

Activity Area Overlapping a s.16 or s.17 Land Act Disposition Established by the Ministry of Forests

Applicants wishing to submit a new application or an amendment must consider proposed activities that fall within a s.16 or s.17 *Land Act* disposition that has been established by MOF. For proposed activities that will impact land subject to a s.16 or s.17 *Land Act* disposition, applicants must complete a FrontCounter BC Application Form for Proposed Activities within Established Section 16 or 17 *Land Act* Dispositions and submit the form, prior to commencement of operations, to FrontCounter BC to request a decision whether to amend the *Land Act* disposition or determine compatibility to the established disposition. For activities located within established section 16 or 17 Land Act dispositions within the northeast, please contact the BCER for more information.

Permit holders must obtain approval (as defined in ERAA) before starting any energy resource or associated activity(s) and should maintain ongoing dialogue with the Regulator and stakeholders throughout the lifecycle of the project. This includes operational and reporting requirements and continued engagement as defined in operations manuals.

Once approved, permit holders bear responsibility for all permit holder obligations (as defined in ERAA), including outcomes of actions of contracted personnel in carrying out permitted energy resource activities on behalf of the company.

1.4 Compliance and Enforcement

Applicants have a legal obligation to meet all legislated requirements. The Regulator expects applicants and permit holders to use formal practices in day-to-day operations and comply with the *Energy Resource Activities Act*, the Regulator's specified enactments, and all related regulations.

The Compliance and Enforcement Manual provides further information about the Regulator's compliance and enforcement processes. It is the permit holder's responsibility to know and uphold any legal responsibilities inside and outside of the Regulator's legislative authority. The Regulator audits and inspects permit holder activities and investigates incidents of alleged non-compliance.

1.5 Regulator Authority under Section 26 of ERAA

Under Section 26 of the *Energy Resource Activities Act* (ERAA), the Regulator has the authority to refuse, suspend, cancel, or amend a permit.

When making a decision under Section 26, the Regulator can consider the conduct of an applicant or permit holder. In addition, the decision maker may look beyond the applicant or permit holder to

consider the conduct of a person (which includes a corporation) associated with an applicant or permit holder.

An associate means any of the following:

- An agent of the applicant or permit holder;
- A director, officer or shareholder of the applicant or permit holder;
- A person who, in the Regulator's opinion, may have influence over the applicant or permit holder or may be able to affect the activities permitted by the permit.

Section 26(2) and (3) of ERAA provide a non-exhaustive list of circumstances that may trigger a decision under section 26. The following is a list of factors that the Regulator may consider in making a decision under Section 26(1):

- Compliance history of the applicant or permit holder, or an associate of the applicant or permit holder.
- Corporate structure of the applicant or permit holder, or an associate of the applicant or permit holder.
- Experience of the applicant or permit holder, or an associate of the applicant or permit holder.
- Financial health of the applicant or permit holder, or an associate of the applicant or permit holder.
- Financing of the applicant or permit holder, or an associate of the applicant or permit holder.
- Outstanding debts owed to the applicant or permit holder, or an associate of the applicant or permit holder.
- Outstanding non-compliances of the applicant or permit holder, or an associate of the applicant or permit holder.
- The applicant or permit holder, or an associate of the applicant or permit holder, has been convicted of an offence as described in Section 26(2)(f) of ERAA.
- Involvement of the applicant or permit holder in bankruptcy or receivership proceedings.
- Involvement of an associate of the applicant or permit holder in entities that have initiated or are subject to bankruptcy or receivership proceedings.

In addition, the Regulator may make a decision under Section 26(1) of ERAA where there is a relationship (such as employer/employee, officer, director or agent) between an applicant or permit holder and a permit holder that has previously been the subject of a decision under Section 26(1).

Before making a decision under Section 26(1)(b), (c) or (d) of ERAA to suspend, cancel or amend a permit, or under Section 26(5) of ERAA to suspend or cancel an authorization for a related activity, the Regulator must provide the permit holder with an opportunity to be heard. The opportunity to be heard may be conducted in the time and format the Regulator deems appropriate, pursuant to Section 80 of ERAA.

1.6 Freedom of Information & Protection of Privacy

Throughout the course of application preparation and planning, the information collected from a person or other entity may contain personal information as defined by the *Personal Information Protection Act* (PIPA). Private sector organisations collecting personal information in British Columbia are subject to the PIPA, which sets out the rules for how personal information may be collected, used or disclosed.

Applicants and permit holders should comply with PIPA when collecting information from persons or entities and can contact the Office of the Information and Privacy Commissioner for British Columbia for more information.

As a public body, the Regulator is subject to the *Freedom of Information and Protection of Privacy Act* (FOIPPA). Any personal information contained in plans or applications submitted to the Regulator are subject to the protection and security requirements identified in FOIPPA.

1.7 Professional Reliance

This manual specifies instances where the Regulator will rely on Qualified Professionals to conduct necessary works and provide the necessary information that the Regulator requires to be able to make defensible determinations and to confirm that proposed development activities conform with regulation.

The Regulator considers a Qualified Professional to be those individuals who are registered members of one of the regulatory bodies defined in section 1 (1) of the *Professional Governance Act*. A Qualified Professional can also mean an individual, through suitable education, experience, accreditation and knowledge, may be reasonably be relied on to provide advice within the individual's area of expertise as it relates to the matter. Qualified professionals include:

- Agrologists
- Applied Biologists
- Applied Science Technologists & Technicians
- Engineers and Geoscientists
- Forest Professionals

All work submitted by Qualified Professionals must be within their scope of practice and consistent with the standards and practices of their Professional Organization.

Any works submitted which the Regulator deems inconsistent with the standards and practices of the professional organization or outside the professional field of study will be forwarded to the Professional Organization for review and potential disciplinary action.

The Regulator requires that Qualified Professionals signing off on any environmental assessment and mitigation works provide the following Professional Declaration:

- The assessment of that activity referred to in this report has been conducted in accordance with the standards and practices of the professional organization of which the signer is a registered member.
- The reported information is true based on the signatory's current knowledge as of the date completed. Where data gaps exist in the report, the judgment of the Qualified Professional has been used.
- The signatory has demonstrable experience within the field of work and/or practice for which the statement applies.

Chapter 2

2. Requirements for First Time Applicants

This Chapter details the administrative requirements of all first-time applicants in order that a company may begin the application submission procedures. Applicants engaging in energy resource activities must complete all pre-application requirements as detailed in Chapter 1 and must be registered in the Regulator's corporate registry.

New applicants must register with Petrinex as a Business Associate (BA) and complete a Master Licence to Cut Application Form (MLTC) if they will be submitting applications which require new cut under Cutting Permits (CP). In addition, companies are required to set-up administration and account information in order to use the online submission application system. Both new companies and existing companies are responsible to ensure the account information is current and up to date in the corporate registry.

2.1 New Business Associates

The Regulator maintains a corporate registry of companies. The New Business Associate Identifier Application in Petrinex captures general administrative and corporate registry information and is required before submitting an energy resource activity application(s). A New Business Associate Identifier Application and the required attachments are submitted to the Regulator via Petrinex for approval. For more information, refer to the Regulator's Permit Operations and Administration Manual.

BC Corporate Registration

In order to conduct business in British Columbia, a company must be registered in BC Registry. A copy of the corporate registry certificate must accompany the New Business Associate Identifier Application.

Company Administration & Account Information for Regulator Information Systems

As part of the New Business Associate Identifier process, the Regulator creates a system administration account for the applicant company. Companies must then designate authorized individuals with an application security role on behalf of the company. Companies are required to assign roles in the corporate registry as follows:

1. Finance role assigned to an individual for managing account information and giving individual(s) authorization to make payments.
2. Application and/or Application Analysis Tool security roles assigned to representatives for validating and uploading spatial data; inputting technical data and other required application information. Each representative is registered as a person then granted a security role from an energy resource company.
3. Administrator role with security to set up and administer account roles.

Users may access the Application Management System or KERMIT from the Regulator's website. It is recommended to access the online systems through a high-speed internet connection to

maximize performance. Only one account is required to access and use the Regulator's Online Services, including KERMIT and the Application Management System. KERMIT is the Regulator's Knowledge, Enterprise, Resource, Management, Information and Technology data system. Kermit enables electronic submission of performance and/or compliance data and accepts various operational submissions related to energy resource activities post approval. Access to the KERMIT system is available on the Online Services page of the Regulator's website.

New Representatives

New representatives must create a KERMIT account using the Regulator's Online Services page in order to be selected by an applicant as part of a permit application in AMS.

Once the account is created, the representatives should contact the company administrator of their organization to grant proper security roles. If the representative's company does not exist in AMS, the New Business Associate Identifier process must be completed in Petrinex.

New representatives must also contact the applicable company administrator of the representative's company to ensure the appropriate permissions are assigned to the new account.

Master Licence to Cut

A Master Licence to Cut Application Form (MLTC) must be completed and submitted before applying for any energy resource activity. The MLTC governs cutting permits authorizing the removal of timber on Crown land and a separate MLTC is required for each forest district. For more information, refer to the Regulator's Permit Operations and Administration Manual.

Chapter 3

3. Application Management System Submission Process

This chapter walks an applicant through the steps of applying, submitting and confirming an application using the Regulator's online application system. The system is used for the majority of energy resource and associated activity applications.

The Application Management System is an online portal applicants use to submit energy resource and associated activity applications. Users may prepare multiple applications at the same time by selecting one or all of the activities of the project. Multi-activity applications provide a complete picture of the project, and the Regulator encourages applicants to consider applying for all activities at the same time. More information on how to use the system can be found in the AMS User Manual.

AMS allows application information to be completed online. Attachments are uploaded directly. The online application submission process includes:

- Using the analysis tool
- Reviewing the dashboard
- Creating a new application
- Uploading spatial data
- Completing an application
- Validating an application
- Submitting completed application
- Paying application fee

Registered applicants are ready to begin the application submission process once the pre-planning stages (Chapter 1 of this manual) are complete and the administrators and/or agents for a company are registered in the Corporate Registry (Chapter 2).

Application Management System Analysis Tool

Since the surface location of energy resource and associated activities is one of the pertinent pieces of information used in the planning and preparation stage, applicants are encouraged to use the Application Analysis Tool in AMS for pre-planning. This tool provides applicants the ability to plan the location of the proposed activity and validate shapefiles for most applications, prior to submitting an application. With this tool, applicants are able to identify potential conflicts to find the best location for an activity and determine what information will be required at the beginning of the application process. Applicants can also generate an Application Analysis Report, prior to the application creation, that indicates what social and land values will be impacted by a project's proposed location.

This information may then be used to plan engagement activities and/or mitigation strategies. Due diligence must be done by the applicant to verify information and application requirements, including but not limited to the land area.

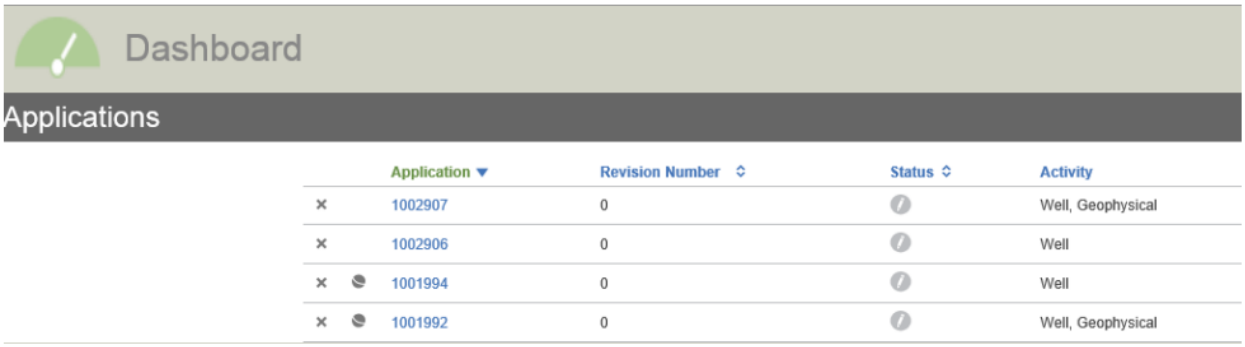
Once an applicant is satisfied with the proposed location(s) and the shapefile has been validated, users with the appropriate security role can create the application through the Application Analysis Tool. At this time, only new applications may be validated and created using the Application Analysis Tool. Shapefiles and applications for amendments and historical submissions cannot be validated and created using the Application Analysis Tool.

Shapefile templates representing the mandatory requirements and correct structure of each activity type are also available for download on the Applications Analysis Tool page. For information regarding the requirements and procedures for preparing the spatial data packages for AMS, see the Regulator's AMS Spatial Data Submission Standards Manual.

3.1 Application Management System Dashboard

The dashboard lists all applications created by the user and the status of the applications including: saved drafts, submitted, withdrawn and in review. For those users with the application security role, the dashboard page can be accessed as it is the main screen and greets users upon sign-in. Users with only the Application Analysis Tool security role, will land on the Application Analysis Tool page. An example of the dashboard screen is show in Figure 3.

Figure 3: Screen Shot of Dashboard Page



3.2 Creating a New Application

New applications or amendment applications are initiated in the AMS Create Application screen and/or from the Application Analysis Tool. It is recommended that spatial data shapefiles are validated, where applicable, prior to creating an application. Applicants are prompted to identify the application type, applicable activities, proponent name and description of proposed project.

New applications may be for a single activity or multiple activities. The Regulator encourages applicants to apply for the entire project at the same time by creating a new application and selecting each activity required for the project (i.e. multiple activities).

Please Note:

The Application Management System requires specific spatial data standards to appropriately populate both activity and application information. Depending on the activity and application type, the spatial data requirements may be different. Refer to the Application Management System Spatial Data Submissions Standards Manual for more information.

3.2.1 Activity Types

Applicants are prompted to select the activity type(s) for all proposed activities required for the project. Users are able to create multi-activity applications by selecting one of all of the activities of the project. In addition, when applying for an energy resource activity which requires short-term water use or changes in and about a stream, applicants must be diligent in applying for all activities in order to ensure regulatory compliance. Applicants are asked to select the appropriate energy resource application submission type as follows:

- New ERAA activity including facilities, pipelines, roads, geophysical and related activities which are associated activities and *Water Sustainability Act* authorizations.
- Amendment applications when changes to existing permits are required.

3.2.2 Construction Corridor

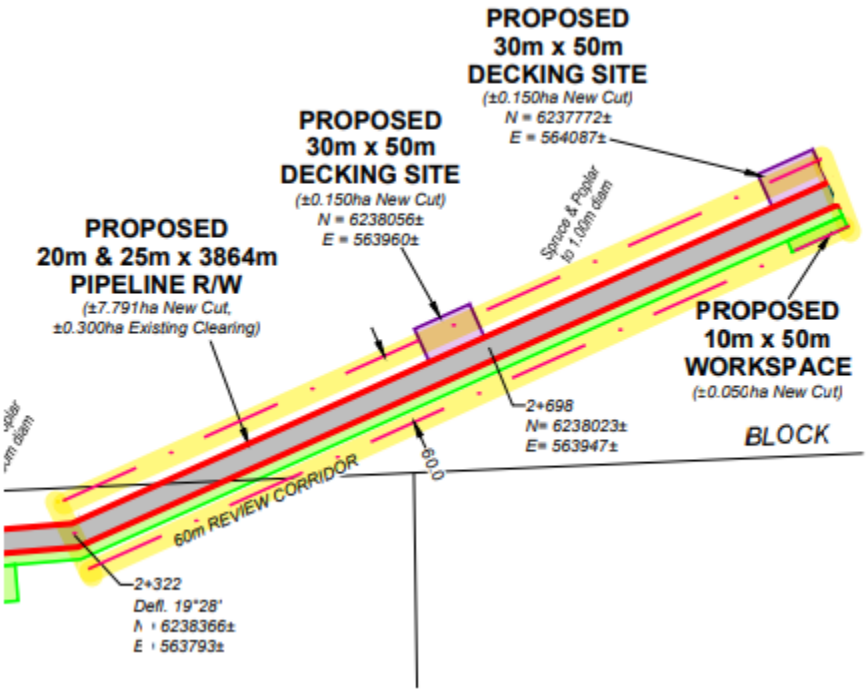
A construction corridor is an additional area mapped and shown spatially around the application area that allows a permit holder some flexibility in the movement, placement and construction of a permitted energy resource activity. Using this approach can greatly reduce the need for permit amendments, subject to the terms and conditions of the permit.

If a construction corridor will be used, the application must identify the total proposed area of each activity within the construction corridor and their proposed location(s) on both Crown and private land. The width and size of the construction corridor is left to the discretion of the applicant. The construction corridor must meet all application requirements, as though it was part of the activity footprint. This includes but is not limited to environmental and archaeological assessments; First Nations engagement as well as consultation and notification or rights holder engagement.

Any changes made from the permitted area within the construction corridor must be reflected on the post construction plan submitted to the Regulator. Upon acceptance of the post construction plan, all activity placements are final; any future modifications would require an amendment.

Construction corridors are a particularly useful tool for investigate use applications, microseismic applications, or for any application where there is some uncertainty regarding logistics, terrain or potential construction constraints that are anticipated to arise during final layout or construction.

Figure 4 – Sample Pipeline Construction Corridor Mapped Area



3.3 Uploading Spatial Data

Spatial data uploaded by the applicant pre-populates spatially derived application requirements based on geographic location of the energy resource and associated activities and any overlapping or intersecting points. Spatial data is required regardless of land status. There are very few exceptions where spatial data is not required.

Spatial data for AMS must meet stringent data standards in order to be accepted by the system. Shape file templates are available for download within AMS to support spatial submissions. Business validation rules specific to the spatial data must be followed when preparing spatial submissions. Applicants should review the business validation rules listed and technical guidance in the Regulator's Spatial Data Submission Standards Manual.

Spatial submission standards must be upheld when uploading spatial data as part of an application. It is recommended to validate shapefiles prior to uploading spatial data into an application to ensure it meets the standards. The Regulator is not able to accept spatial submissions other than those which meet the standards.

In each activity-specific section of AMS, a globe symbol references spatially derived information that populated from the uploaded spatial data. The map is viewed anytime by clicking on the map icon at the top of the screen.

Please Note:

When uploading new spatial files into AMS for an application, previously entered spatial data will be overwritten by the system and replaced with the new spatial data. This will also delete any other information entered in the system that was related to the previously submitted spatial data.

3.4 Application Management System Business Identification Numbers

To support the transformation to multi-activity applications, the Regulator's Application Management System uses unique numeric identifiers to identify both applications and activities. A unique identification number is given to all applications, spatial data polygons, activities and specific parts of activities as follows:

Application Number

Each application submitted in AMS is assigned a unique nine-digit application number. This number is automatically generated at time of application and is visible on the dashboard page. Applicants can search for an application by this number. The application number represents all activities included in the submission.

Application Determination Number

An application determination number is assigned to an approved or permitted activity or set of activities (multi-activity application). The determination number can be referenced by the permit holder for amendments.

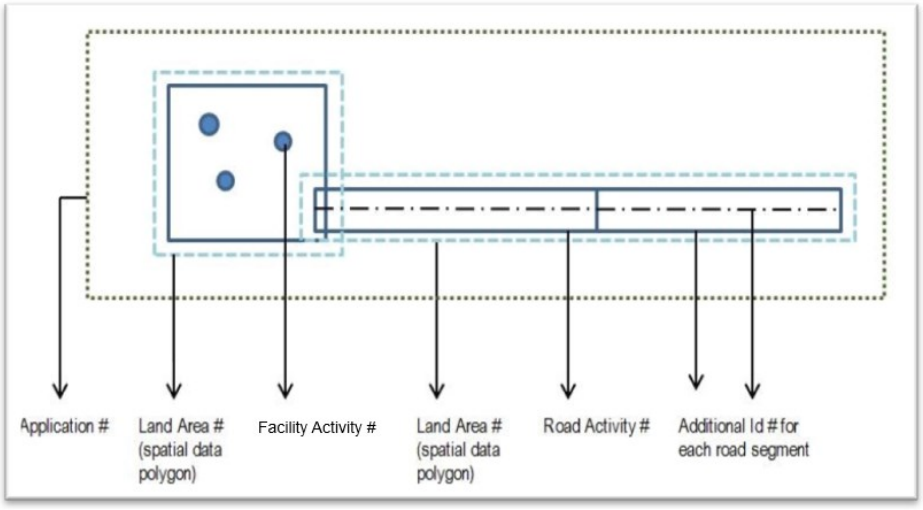
Land Identifier Number (Land ID)

Applications requiring land area must include one or many polygons. Each individual polygon is assigned a unique nine-digit land identifier number (LAND_ID). It is automatically generated by the system and is referenced by the permit holder throughout the lifecycle of a project, including amendments and post permit activities. For example, a pipeline project right of way crossing Crown and private land must be submitted as two individual polygons, each of these polygons is assigned a unique LAND_ID.

Land Area Number (LA NUM)

Multiple unique polygons uploaded together and representing all land required for a particular activity, are assigned a nine-digit Land Area number (LA_NUM). For instance, a pipeline project right of way crossing Crown and private land will have individual polygons with each unique polygons having its own Land ID number. Those Land ID numbers roll up to one Land Area number for the entire project. Some activities, such as a well site area of facility area is assigned a Land ID that will be the same as the Land Area number. The Land Area number enables a complete land-based review at a comprehensive level.

Figure 5: Example Identification number assignment to spatial polygons, groups of polygons, activities, and parts of activities



Activity Identifier Number

Each activity within the application is assigned an Activity Identifier Number. This number is automatically generated by the system. An example of a specific Activity Identifier Number would be each facility in an application that includes multiple facility types would be assigned a unique Facility ID (FAC ID) number. The Activity Identifier Number is relevant during the application stage as information and/or data for each activity is required and must correspond to the correct identifier number as presented in the activity information tab.

In addition, permit holders must refer to this activity identifier number for permit holder reporting and submissions.

Additional Identification Numbers

For some activities, for example, road segments; pipeline segments and pipeline installations an additional number is assigned to each part of the activity. The assigned segment number is automatically generated by the system. As with the activity identifier number, the identification number is relevant for permit holder reporting and submissions.

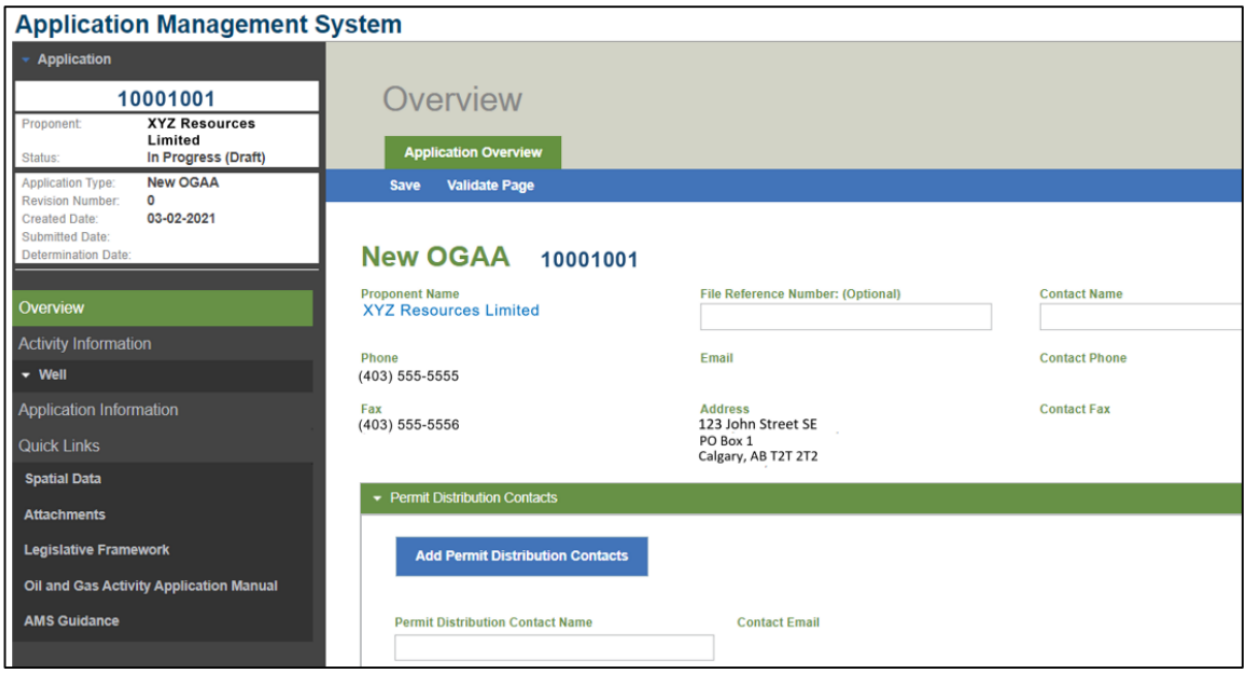
3.5 Completing an Application

Based on the activities identified by the applicant and the spatial data, AMS populates some data fields under the activity-specific and application tabs. The system prompts applicants for remaining mandatory activity-specific engineering and technical information as well as, additional information to support the application and upload attachments.

User Navigation

The Navigation panel as shown in Figure 6, provides applicants with the ability to move between various tabs within an application and link to additional resources such as, application documentation, guidance, and the Regulator's regulatory framework.

Figure 6: Screenshot of Navigation Panel and Overview Page



Applications may be validated and then saved at any time. The validation tool will assist in highlighting any missed data input.

While an application is in progress (draft), users are able to add information and/or upload attachments over a period of time, returning to AMS and continuing to enter data without any interruption or loss of information.

Overview Screen

The overview page (as shown in Figure 6 above) provides a summary of the application and activity applied for. The overview page is accessible after creation of the application and is specific to each application.

3.6 Data Field Completion

Application submission requires the input of technical and engineering information by following the instructions, answering questions and entering data where required within the Application Management System. The data input fields are defined where necessary through hover over hints, links to glossaries and to this manual.

Some spatially derived data fields are identified with a globe symbol. This symbol indicates data is pre-populated by spatial data. Applicants have the ability to alter some of the data fields (altered data is italicized) if required. Applicants will be prompted to enter a reason for change when altering spatially derived fields in an application.

Additionally, spatially derived data fields may trigger additional requirements. Some fields may not be visible if information is not required.

The validation button assists in verifying a complete application. Outstanding requirements, for example: fields not yet completed and/or attachments not yet uploaded, are highlighted in the application overview and on the validation screen. All mandatory data fields must be completed in order for the Application Management System to allow submission.

Attachments uploaded must meet specific size and file formatting restrictions as defined in Section 5.7 of this manual. Attachments are summarized in the Attachments tab.

In addition to this manual, hover-over hints within AMS provide quick guidance on what data is required for a specific data field.

3.6.1 Application Information Tabs

Application information to support the activity may be required depending on the type and location of activity. As shown in Figure 7 below, all tabs within the application information section are visible to the user, although not all tabs require populating of data. Requirements for spatial data are detailed Section 3.3 of this manual and all other information tabs are presented in Chapter 5 & 6. Application information tabs include:

- Spatial data
- Administrative
- Land

- Forestry
- Stewardship
- Agriculture
- Archaeology
- Consultation and Notification
- Rights holder
- First Nations
- Maps and Plans
- Attachments

Figure 7: Screenshot of Application Information Tabs

3.6.2 Activity-specific Tabs

Activity-specific tabs are only activated if the activity is chosen when creating a new application or if an additional activity is added to the draft application. Activity-specific requirements are detailed in Chapter 4 of this manual and include:

- Facility

For other associated activities, please refer to the Oil and Gas Application Manual, Chapter 4 for guidance.

- Pipeline
- Geophysical
- Road
- Associated activity
- Short-term use of water
- Changes in and about a stream

3.6.3 Validating an Application

The AMS validation feature is used to ensure applications are complete and correct prior to submission to the Regulator and can be used at any time when completing the activity and application tabs.

If an application is incomplete, AMS provides a checklist of outstanding items to be completed or corrected before the application can be submitted.

Once validated successfully, click on the Submit Application button and the Application Management System will confirm application submission. The submission of the application prompts AMS to produce an invoice for payment, if applicable.

3.7 Paying Application Fee(s)

Energy resource activity applications are subject to the application fees prescribed within ERAA and the *Fee, Levy and Security Regulation*. An online portal used to pay for various Regulator fees and levies (ePayment) allows applicants to pay application fees electronically.

One an application is finalized and submitted, the Application Management System calculates application fees and issues an invoice in ePayment. All invoices must be paid by electronic funds and set up using a Pre-Authorized Debt (PAD) agreement.

If the user is not set up with administrative abilities to pay invoices, the invoice is forwarded to the account administrator on file. The user can elect to pay application fees at the time of application submission or use the 'Pay later' function to delay payment for up to 30 days. To pay, an administrator with the ability to pay invoices signs into ePayment and may pay one or multiple invoices at the same time. ePayment provides confirmation of payment information.

An invoice must be paid, regardless of whether or not a permit is granted. Failure to submit payment may result in actions taken by the Regulator including but not limited to:

- Compliance order
- Contraventions or offences under ERAA
- Suspension of permit, preventing activity happening on specific permit or other permit.

Applicants with invoices more than 30 days in arrears may not be able to submit new applications. The Application Management System gives a warning upon login to pay outstanding invoices before proceeding with any new applications or amendments.

3.8 Review Process

Once an application is successfully submitted by the applicant, the Regulator begins its review. Only submitted applications are reviewed by the Regulator.

Chapter 4

4. Completing Activity Details

This chapter provides a comprehensive walk through of the Regulator's requirements for completing the hydrogen manufacturing facility activity details in the Application Management System. The Oil and Gas Activity Application Manual has guidance for activities that may apply to a hydrogen project. It is recommended that if a proponent is carrying out pipeline, geophysical work, road construction, carrying out associated activities, short term water use, or changes in and about a stream, they should review the requirements for those tabs in the Oil and Gas Activity Application Manual.

Activity-specific tabs are only activated once a new (or amendment) application is created and is based on the activity (or activities) chosen when creating a new application. In addition, the Application Management System is designed to pull geographic location and coordinates from the spatial data uploaded during the application creation stage which triggers activity and land information. A globe symbol references spatially derived information from the spatial files uploaded.

Additional supplementary information to support the activity may be required depending on the type of activity, location and engineering and technical details provided in the activity tab. The application information tabs are visible, and the validation tool will assist in ensuring all components of the application are completed. The requirements for the application information tabs are detailed in Chapter 5 of this manual.

4.1 Facility Activity Tab

Applicants applying for a facility permit must complete the facility application tab in the Application Management System. The facility tab is made up of three components: facility overview; facility details including equipment details, technical specifications and exemptions; and land details.

This section includes an overview of facility permitting, guidance regarding facility planning and design, details related to facility-specific application requirements and detailed instructions for completing the data fields within the facility tab.

4.1.1 Facility Permitting Defined

Facilities are an energy resource activity, and are defined in ERAA as:

> A system of vessels, piping, valves, tanks and other equipment used to gather, process, measure, store or dispose of petroleum, natural gas, water or a substance referred to in paragraph (d) or (e) of the definition of pipeline.

Approved energy resource applications receive a permit under Section 25 of ERAA to carry out construction and operations pertinent to the activity. The permit expires where construction activities have not started within two (2) years of permit issuance. Unless expired, the permit remains active until cancelled, suspended or declared spent, according to the provisions of ERAA.

Facility Types

Applicants must apply for a specific type of facility. The appropriate facility type must be selected in the facility details component of the facility tab in the Application Management System. In this case Hydrogen Manufacturing Facility should be chosen (all the various types of facilities are further defined in the Regulator's Glossary).

Facilities and operational equipment required in energy resource activities, whether temporary or permanent require a facility permit. The facility application tab in AMS is used for all facility applications, whether within an existing right-of-way, facility site or over new Crown land or private land.

Facility Names

Facility names are generated and populated into AMS automatically when spatial data is uploaded. Facility names are based on information gathered at the application stage and formatted as follows:

Operator Abbreviation – Oil & Gas field name – NTS/DLS Location – Name Qualifier

AMS will spatially derive the oil and gas field name or display 'not found' when a facility location is not located within a defined field. When 'not found' displays, applicants may select the nearest appropriate field from the oil and gas field name drop-down list or enter the nearest geographical location. If hydrogen facilities are proposed outside of traditional oil and gas operating areas, in these cases when choosing 'Other Areas', proponents should input the municipality where the project is located into the 'specify area' text field.

Facility Numbering

Upon issuance of a facility permit, the Regulator's information systems will assign a facility identification number (FACID) to the facility. The codes are used to track facilities and associated operational submissions in the Regulator's KERMIT information system.

4.1.2 Creating a New Facility Activity Application

New Facility Application

A new facility application is submitted to obtain a facility permit on either a new facility area or on a previously permissioned facility area. A permit is required prior to any construction or installation of equipment and flow of product.

Facilities can be applied for individually or with other energy resource activities as part of a multi-activity project application. The AMS generates data input requirements for additional activities specified within the spatial data upload.

Facility Permit Amendments

An amendment must be submitted for:

- Proposed facility modifications beyond what is specifically authorized in the permit
- Proposed facility modifications which would result in inconsistency between the facility configuration and information submitted in the permitting process,
- Any activities where work creates, changes, or otherwise impacts facility emissions (e.g. effluent discharge, atmospheric discharge, etc.)

Note: Submissions included with amendment applications must clearly indicate the proposed changes associated with the amendment.

4.1.3 Facility Planning and Design

This section provides typical planning and design requirements, guidelines and considerations when planning and designing a facility for an energy resource activity application. The standards and guidelines presented here form a substantial basis for assembling and application. The Regulator reviews the facility application relative to the engineering and technical information provided in the Application Management System; therefore, applicants should review this section for an indication of any application requirements or attachments required in relation to the required components.

Regulatory Requirements

Class 1 and Class 2 hydrogen facilities must meet the design and operational requirements outlined in the Energy Resource Activities Act (ERAA), *Hydrogen Facility Regulation (HFR), as applicable Environmental Protection and Management Regulation (EPMR), Heritage Conservation Act (HCA),* and other regulations depending on project scope and activities proposed.

The Hydrogen Facility Regulation defines 2 classes of hydrogen facilities:

> A **Class 1 Hydrogen Facility** means a hydrogen facility where the aggregate weight of hydrogen at the facility (in storage and process equipment) is less than 4.5 tonnes. The facility cannot be co-located with a facility for manufacturing ammonia or methanol from petroleum, natural gas, water or another substance.
>
> A **Class 2 Hydrogen Facility** means a hydrogen facility where the aggregate weight of hydrogen at the facility (in storage and process equipment) is equal to or more than 4.5 tonnes. The maximum hydrogen manufacturing capacity of the facility must be less than 100,000 tonnes of hydrogen per year. The facility cannot be co-located with a facility for manufacturing ammonia or methanol from petroleum, natural gas, water or another substance.

The Processing Facility Regulation defines:

> **Class 3 Hydrogen Facilities** are facilities which do not meet the criteria of Class 1 or Class 2 hydrogen facilities. Class 3 Hydrogen Facilities are regulated under the BCER's Oil and Gas Processing Facility Regulation. Proponents and permit holder should reference the appropriate regulation and accompanying guidance for Class 3 Hydrogen facilities.

Proponents and permit holders should be aware that requirements vary by Class. The Hydrogen Facility Regulation should be reviewed to confirm what requirements are applicable to a Class 1 and Class 2 hydrogen facility.

The BCER requires that Class 1 and Class 2 hydrogen facilities are to be designed, sited, constructed, operated, suspended and decommissioned consistent with the approved application and in accordance with the codes and standards, and recognized and generally accepted good engineering practices.

If an exemption is requested from a regulatory requirement, and exemption request may be submitted prior to application submission, at the time of application, or following application determination, depending on the specifics of the circumstances, and the regulatory requirements from which and exemption is being requested. The Regulator may exempt an applicant for a hydrogen facility permit and a hydrogen facility permit holder from complying with one or more provisions of the Hydrogen Facility Regulation if the Regulator is satisfied that, in the circumstances, that compliance with the provision is not reasonably practicable or the exemption is in the public interest.

It is expected that the exemption powers of the Regulator will only be used sparingly and in a justifiable manner.

A proponent or permit holder must apply to the BCER to initiate the review process for a requested exemption. The application must include:

- Sufficiently detailed description of the situation requiring an exemption
- Appropriate justification for why the provision cannot be complied with, and
- Explanation of alternative approaches proposed to, at minimum, provide equivalent outcomes to the HFR.

The application can be made any time as long as the request is provided in a manner that will provide the Regulator sufficient time to review and render a decision. Activities related to the exemption request cannot proceed until the proponent or permit holder has received a written response from the Regulator.

The Regulator will review the request, and in the event an exemption is granted, the provision in the HFR may be replaced with one or more conditions.

If exemptions are approved prior to the application, this approval must be attached to the application.

Application Requirements

Application requirements to be submitted are not intended to duplicate requirements set out in applicable standards, codes, as well as federal, provincial, municipal laws and regulations to which the permit holder is expected to be aware of and comply to. It is the BCER's goal to ensure transparency and consistency of the BCER's expectations on adequacy of information for project proponents. The goal of the regulatory framework, scaled the way it is, hopes to minimize the use of exemptions where a project's scope or scale may not require specific aspects of application information.

Chapter 5

Completing Application Information

Application information supports the activity application and may be required depending on the application type and/or location of the energy resource and associated activity. This chapter provides detailed instructions on the Regulator's requirements for completing information details related to all of the activities included in the application in AMS.

Each section of this chapter provides an overview of application information section, definitions, and requirements to support the activity listed below. Application information detail requirements and corresponding section number in this chapter includes:

- 5.1 Administration
- 5.2 Land
- 5.3 Forestry
- 5.4 Archaeology
- 5.5 Stewardship
- 5.6 Maps and Plans
- 5.7 Attachments
- 5.8 Consultation and Notification

Application Information specific tabs are visible and available to populate once spatial data is uploaded as required for a new (or amendment) application. Data fields and application requirements are based on the activity being applied for. The validation functionality assists in ensuring all components of the application are completed. The requirements for the activity tabs are detailed in Chapter 4 of this manual. The Application Management System is designed to spatially derive geographic location and coordinates when the spatial data is uploaded during the application creation stage which triggers activity and land information. A globe symbol references data fields that are spatially derived.

Section 5.1 Application Management System Administration Tab

Information relating to the company representatives (and consultants) involved in application development is captured on the administrative tab. Anyone providing information on behalf of an applicant, and who wishes to access the application, must be registered and appropriate security roles assigned in the Regulator's corporate registry in order to be selected in AMS. For more information see Chapter 2 of this manual.

If the applicant company provides the representative with application security roles within the Regulator's corporate registry, the representative can view applications for which they have been included as a representative and contribute application data or information.

- Contact information is mandatory for the following representative types: an archaeology contact, if the application contains an archaeological component,
- An Engineering contact, if the application contains an engineering component, and

- A registered forest professional contact, if the application falls within a timber harvesting land base and new cut is required.

These contacts are identified as the individuals who provided information under their professional reliance within the application and will receive an e-mail notification and an attached report relevant to the information provided upon submission of an application to the Regulator

Section 5.2 Land Tab

The Application Management System includes an application-level land tab to capture land information for an entire application (including land for each activity in the application). Each activity also has an associated land tab, to capture land information specific to each activity at the activity-level; which then populates into the application-level land tab. The Regulator uses this information to support various reviews carried out on an application, and to support tenuring of Crown land area, where required.

Section 5.3 Forestry Information Tab

Submission of an application for an energy resource or associated activity may include additional application deliverables specific to forestry, if new cut is required.

The Forestry tab requires specific application information details. This section includes an overview of forestry information, guidance and details related to forestry specific application requirements and detailed instructions for completing the data fields within the forestry tab.

5.3.1 Forestry Information Defined

The Regulator issues cutting permits to facilitate the cutting of timber required as part of the construction of proposed energy resource or associated activities on Crown land. Cutting permits are issued under a Master Licence to Cut (MLTC), and stumpage is payable according to the applicable (interior or coast) appraisal manual.

5.3.2 Forestry Information Requirements

The Application Management System requires input of information to inform a decision to issue an authorization for a cutting permit for application where new cut is required on Crown land.

Authorizations for cutting permits can be applied for an issued with the permission or authorization to carry out the primary or associated activity by populating the Forestry Tab within the ERAA application.

The Forest Act application can be used in scenarios where a new cutting permit or changes to an existing cutting permit (with no modification to the existing permissioned area) is required. Some additional scenarios where only changes to the Forestry authorization may be needed include: transfers; expired cutting permit(s); expired Master Licence(s) to Cut and where new cut is required only over MoTI areas.

The Regulator does not issue cutting permits for activities on Timber Reserves on private land. In these areas, cutting permits must be issued by the Ministry of Forests through the landowner. When

preparing applications for submission to the Regulator in these areas, applicants should not include these areas in new cut area calculations.

Harvesting Within Woodlots & Other Area Based Tenures:

Upon engagement, if the Woodlot holder, or other Area Based Tenure Holders is not interested in the cutting and removing of timber on the site of the proposed energy resource activity, and with the tenure holder's consent, a CP associated with the proponents MLTC may be issued.

If area over a woodlot is required with the cutting permit in an application, the proponent must include this area as new cut in the application. To avoid delays in the review of the application, the proponent should include correspondence regarding the woodlot holders' consent for the application.

If an agreement cannot be reached between the two parties, the energy resource proponent should inform the BCER prior to, or upon application. Once the BCER is satisfied that an agreement is not achievable, they can submit a request to the appropriate DM requesting that the identified area be deleted from the Woodlot or other Area Based Forest Tenure.

Activity Area Overlapping Ministry of Transportation and Infrastructure Right-of-way

The Regulator issues cutting permits for any new Crown land disturbance within Ministry of Transportation and Infrastructure (MoTI) unconstructed road allowances and/or MoTI rights of way. Both unconstructed and constructed road allowances and/or MoTI rights of way must be clearly marked in the body of the construction plan and included as a separate area item in the construction plan area table. The Regulator will not issue land tenure over MoTI right of way. The area within the road allowance must be reflected in spatial data submitted for the application as per the Spatial Data Submission Standards manual.

Please Note: The submission of an MoTI polygon in AMS is mandatory when an applicant requires new cut within the MoTI right of way. If the application does not require new cut within an MoTI right of way, it is not mandatory to include the MoTI polygon.

Please Note: If the proposed activity enters or affects a MoTI right of way, consent to carry out the approved activities must be obtained from MoTI before the project begins.

Amendments

When submitting an amendment application associated with an existing approval, submit amended forestry details where applicable.

Reduction to permitted area of cut does not require an amendment application as this will be addressed through the post construction process.

5.3.3 Forestry: Additional Considerations

Stumpage

The Ministry of Forests posts appraisal manuals for the interior and coast outlining the process for determining stumpage payable on cutting permits issued for energy resource development.

Area based stumpage rates are applied to new Crown land areas disturbed for energy resource activities and related activities as defined in the *Energy Resources Activities Act* or authorizations for investigative purposes issued under the *Land Act*.

The Interior Appraisal Manual Table 6-8 shows the districts where area-based stumpage rates apply along with the reserve stumpage rate for cutting authorities with less than 10 hectares of area. For these permits, as-cleared information reported by the permit holder on the post-construction plan or geophysical final plan submission is forwarded to the Ministry of Forests.

Cutting authorities with 10 hectares or more area must use the stumpage rate prescribed in Table 6-3 in the Interior Appraisal Manual.

Refer to the Ministry's Timber Pricing page for more information and guidance.

Stumpage Waste Assessment

Operators cutting Crown timber are required, regardless of utilization, to report and pay the province for the timber. According to the specifications detailed in the Master Licence to Cut, exempted merchantable fibre, outside the Forest Districts described in Section 6.6 of the Interior Forest Appraisal Manual, must have a waste survey completed and ensure stumpage is billed accordingly.

Forest Health

Fibre waste left onsite must be managed to minimize fire and pest risks and must be disposed of at the end of the clearing phase or at the end of the summer fire season, whichever comes first.

Post Construction Information

As a condition of the MLTC, permit holders submit as-cleared information within 60 days of clearing. As-cleared information is submitted to the Regulator as part of the post-construction plan submission requirement. The Regulator forwards as-cleared information to the Ministry of Forests for stumpage billing.

Fibre Utilization

Permit holders are encouraged to utilize merchantable timber harvested during the construction phase of the energy resource activity lifecycle. For example, timber may be utilized on-site (i.e. corduroy, rails, etc), as coarse woody debris in nearby restoration operations, or be made available to potentially interested third parties. Prior to wasting harvested timber, permit holders should notify potentially interested parties of the size, species, volume and location of available timber. Potentially interested parties may include, but not limited to, mill operators, forest licensees and local First Nations.

Section 5.4 Archaeology

Submission into the Regulator's Application Management System (AMS) for an energy resource or associated activity must include application deliverables specific to archaeology as discussed in this section. The required archaeological deliverables vary based on the planned activity. The information entered into the archaeology tab of AMS is to be entered by or obtained from a certified or permitted archaeologist.

Due to the unique nature of hydrogen projects, it is likely that some projects may meet the requirement of an Administrative Change, as described below. It is recommended that applicants confirm with the Regulator's Heritage Conservation Program staff (archaeologydl@bc-er.ca) the application meets the requirements of an administrative change prior to application submission. Applications that meet the requirement of an Administrative Change do not require archaeological information deliverables.

5.4.1 Professional Reliance and Results Based Archaeological Review

The professional reliance and results-based review process at the Regulator was established in 2004 and is designed to support the following objectives:

- Increase the efficiency and effectiveness of the review process.
- Ensure compliance with applicable legislations (*Energy Resource Activities Act* (ERAA) and *Heritage Conservation Act* (HCA).
- Support proponents in the fulfilment of their permit obligations.
- Manage archaeological resources by balancing and considering all land values.
- Guide, evaluate and provide recommendations to improve the effectiveness of proponent's management systems as they apply to archaeological resources through the Archaeology Audit Programs (AAP).

The Regulator's Heritage Conservation Program has three main streams of business:

- Application screening and review of archaeological components.
- *Heritage Conservation Act* section 12.2 and 12.4 permit adjudication and administration.
- Archaeology Audit Program.

Important Preparation and Submission Factors

1. If the archaeology tab is displayed in an application, a certified archaeologist or permitted archaeologist must be listed on the administrative tab. A professional reliance email notification will be sent to the archaeologist listed on the administrative tab upon submission of the application.
2. A certified archaeologist or permitted archaeologist must review each application area to evaluate the potential for impacts to archaeological values and identify what, if any, additional work may be required. The Regulator expects applicants to engage a reputable archaeological consulting company employing professionals eligible to work in the application area under Section 12.2 of the *Heritage Conservation Act* and specific to the application area.

3. The certified archaeologist or permitted archaeologist completes the Archaeological Information Form (AIF) designed for AMS and the appropriate data fields within the archaeology tab. An AIF designed for AMS can be found on the Regulator's website and should be used for all applications when new disturbances are anticipated within an application area.

   Ideally, the information on the AIF will be entered into AMS by the applicant's archaeologist and the form submitted to the applicant for confirmation of project information and upload. In instances where the applicant has not granted permissions for their archaeologist to access AMS, either the applicant or their agent will complete the archaeology tab. The archaeology tab must be completed and consistent with the information provided on the AIF.

   Either the energy resource applicant, their agent or their archaeologist must upload the completed and signed AIF into AMS. The uploaded document should be placed under "Other Document".

4. The submitted information (both within AMS and on the AIF) are reviewed by the Regulator Heritage Conservation Program Staff for accuracy and appropriateness.

5. Archaeological reports resulting from a field assessment (Archaeological Impact Assessment (AIA) or Preliminary Field Reconnaissance (PFR)) may be submitted at numerous points during the application (or pre-application) process, depending on the timing of the field assessment. However, all reports must be uploaded, consistent with the schedule below. Reports must be uploaded under the Archaeology Report dropdown option. For post-permit issuance uploads of archaeological reports, see point 8.

   - Reports with no archaeological management recommendations

     If no archaeological management recommendations are provided, the archaeological report must be uploaded as soon as possible and prior to construction commencement. Inclusion of a completed archaeological report greatly facilitates a number of reviews during the application process, including the Regulator's archaeological review and the First Nations consultation processes.

   - Reports with archaeological management recommendations:

     If the report makes archaeological management recommendations, construction work must not proceed until the report is approved by the Regulator. The following steps must be followed when archaeological management recommendations are made:

     i. The archaeological consultant responsible for the field assessment must discuss mitigation strategies with the energy resource applicant and present the results of the assessment and proposed mitigation strategies within the context of an AIA report.

ii. The report is submitted to the Regulator for approval of all archaeological management recommendations. Submissions must be made via Arch.Submissions@bc-er.ca for review and approval.
iii. Once the report has been reviewed, the Regulator provides formal notification to the applicant and the archaeologist regarding approval or decline of the report and recommendations within.
iv. Once an approval letter is received from the Regulator, the applicant must upload the report and approval letter into AMS.

The mitigation review and approval procedure discussed above are currently in place and have been established over the past two decades; they have proved to be the most efficient manner to approach archaeological site recoveries and facilitate communication among Regulator staff, energy resource proponents and archaeologists. The only change to the process associated with the implementation of AMS is the required upload of the approval letter.

Since the implementation of AMS in July 2016, the Regulator has observed that the most accurate application submissions for archaeological information are those where the archaeologist has access to and enters the information into the archaeology tab in AMS. Granting the archaeologist application security role permissions greatly reduces the need to move applications into revision.

6. HCA Section 12.4 permits are reserved for unique scenarios where a project cannot avoid disturbing an archaeological site. The applicant or energy resource activity permit holder must apply to the Regulator for a permit issued under Section 12.4 of the *Heritage Conservation Act* specific to the activity that will be carried out. These permits are applied for independent of AMS and an upload of the permit application into the system is not required at the time of development application submission.
7. To upload an archaeological report post permit issuance, open Kermit External and select the 'Post Permit Actions' tab. Under the heading 'Permits', click 'Find Permits' and enter the AD#. Press search. Click on the AD# and click the 'Attachments' tab. Under the heading 'Post Approval Attachments' click on 'upload'. An uploaded prompt will appear, click +Add files and select the file for upload, select document type 'Archaeological Assessment Report'. Click 'start upload'. Press "Save".
8. All documents relating to the archaeological component of applications must be retained by energy resource applicants and are subject to review by Regulator staff during formal or informal audit processes. These records include application information, assessment information and communication documents between the energy resource proponent and the archaeologist.

Section 5.4.2 Guiding Legislation and Regulations

Applicants are responsible and accountable for ensuring that planning and development activities comply with the *Heritage Conservation Act* (HCA), *Energy Resource Activities Act* (ERAA) and all supporting Regulator policies and conditions of permit. The Regulator's archaeological application requirements are based on HCA and ERAA and the Regulator endeavors to ensure applicants

remain within these legislative and policy requirements. Special conditions may be added to development permits for proponents to facilitate the protection of archaeological resources.

All archaeological sites are protected under the HCA. This protection is not affected by an error or omission in the Provincial Heritage Register or by failure to register property in the Provincial Heritage Register. The *Heritage Conservation Act* protects all archaeological sites whether on private or public lands. Under Section 12.1 of the HCA:

- Archaeological sites are protected against any damage. This protection applies to all sites, regardless of whether they are located on Crown or private lands and regardless of the level of disturbance.

Under Section 36 of the *Heritage Conservation Act*:

- Anyone found to be in contravention of Section 12.1 is liable for a fine or imprisonment.

5.4.3 Supporting Information

Conducting an Archaeological Impact Assessment (AIA)

Archaeological field work involving survey and sampling (ground truthing and testing) is typically referred to as an Archaeological Impact Assessment (AIA). An AIA is conducted prior to any on the ground development activities. An AIA where no testing has been conducted may be referred to as a preliminary field reconnaissance or PFR. The results of an AIA or FPR are detailed in a written report.

An AIA (field testing and verification) may be completed at any time before or during the application and review period or after a permit has been issued. However, all archaeological field work must be completed prior to any ground altering activities unless detailed in special conditions or directions from the Regulator.

Compliance as it Related to a Professional Reliance and Results Based Regulatory Review

Compliance with the requirements of the HCA, Regulator policies, guidelines or associated legislation and conditions of permit must be adhered to. If a company is found by the Regulator to be in non-compliance with any requirements, the company may be excluded from the expedited archaeological review stream until all issues are resolved. During this period the proponent must ensure all archaeological requirements are met and reports are submitted to the Regulator before the archaeological component of the application review will be completed. In other words, development permits will not be moved to decision until all report is submitted and approved by Regulator Heritage Conservation Program staff, which could result in significant delays.

These sanctions do not exclude the proponent from further penalties, which may be imposed by the Regulator or the Province of British Columbia under Section 36 of the HCA.

5.4.3 List of Supporting Materials

Types of Reports

Archaeological Impact Assessment (AIA):

An AIA refers to archaeological field work conducted. Subsurface shovel testing of areas deemed to have archaeological potential may be conducted to identify archaeological sites within the proposed project area. An AIA where no testing has been conducted may be referred to as a preliminary field reconnaissance or PFR.

Archaeological Overview Assessment (AOA):

An AOA is largely a desktop review of available literature including reports, ethnographic studies, site inventory records and physiographic mapping. The resultant report describes the subject area's potential for containing archaeological resources and may provide recommendations if appropriate.

Archaeological Overview Assessment Report (AOA Report):

The results of an AOA are detailed in an AOA report.

Preliminary Field Reconnaissance (PFR):

PFR refers to a field inspection that establishes if a subject area contains archaeological potential. Most often, if a PFR is conducted and the application area is found to contain archaeological potential, the attending archaeological company will perform a full AIA.

An archaeologist may also downgrade an AIA to a PFR if the intended AIA area proves to have no archaeological potential. The results of the field inspection would be detailed in an AIA or PFR report.

Preliminary Field Reconnaissance Report (PFR report):

The results of PFR are detailed in a PFR report.

Other reference terms

Administrative Change:

For the purposes of the archaeological review, an Administrative Change refers to an application that has no ground disturbance or clearing activities associated. Examples of administrative changes are a transfer of road tenure or document corrections. Any revision or amendment to components that involve an increase in size, change in shape or position, is not considered an administrative change. It is recommended that the applicant contact the Regulator's Heritage Conservation Program staff to confirm the application meets the requirements of an administrative change prior to application submission.

Archaeological Potential:

Archaeological potential refers to the possibility that archaeological resources may be present within a defined area. Potential is determined through examination of sets of variable criteria that change according to geographic location and geophysical characteristics.

Archaeology Audit Program (AAP):

The Regulator conducts audits of energy resource proponent's archaeological management systems. The audit supports a professional reliance model and results-based regulatory review of the archaeological portions of applications.

Archaeology Branch:

The Archaeology Branch of MOF is responsible for maintaining and distributing archaeological information regarding the management of archaeological resources in British Columbia.

Borden Number:

The Borden Numbering system is a naming convention created by Charles Borden for archaeological sites found in Canada. A unique set of letters and digits are assigned to every new archaeological site as they are recorded in the provincial data base.

Certified Archaeologist:

An experienced archaeologist who is approved and listed under a Section 12.2 permit of the HCA issued by the Regulator for the purpose of conducting archaeological impact assessments.

***Heritage Conservation Act* (HCA):**

The HCA is the legislation that protects heritage in British Columbia. Under Section 12.1 of the HCA, archaeological sites are protected against any damage. This protection applies to all archaeological sites, regardless of whether they are located on Crown or private lands. Under Section 36, Offence and penalty, anyone found to be in contravention of Section 12.1 is liable for a fine and/or imprisonment. This protection is not affected by an error or omission in the Provincial Heritage Register or by failure to register property in the Provincial Heritage Register.

Permitted Archaeologist:

An experienced archaeologist who holds a permit under Section 12.2 of the HCA for the purpose of conducting archaeological impact assessments.

Professional Reliance and Results Based

The professional reliance review process for archaeology at the Regulator is based on the requirement that energy resource proponents contract certified or permitted archaeologists to provide recommendations that are then passed on to the Regulator. Although the onus for protecting archaeological resources is placed on the applicants, the Regulator provides support for both individual application processing and entire archaeological resource management systems.

The Regulator's expedited review allows applications to be processed prior to the completion of archaeological assessments or submission of reports for those assessments. Exceptions and expectations for this advantage may be modified based on situation or performance.

Associated with a professional reliance and results-based approach is the Regulator's Archaeology Audit Program (AAP) (see definition for AAP).

Remote Access to Archaeological Data (RAAD):

RAAD is an online GIS application that allows authorized users to view spatial data about B.C.'s archaeological sites. RAAD is maintained by the Archaeology Branch of MOF.

Section 12.2 Permits:

A permit may be issued under Section 12.2 of the HCA to allow for the completion of archaeological impact assessments. These permits allow archaeologists to complete field assessments within the confines of special terms and conditions outlined in the permit.

Effective June 1, 2024, under ERAA, a specified enactment with provision for section 12.2 of the HCA authorizes the Regulator to issue section 12.2 inspection permits to energy resource applicants. This authority is for the entire province of B.C. for energy resource developments and the Regulator's authority is in place of the Archaeology Branch's authority. The Regulator's powers do not include projects that are subject to Canada Energy Regulator (CER) review and approval as CER project are specifically excluded from this provision.

Section 12.4 Permits:

A permit may be issued under Section 12.4 of the HCA if impact to an archaeological site cannot be avoided. These permits allow applicants to alter a known archaeological site within the confines of special terms and conditions outlined in the permit.

Under ERAA a specified enactment with provision for section 12.4 of the HCA, authorizes the Regulator to issue alteration permits to energy resource proponents when an archaeological site cannot be avoided. This authority is for the entire province of B.C. for energy resource developments and the Regulator's authority is in place of the Archaeology Branch's authority. The Regulator's powers do not include projects that are subject to Canada Energy Regulator (CER) review and approval as CER projects are specifically excluded from this provision.

All archaeological forms and documents are found on the Regulator's manuals, guidelines and forms page at Energy Professionals | BC Energy Regulator (BCER) (bc-er.ca).

Section 5.5 Environmental Stewardship

Submission of an application for an energy resource or associated activity must include additional application deliverables specific to environmental stewardship. The required stewardship deliverables vary based on the planned activity and location.

Environmental Effects Assessment Form

The Regulator's environmental effects assessment form can be used to demonstrate that the proponent has evaluated the potential environmental effects of the proposed project as required be Section 11 (2) of the regulation, and to inform the development of mitigative measures or management plans.

Proponents should review the environmental setting for the project, along with project details and indicate whether or not the environmental values presented in the form provided are subject to the risk of effects from the project. Values to be considered include, but are not limited to:

- Soils
- Surface Water
- Ground Water
- Air Quality
- Wildlife and Wildlife Habitat
- Vegetation

When features are at risk of being impacted by the project, proponents should provide additional detail with respect to the value, the potential risk and what mitigative measures or best management practices will be taken to minimize and/or avoid the impacted value. The level of detail should commensurate with the magnitude of the risk and the level of effort required to ensure proper mitigation. For minor risks, with basic mitigations, the Environmental Effects Assessment form may be suitable for providing the required detail. For situations with greater environmental risk, a specific assessment may be required under a separate cover (i.e. wetland assessment report, riparian area assessment, habitat assessment, etc).

Applicants may choose to follow Table Appendix B1 of the Environmental Protection and Management Guideline when developing mitigation plans, where required. Additional and overarching provincial policy on Environmental Mitigation Plans can be found here.

Environmental effect assessments and mitigation plans should be signed off by a qualified environmental professional. The Environmental Effects Form found in Appendix A, should be uploaded as part of the application as an 'other' attachment.

If environmental assessments and mitigation plans have been prepared in order to fulfill municipal permitting requirements, these may be referred to within the environmental effects assessment form and uploaded as an attachment within the application as an 'other' document.

The Stewardship Tab with the AMS Application

Companies must adhere to the Environmental Protection and Management Regulation (EPMR) of the Energy Resource Activities Act (ERAA) in order to conducts energy resource activities. Section 25(1) of ERAA states:

- The Regulator may issue a permit if, after considering government's environmental objectives, the applicant meets the requirements of those objectives.

The Environmental Protection and Management Regulation (EPMR) establishes the regulatory requirements for stewardship of environmental values and features while carrying out energy resource activities and applies to activities located on Crown land. The stewardship tab requires specific application information details.

When an activity is proposed on Crown land or when a spatially derived question (indicated by the symbol) is 'Yes' the applicant must complete the Stewardship tab in accordance with Chapter 5.6 of the Oil and Gas Activities Application Manual.

When the activity is proposed on private land and all spatially derived questions result in 'No' the applicant may answer the three remaining questions as follows provided the Environmental Effects Assessment and any associated mitigation plans have been provided.

Question	Answer
All activities included in this application will be planned and carried out in accordance with the planning and operational measures outlined in the Environmental Protection and Management Guideline:	Yes
Is a mitigation plan under Appendix B of the Environmental Protection and Management Guidelines or any other BCER initiative required?	No
Is an exemption required from Part 3 of the Environmental Protection and Management Regulation	No

5.6 Maps and Plans Information Tab

Maps and plans support activity applications, and the requirements differ depending on the energy resource and/or associated activity selected as well as the technical and engineering information provided.

Applications should have one map for the entire application, not individual sets of maps per activity within the application.

Applications must include mapping illustrating in detail the location and extent of planned activities, as required. Required mapping information includes the following.

- Construction plans – this is a mandatory requirement for most applications
- 1:20,000 and 1:250,000 plans
- Diversion plan for short term water use applications

- CIAS Sketch plan - Mandatory for all stand-alone CIAS applications and technical only amendments that include CIAS. Where CIAS is included in new multi-activity applications or land amendments for ERAA, the CIAS activity may be shown on the construction plan and the CIAS Sketch plan is optional
- Individual Ownership Plan (IOP) for activity on private land.

All construction plans and maps should include the following information, as applicable for the application:

1. Title Block information:
    - Applicant company name.
    - Project name, if applicable.
    - BCGS mapsheet.
    - Legal description of the project.
    - Date plan prepared (yyyy/mm/dd).
    - Scale.
    - Version number (i.e.: revision #1, amendment #1).
    - Survey company name, address and phone number.
    - Sheet numbers (e.g., sheet 1 of 2).
    - Survey company job number.
    - Survey company drawing number.
    - Table of crossings.
    - Crossing number.
    - Drawing number.
    - Approved by and checked by name.
    - Project manager.
    - Notes.
    - Revision information (number, completed by and date of revision).

2. Area block to summarize the following in the legend:
    - Total area of Crown
    - Total area of private land
    - Total area within MoTI rights-of-way.
        - Total area of new cut within MoTI rights of way
    - Total area of new cut within any woodlot required to be included with the cutting authorization
    - Total area of new Crown land disturbance (excluding the areas of MoTI and woodlot, if broken out separately in the tables)
    - Area of existing Crown land disturbed.

3. Scale bare placed above the title block where it will not interfere with the drafted areas.
4. Body of the plan should include, as applicable:

- Surveyed Crown land (District Lot Numbers; NTS; DLS legal descriptions, etc., including theoretically surveyed Crown land posted but not titled), as applicable.
- Unsurveyed Crown land, if applicable.
- Private land should indicate the owner's name, parcel identifier number (PID no.), title number and the areas of disturbance.
- North arrow.
- Construction corridors and activities within the corridor, the energy resource activity (e.g. pipeline or facility), deck sites, workspaces, brush pushouts, or any other associated activities required must be indicated on the construction plan and listed in the plan area tables, etc. The construction corridor should be indicated on the construction plan, using dashed lines and mark “Construction Corridor”. The area table on the construction plan should reference the total area (in hectares_ encompassed by the construction corridor; this area will be reflected in the spatial data within the total application areas. See Figure 4 for an example.
- UTM coordinates for the activity; including from and to locations or beginning and end UTM coordinates for all linear proposed projects.
- Activity specific information (such as disturbance measurements in meters or kilometers), if applicable.

5.6.1 Map Detail

This section provides detailed instructions of the Regulator’s requirements for maps and plans. BCGS Map sheet(s) refer to all BC Geographic Series map sheets (BCGS) and must include all areas affected by the proposed activity. Hand sketches are not acceptable as map attachments. In addition to the mapping information listed in section 5.7, maps and plans requirements include:

1. 1:20,000 Maps:
    - Project area along with brief description of all proposed areas e.g. “Proposed 10x30m Workspace (new cut)”.
    - Permitted projects in the area (existing wellsites, pipelines, sumps, or associated activities).
    - All roads including temporary access roads.
    - Seismic/Trails.
    - Cut blocks and woodlots.
    - Contours.
    - Trappers, Guides and Range Tenures.
    - Water features (including labels).

2. 1:250,000 Access map:
    - Access to project
    - Access description text box marking out KM to project showing all route changes.
3. Diversion map (at appropriate scale) mandatory for all short-term water use water applications to illustrate in detail the location and extent of planned activities. The map should include the following:

- Include access to each point of diversion (POD).
- Show existing tenures impacted (eg. Rights Holders as per WSA, tenured water source dugouts).
- Water features.

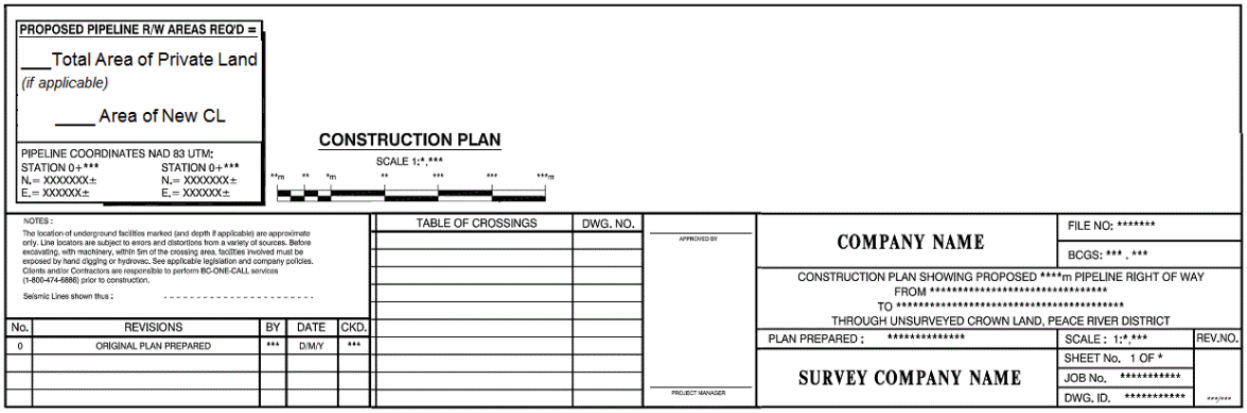
4. CIAS Sketch Plan (at appropriate scale) to illustrate in detail the location and extent of the changes in and about a stream activity.

5.6.2 Construction Plans

Construction plans inform the Regulator about the company's plans for constructing the proposed works, including details about the location and size, associated activity sites and other details of the project's development. Applicants must include construction plans with applications. See Figure 8 for an example of a table of information.

This section provides instructions on the requirements for all construction plans plus additional information required for specific authorizations including facilities, roads and water.

Figure 8: Sample of Construction Plan Title Block Information



5.6.3 Construction Plan Basic Requirements

In addition to the requirements listed in section 5.7, construction plans must include:

1. Label on plan indicating:
   - Dimensions and area of Crown land.
   - Dimensions and area of linear segments, if applicable.
   - Location of Agricultural Land Reserve (ALR), if applicable.
   - NTS and/or DLS coordinates (units, block, and group).
   - Chainages.
   - Deflections.
   - Crossing numbers, if any, to correspond to the table of crossings.
   - Vegetation changes (brush/tree types).
   - Dimensions and area of associated activity sites (decking sites, temporary workspaces, etc.), if applicable.

- Cut blocks, range tenures, guide outfitter areas, Indian reserves, coal tenures and all other areas of special interest.

2. Plan diagram to indicate:
    - Dimensions and area of Crown land (including any associated activity sites).
    - Location of Agricultural Land Reserve (ALR), if applicable.
    - Woodlot area clearly marked.
    - Cut blocks, range tenures, guide outfitter areas, Indian Reserves, coal tenures and all other areas of special interest should be indicated and labelled on plan.
    - NTS coordinates (units, block, group); chainages; deflections; crossing numbers, if any, to correspond to the table of crossings; vegetation changes (brush/tree types) and a North arrow.
3. Plan diagram to indicate and classify waterbodies within 100 metres of a proposed energy resource activity or Crown land application (i.e. campsite, storage site, borrow pit, etc.).
4. Stream crossings are required for all stream and waterbody crossings required to carry out energy resource activity and identified in the application (Section 11 of the Water Sustainability Act). The crossing number must match the crossing identified in the construction plan. UTM Coordinates (NAD 83 CSRS) must be identified and the name of the stream or waterbody. The crossing number, UTM coordinates, and the name of the stream or waterbody must also be identified in the Crossing table.

Additional Construction Plan Requirements: Facilities

Construction plans for facility applications must include all roads, rights-of-way, public utilities, easements, road allowances and places of public concourse located within 60 metres of storage tanks and production equipment, and/or within 80 metres of flare stacks and incinerators. The plan must also show drainages and the proximity to the lease, adjacent surface improvements and surveyed polygons of facilities.

Additional Construction Plan Requirements: Amendments

Construction plans submitted with amendment applications should show all the changes for the proposed activity.

- Revised construction plans should include a detailed table of amended areas.
- Within body of the revised plan, highlight the amended areas and include a text box with a description of areas amended.

5.7 Application Attachment Information Tab

Attachments uploaded within the Application Management System support activity applications and are required depending on the energy resource and associated activity selected and the technical and engineering information provided. This section provides detailed instructions of requirements for uploading attachments.

Each activity and application information section in this manual provides specific instructions for attachment requirements. The Attachment tab in AMS allows applicants to view all attachments

uploaded within the activity tabs. It is organized by activity and applicants are able to see what was uploaded for each section and what is still required. Applicants may view attachments and/or upload new attachments using this tab while the application is still in the creation stage.

Some attachments are conditional, meaning they must be uploaded on a specific activity or application page and will display under the Attachments tab, categorized by the activity or application tabs.

Applicants for a facility permit for a class 1 and class 2 hydrogen facility must submit to the regulator an application that includes all of the following information and records respecting the proposed facility:

I. A detailed project description,
Note: The project description should provide a concise summary of the project from construction to operation, providing enough detail to assist the Regulator in understanding how and in what quantity hydrogen will be manufactured. The project description will also be used by the Regulator for communication to the public. Any future facility expansion that the applicant would like approved under the permit must be captured in the project description and be consistent with any environmental assessment approval conditions. Applicants should provide drawings or pictorial representations to assist the Regulator in understanding the proposed facility. Please use the Facility Overview window and the Project Description field to upload.

II. Construction Schedule, and
Note: The preliminary schedule should be sufficiently detailed to inform the Regulator of the timing of major milestones in the project, including submission dates. This will allow the Regulator to coordinate its activities (for example, submission reviews) based on the applicant's proposed schedule and minimize potential delays to the project.

III. A Statement from Engineer of Record that:
    a. Declares which of the two adopted design standards (CAN/BNQ 1784-000, or NFPA 2) was followed;
    b. Specifies any proposed deviations from the design standards for which an exemption is sought;
    Note: see section 47 of the Hydrogen Regulation and the related section this document for additional requirements and information related to exemptions.
    c. declares the preliminary design documents, and hazard identification studies, and risk assessment studies were completed in accordance with professional standards established under section 57(1) of the Professional Governance Act by the Association of Professional Engineers and Geoscientists of the Province of British Columbia
    Note: this requirement is to obtain assurance that engineering work products related to the facility are completed in accordance with the professional practice requirements of British Columbia.
    d. Specifies the studies completed, and any recommendations made as a result of the studies and whether the preliminary design incorporates the recommendations; and

Note: studies anticipated at the application stage include, as relevant: Hazard Identification Studies (HAZID), siting studies, preliminary Quantitative Risk Assessment (QRA)

e. Confirms, subject to any exemptions requiring approval, whether the proposed project was designed in accordance with adopted standards, codes and applicable regulations.

Permit applicants should upload their construction schedule and Statement from Engineer of Record under the attachments tab as an "other" document.

In addition to the above requirements for a Class 1 and Class 2 hydrogen facility the BCER requires that an applicant for a facility permit for a Class 2 hydrogen facility must submit an application that includes all of the following information and records respecting the proposed facility:

- preliminary design documents,
  note: this includes, but is not necessarily limited to, design basis documents, plot plans & general arrangements, process flow diagrams, utility flow diagrams, heat & material balances, and metering schematics
- a report on studies completed
  note: proponents should submit a document with a summary of studies completed and append the final study reports to the summary document as a series of appendices
- A report respecting assessment of the potential effects of the facility on the environment and a report respecting measures required to minimize the potential effects of the facility on the environment.

In some cases, attachments must follow specific formats. For example, consultation and notification line lists must use the line list spreadsheet template. Unless otherwise indicated, the Regulator recommends either Word, Excel, jpg or pdf format. File sizes are limited to 50mb.

Chapter 6

Requirements for Engagement

Part 2 of the Hydrogen Facility Regulation outlines the requirements that proponents must undertake with regard to notification to affected persons.

An affected person means a person, including the Government of Canada, and an agent of the Government of Canada, local authority that would reasonably be expected to be affect by the impact.

Class 1 and Class 2 applicants must be aware of the requirements under Section 22 (2) of the *Energy Resource Activities Act (ERAA) and provide proof of notice or a letter of non-objection to the project proceeding on their land*.

Class 1 Notification Requirements

For Class 1 hydrogen facility projects, no notifications are required to be submitted as part of a permit application to the BCER.

Class 2 Notification Requirements.

For applicants of a Class 2 hydrogen facility permit the following requirements must be met before submitting an application to the BCER.

- Assess the likely nature, geographic area and timing of the impacts that would reasonably be expected to occur outside the proposed operating area of the permit at each phase of the proposed hydrogen facility.
- Provide notice of the likely nature, geographic area and timing of the impact referred to above to:
    - The local authority (municipality and/or regional district) in which the proposed hydrogen facility is to be located, and
    - Affected persons.

The notice to affected persons must include the following information:

- A description of the proposed hydrogen facility project
- A clear summary of the likely nature, geographic area and timing of the impacts referred to in Section 6(1)(a) of the Hydrogen Facility Regulation.
- Business name and business contact information of the person providing the notice;
- The street address or legal description of the land on which the proposed hydrogen facility is to be located;
- A statement that the recipient may, within 30 days of the notice date, submit a written response to the person providing the notice stating whether the recipient has any concerns with the proposed hydrogen facility, and, if so, the reasons for those concerns.
- A statement that the recipient may make a submission to the regulator under section 22(5) of the *Energy Resource Activities Act*.

If a project proponent, who has provided notices to affected persons but has not submitted a permit application, revises their class 2 hydrogen facility project in a manner that results in a material change to the likely nature, geographic area or timing of the impacts summarized in the notice, they must provide notice of the impacts and the material change to the local authority in which the proposed hydrogen facility is to be located and to affected persons.

If applying for an amendment, the same requirements for notification exist and must be undertaken prior to submission of a permit amendment application. A summary of the proposed amendment(s) will need to be provided as well as the summary of the nature of the geographic area and timing of the impacts. They must also provide the applicant's business name and contact information and street address or legal description of the land on which the facility will be located. The notice must also state that the affected party has 30 days to provide a written response and that an opportunity exists to make a submission to the Regulator under section 31(2) of the ERAA. Applicants must provide proof of notice or a letter of non-objection, specific to the amendment, as part of their amendment application. This can be uploaded as an attachment to their application.

Method of providing notice

Notices must be provided to a local authority and/or an affected person by written notice in accordance with the method of service set out in section 79(1) of ERAA or section 2 of the Service Regulation.

Alternately, a project proponent may choose one or more of the following methods, if the method(s) would be reasonably expected to bring the notice to the attention of the affected person.

1) Posting a clearly visible sign at the operating area of the proposed hydrogen facility;
2) Holding a public meeting;
3) Publishing the notice on a publicly available website;
4) Publishing the notice in a newspaper; or
5) Providing the notice in a manner approved by the regulator.

When submitting an application for a ERAA permit for a class 2 hydrogen facility, the proponent must produce a report that provides:

1) identification of, or a description of the persons to which a notice was provided under 6(1)(b) or (3), 7(1)(b), or 8(1)(b) of the hydrogen facility regulation.
2) The summary included in the notice,
3) The method by which the notice was provided and the rationale for the use of this method.
4) Any comments received from the persons and bodies to which notice was provided,
5) A response to any comments referred to in paragraph (d), including details respecting how the comments were accommodated or considered.

After receiving the report, the Regulator has the ability to ask the permit applicant to carry out further notifications to additional persons, as identified by the regulator, by a method set out in section 9(2)(b)(i) to (iv) of the *Hydrogen Facility Regulation*.

Written Submissions to the Regulator

In addition to the notification processes for hydrogen manufacturing facilities, Section 22 (5) of ERAA conveys the right for anyone with an interest or concern about a proposed activity and/or its proposed location to make a written submission. While not required, a Written Submission Form is recommended and available on the Regulator's website or directly from the Regulator.

Written submissions are made directly to the Regulator, can happen at any time in the application process, and may be made by any person. This differs from recipient requirements and written responses which are specific to consultation and notification and have clear guidelines and timelines. The Regulator forwards written submissions to applicants, along with a Case File Number. Where received prior to application submission, the Case File Number must only be referenced in the report when concerns remain unresolved at the time of the application submission. The applicant is not required to reply, however may be encouraged to respond in order to assist in resolution of issues. Completed Written Submission Forms are sent by email to: WrittenSubmissions@bc-er.ca, or submitted directly to the Regulator's Fort St. John or Dawson Creek offices.

Unresolved Concerns

To ensure decisions are made with full knowledge it is important that any concerns that remain unresolved at the time of application submission, including those outside the Regulator's regulatory jurisdiction (e.g. access and compensation), are noted as unresolved concerns in the report. It is also important to note if concerns were raised and responded to verbally; these should also be included in the report.

Case File Numbers

Case file numbers must be referenced in the report in applications when written submissions have been received and the concerns with respect to the proposed activities remain unresolved.

If a written submission is received by the Regulator, the applicant will be provided with the assigned case file number. If the application has been submitted the case file number can be used for reference but will need to be used in an updated report should there be a revision.

If there are outstanding concerns, applicants should contact the Community Relations department well in advance of submitting an application to obtain case file numbers, when required. Case file numbers will be provided to the applicant upon receipt of the following information:

- A copy of the notification and the map sent to the recipient;
- The written responses and replies exchanged during the notification timeline; and
- The name, contact information, and recipient type for those with unresolved concerns.

If there is no documentation identifying unresolved concerns and mitigating actions, a brief summary noting verbal exchanges is required.

One case file number will be assigned per land-owner or rights holder, per application. It is important to note that case file numbers are not interchangeable or reusable. If a case file number has been provided to the applicant and is not used (e.g. if issues are resolved prior to submitting the application), please advise Community Relations and the case file number will be cancelled.

Case file numbers should not be referenced in the report when concerns regarding the proposed activities have been resolved. If the concerns have been resolved, applicants should contact the Community Relations Department to cancel the case file number.

Please Note:

Applicants that are applying for multiple activities should review the guidance provided in the Oil and Gas Application Manual for requirements for consultation and notification. Depending on the activities being applied for, there may be additional steps/deliverables may be required to support a permit application.

Chapter 7

Reviews and Appeals

In accordance with ERAA, a formal review and appeals process exists to review and revisit decisions made by the Regulator. Only an eligible person may submit a formal request for Regulator review officers (in the case of a review) or the Energy Resources Appeal Tribunal (in the case of an appeal) to revisit certain determinations.

Because the appeal process is administered by the Energy Resource Appeal Tribunal and considered an independent body, the Regulator's guidance does not comment on the procedures or processes of the Energy Resource Appeal Tribunal.

This chapter provides details of the review request procedures and requirements.

Review Request

Not all determinations made by the Regulator are eligible for review. The Regulator's Review and Appeal Coordinator and the designated review official determines the eligibility of a review request based upon three criteria: the determination, the requestor, and the date in which the request was received by the Regulator. As defined within Section 69 of ERAA, a determination is only reviewable if:

- Decision is made by the Regulator under Section 25 or 26.
- Declaration is made by the Regulator on its own initiative under Section 27.
- Order is made by the Regulator under Section 40(f).
- Order is issued by an official or the Regulator under Division 2 of Part 5.
- Finding is made by the Regulator under Section 62.
- Administrative penalty is imposed by the Regulator under Section 63.
- Prescribed decision is made under ERAA:
    a) Section 9 of the OGAA General Regulation prescribed the following decision as determinations for the purpose of Section 69.
- Transfer of a permit or authorization under Section 29.
- Permit amendment under Section 31(7).

A determination is not reviewable if the decision is already subject to an appeal under Section 72 of ERAA. For more information regarding appeals, see the following section.

Eligible Review Requester

Only eligible requesters may submit a determination review request. Part 6 of ERAA defines an eligible person to submit a request as:

- Permit applicant.
- Permit holder or former permit holder.
- Person to whom an order under Section 49(1) has been issued.
- Person with respect to whim the Regulator has made a finding of a contravention under Section 62 of ERAA.

The Regulator only accepts review requests from the persons listed above. Landowners are not eligible to submit determination review requests but may submit appeal requests to the Energy Resource Appeal Tribunal based upon the criteria established within Section 72(2) of ERAA.

Review Request Timeline and Submission

A request for a review must be received by the Regulator's Review and Appeal Coordinator within 30 days of receiving either the determination or any written reasons for the determination, whichever is the later.

A request for a review must be submitted in writing to the Regulator. The request must identify the ground on which the review is requested. Upon receipt and verification of eligibility, a review official is assigned to hear the determination review. According to Section 69 of ERAA. The review official is a person who did not make the determination, but who is designated in writing to review the determination.

Review requests are emailed to DeterminationReviews@bc-er.ca or sent by direct mail to the Regulator's head office at:

BC Energy Regulator

Review and Appeal Coordinator

6534 100th Ave, Fort St. John, B.C. V1J 8C5

Chapter 8

Permit Management

Companies are responsible for ensuring all post-approval activities are carried out in accordance with the permit, ERAA, regulations and all applicable laws. Applicants and permit holders must understand the operational guidance and requirements for each activity and reporting requirements throughout the lifecycle of the energy resource and associated activity.

This chapter discusses in brief, permit amendments, terms and expiry and permit transfers. The Regulator provides activity related operational manuals and other forms and guidance documents in the documentation section of the Regulator's website.

Permit Notification; 15-day waiting period

Following a permit approval, the Regulator provides notice to the landowner(s) affected by the energy resource activity. The notice cites specific details about the location of the approved activity, and the landowners' right to appeal if applicable.

The permit holder must wait 15 days from the day the permit is issued before commencing any energy resource activity on private land, unless the landowner has consented to the permit holder in writing that the energy resource activity may commence. Written consent from a landowner is not provided to the Regulator; however, the permit holder should retain records for auditing purposes.

The permit holder must submit a notice of construction start to the Regulator prior to the start of operations. Minimum time requirements for submission of notice of construction start for various activities are outlined in the regulations and permit conditions specific to the activity.

Notices of Road Construction Post-Approval

Energy resource road permit holders must notify the Regulator, affected landowners, affected right holders and First Nations, at least 72 hours, and not more than 30 days, prior to beginning construction. Where construction must be carried out expeditiously to address an environmental or operational emergency, notice of construction start must be provided to the Regulator, affected landowners and rights holders as soon as practicable. Oil and Gas Activity Operations Manual provides further information on notices of road construction.

Permit Term and Expiry

Energy resource operators are responsible for ensuring they hold a valid permit prior to beginning construction on any energy resource or associated activity.

Section 32(1) of the *Energy Resource Activities Act* states that a permit, and any authorization issued to the permit holder for a related activity of an energy resource activity authorized by a permit, expire on the day after the prescribed period has elapsed, if the permit holder has not by that day begun an energy resource activity permitted by the permit. Section 8 of OGAA General Regulation defines the prescribed period for the purposes of Section 32(1) of the Act as two years.

If the Regulator has not received a Notice of Construction Start (NCS) or proceeded with a positive decision on a permit extension application for a permit prior to its expiration, the permit will be deemed expired.

The Regulator's receipt of a Notice of Construction Start for any activity on a permit will prevent the expiry of all activities included in the permit. Information on the Regulator's Notice of Construction Start processes is available in Chapter 4 of the Oil and Gas Activity Operations Manual.

Permit Extension Application Process

An applicant may apply for a permit extension prior to expiry. The Regulator may extend a permit and any associated authorizations by no more than one year and may add additional conditions to the current permit.

Where multiple activities are authorized under one permit, the permit extension application will capture all activities under the same AD#.

In order to extend the prescribed period for a permit, permit holders must submit a completed Permit Extension Application Form to the Regulator, along with any associated application deliverables. Permit extension applications must be submitted in digital format to permitextensions@bc-er.ca, three months prior to expiry of the permit.

Consultation and Notification for Permit Extension Applications

Section 32(3) of ERAA states that the Regulator may require the permit holder to carry out consultations or notifications with respect to the extension application as indicated in the Requirements for Consultation and Notification Regulation. Further information on consultation and notification requirements for permit extension applications is available in Chapter 6 of this manual.

Amendment Applications

Permit holders must submit an amendment application to add, modify or change any existing energy resource activity and/or related activities in a permit. Permit holders must ensure engagement and/or, consultation and notification requirements are met where applicable.

Amendment applications can include multiple changes to the permit within the same amendment application. In the case of a multi-activity permit, an amendment application can include changes to one or more activities that were part of the original permit.

However, applicants may only submit one amendment at a time against a permit, as the approval of the amendment will update current data in Regulator information systems.

Permit Surrender and Cancellation

Permits, and all activity within that permit, can be cancelled or simply left to expire. Permit holders wishing to cancel a permit or an activity within the permit, must submit a cancellation request to the Permit Administration Branch.

Where a permit is considered valid because a NCS was submitted against one activity, the remaining activity(ies) can be cancelled through a cancellation request to the Permit Administration Branch. However, the Regulator's preference is to have the permit holder identify which activity is to be cancelled (i.e. never to be constructed) through the Post Construction Plan Process.

The cancellation request letter must clearly identify:

- Regulator file number.
- Legal description location.
- If surface disturbance has occurred.

A confirmation letter is sent to the permit holder upon cancellation of the permit and related land tenures. For quarries, aggregates/borrow pits and campsites, permit holders must state whether or not the area has been left safe and clean.

Permit Transfer

A permit holder may apply to the Regulator to transfer a permit under Section 29 of ERAA. For more information on the permit transfer process and transfer application requirements, refer to the Permit Operations and Administration Manual.

Chapter 9

Hydrogen Facility General Requirements

9.1 General

A **Class 1 Hydrogen Facility** means a hydrogen facility where the aggregate weight of hydrogen at the facility (in storage and process equipment) is less than 4.5 tonnes. The facility cannot be co-located with a facility for manufacturing ammonia or methanol from petroleum, natural gas, water or another substance.

A **Class 2 Hydrogen Facility** means a hydrogen facility where the aggregate weight of hydrogen at the facility (in storage and process equipment) is equal to or more than 4.5 tonnes. The maximum hydrogen manufacturing capacity of the facility must be less than 100,000 tonnes of hydrogen per year. The facility cannot be co-located with a facility for manufacturing ammonia or methanol from petroleum, natural gas, water or another substance.

Class 3 Hydrogen Facilities are facilities which do not meet the criteria of Class 1 or Class 2 hydrogen facilities. Class 3 Hydrogen Facilities are regulated under the BCER's Processing Facility Regulation. Proponents and permit holder should reference the appropriate regulation and accompanying guidance for Class 3 Hydrogen facilities.

Codes adopted in the Hydrogen Facility Regulation include for Class 1 and Class 2 facilities include:

- CAN/BNQ 1784-000, Canadian Hydrogen Installation Code, published by the Bureau de nomalisation du Quebec
- NFPA 2, Hydrogen Technologies Code
- API 570: Piping Inspection Code, In-service Inspection, Rating, Repair and Alternation of Piping Systems

Note: flexibility is provided for proponents to select either CAN/BNQ 1784-000 or NFPA 2 for the design, construction, and operation of the subject hydrogen facility.

Additional codes adopted for Class 2 facilities include:

- CSA Standard Z767, Process safety management

In the event that a proponent or permit holder is unable to comply with the regulation or adopted codes, an exemption may be applied for. Please see the appropriate section of this document for additional information on exemptions.

In addition to the codes adopted in the Hydrogen Facility Regulation, the BCER publishes additional guideline material which may provide additional direction to proponents and permit holders. These additional guidelines include:

- Flaring and Venting Reduction Guideline
- BC Noise Control Best Practices Guideline
- Light Control Best Practices Guideline

Hydrogen facilities at to be designed, sited, constructed, operated, suspended, and decommissioned in accordance with:

- Information and records provided during the application phase and any subsequently approved amendments
    - *Note: permit holders should contact the BCER in the event of a material departure from the application materials to discuss the requirement for a facility permit amendment*.
- Codes and standards
- Generally accepted good engineering practices

The Regulator requires that operations at a facility **do not cause excessive emanation of noise.** The BCER has published the BC Noise Control Best Practices Guideline to support this requirement. The guideline was developed primarily for energy related activities in predominantly rural areas in the interior of BC. Modifications to the approaches may be required for projects in different locations (e.g. coastal, urban, or heavily industrialized areas). Contact BCER staff for additional guidance if required.

The Regulator requires that operations at a facility **do not cause excessive emanation of light.** It is expected that permit holders have done all that is reasonable to mitigate light emissions to surrounding areas, without compromising the safety of workers or the facility's safe operation.

Mitigation measures that might be considered include:

- Minimizing the amount of lighting required while ensuring safe operation of the facility.
- Minimizing brightness of lights to the extent possible.
- Use of automated sensors that shut down lighting in areas of no activity where it is safe to do so, and,
- Re-angling, shading or screening of light.

The BCER has published Light Control Best Practices Guideline to support this requirement.

Both Class 1 and Class 2 hydrogen facilities will be required to develop, implement and maintain an **integrity management program (IMP)** when designing, constructing, operating, suspending and decommissioning a hydrogen facility. The IMP is to be developed by a qualified professional.

The BCER considers an IMP to be a documented framework consisting of a systematic, comprehensive, and proactive set of interrelated processes which enables effective management of asset integrity associated with activities throughout the life cycle of the asset, including design, procurement, construction, operation, maintenance and abandonment activities. An integrity management program is expected to:

- Set relevant company policies and performance objectives
- Proactively identify hazards associated with process, various types of equipment and components of the facility, controls, humans, and evaluate risks to people, environment, and the asset,

- Manage the asset risk, through identifications and implementation of risk mitigation measures, including conducting inspection, maintenance, and monitoring activities,
- Establish clear responsibilities and accountabilities,
- Ensure personnel are trained and competent, and
- Manage documentation, reporting, evaluation and continual improvement

Additional information on expectations for IMP can be found on the BCER's website.

Class 1 and Class 2 hydrogen facilities will be required to develop, implement and maintain a **fugitive emissions management plan** that details the processes and procedures to detect, control and respond to unintentional releases of gases or vapours to the atmosphere from the hydrogen facility. If applicable, permit holders should incorporate other fugitive emission requirements associated with their facility (e.g., waste discharge permits for air discharge).

Permit holders for class 1 and class 2 hydrogen facilities will be required to maintain up-to-date and detailed **record drawings** associated with the facility, including piping and instrumentation diagrams, electrical line diagrams, plot plans and a list of all safety critical devices. These documents will need to be submitted to the BCER within 3 months of beginning operation (or completing permitted modifications, if applicable). Record drawings must be signed and sealed by a Qualified Professional.

Class 2 hydrogen facility permit holders must develop, implement, and maintain a **process safety management system** that complies with CSA Z767, Process Safety Management. By virtue of their relative size and hazard profile, Class 1 hydrogen facilities may take an alternate approach. It should be noted that some components of process safety management systems are specifically identified in the HFR and apply to both Class 1 and Class 2 hydrogen facilities.

Class 2 facility permit are required to implement measures identified in the application to minimize the potential **adverse effects of the hydrogen facility on the environment**. The BCER expects that these measures will be included in the facility design, functional, and effective for their intended purpose.

9.2 Post Permit Requirements

9.2.1 Records

The HFR requires that specific documentation and records pertaining to the lifecycle of the facility be created and retained. In some cases, minimum retention periods have been specified.

Unless otherwise indicated or requested, the documents are not required to be submitted. However, the documents are to be readily available for review by the BCER to support regulatory oversight activities.

9.2.2 Notifications

The BCER requires that permit holders notify the Regulator about key lifecycle operational activities. Class 1 and Class 2 hydrogen facilities will be required to notify the Regulator of the following:

- At least 2 days before beginning construction of a hydrogen facility.
- At least 14 days before commencing operation of any part of the facility.
- At least 24 hours before putting new or modified equipment into service.
- At least 24 hours before beginning a planned shutdown of the hydrogen facility or part of the hydrogen facility.
- Within 24 hours of an unplanned shutdown of the hydrogen facility or part of the hydrogen facility.
- At least 5 days before operations resume after a suspension of the facility.
- At least 60 days before beginning decommissioning process and on completing the decommissioning process.
- When an emergency occurs, a permit holder must notify the Regulator within one hour of becoming aware of the incident.
- A permit holder must notify the Regulator within 24 hours of becoming aware of an incident classified in accordance with schedule 2 as a minor incident.

Permit holders can submit these notices to Pipelines.Facilities@bc-er.ca. Notifications should include the facility ID, permit holder contact information, and sufficient information and context for BCER staff to review the notification. Permit holders may be contacted for additional information if required.

Advance notification for the events included above is intended to provide the Regulator with sufficient notice to assess whether additional information is required prior to proceeding. This information may be in the form of documentation or may be obtained through inspection activities.

Chapter 10

Pre-Operational Requirements

Prior to putting any part of a hydrogen facility into operation, the BCER expects that appropriate **inspections and tests** would be completed to confirm the facility is safe to operate. These inspections and tests may be defined by codes and standards.

It is the responsibility of the permit holder to understand the requirements and scope of testing. Following completion of required testing and prior to operation of the subject equipment, a statement by the qualified professional of record is to be submitted for review by the BCER. Broadly speaking, the requirement and submission timing of the statement should be prior to any associated changes in inherent facility risk (e.g. introduction of hazardous feedstocks, manufacture of hydrogen, ignition of fired equipment, etc.) The statement must:

- clearly define the scope that the statement applies to (e.g. a specific process unit, the entire facility, etc.),
- indicate a forecast date for when operations are to begin,
- reference the relevant codes and standards,
- be signed and sealed by the qualified professional, and
- include supporting material as required (e.g. PFDs, plot plans)

Appropriate testing of safety critical devices is a key focus area for the BCER. Following submission of the statement, testing records may be requested to verify the scope and results of testing activities.

Class 1 and Class 2 hydrogen facility permit holders will be required to post along the boundaries of its facility **signs** which include the name of the permit holder, emergency contact information, and the location (e.g. street address) of the facility. The intent of the signage is primarily to support emergency response activities. Signs should be visible and legible from a reasonable and safe distance from the perimeter of the facility.

Chapter 11

Operational Requirements

11.1 General Requirements

Permit holders for Class 1 and Class 2 hydrogen facilities will be required to develop, implement, and implement **safe work procedures** for all tasks that present risks to the safety of personnel or that may be detrimental to the environment.

In an effort to reduce the risk to the public or environment the permit holder must maintain the Class 1 or Class 2 hydrogen facility in a **condition that minimizes hazards**. This requirement includes, but is not limited to, consideration of housekeeping, storage of materials, storage of equipment and associated parts, site grading, and handling of waste.

Hydrogen facilities are required to have **warning, alarm, and emergency shutdown systems**. These systems can be integrated into the process control systems. Permit holders should consider segregation of systems to ensure the appropriate level of safety and redundancy is provided. Warning and alarm systems are used to notify plant workers of abnormal conditions. Depending on underlying causes, warning and alarm systems may sound in a control room (or equivalent area) and/or within the plant itself (e.g. flashing lights, horns, etc.). Emergency shutdown systems are required to act to bring the facility to a safe condition if manually triggered, or if process conditions necessitate intervention.

Under normal circumstances, **safety critical devices** must be functional. Locks or other means must be in place to prevent the bypass of safety critical devices. The HFR places limitations on bypassing safety critical devices unless a series of certain conditions have been met.

If **containment or process control is lost or compromised**, the permit holder must rectify the situation as soon as practicable. Immediately after a permit holder of a Class 1 or Class 2 facility becomes aware of an incident, they must classify the incident according to the event or consequence in the Incident Classification Matrix in Schedule 2 of the HFR that most closely describes the most severe event or consequence of the incident.

Incident Reporting Instructions and Guidelines can be found on the BCER's website.

The HFR requires that a hydrogen facility is **continuously attended**. Operation while unattended requires:

- Full automation
    - The facility must not require manual intervention or operations (e.g. opening/closing valves, manual equipment start/stop/resets) for normal functioning. An emergency shutdown system does not necessarily constitute "full automation"
- Remote facility monitoring
    - It must be possible to monitor the facility from a remote location. This could include a corporate office, centralized control room, or remote access by an authorized person. Process and facility monitoring (i.e. security) should be considered.
- Automatic notification system

- This system must automatically notify appropriately trained individuals of an event that requires intervention. The system could use call-outs, texts, pagers, or other means and should accommodate multiple layers of redundancy or escalation in the event of non-response. The responder is to be trained in relation to the facility's emergency response plans.

Atmospheric **venting** from the hydrogen facility is not permitted unless the gas heating value, volume, or flow rate is insufficient to support stable combustion. Atmospheric vents should be identified on process flow diagrams or piping and instrumentation diagrams. A list of atmospheric vents should be developed to allow for tracking and to support venting justification based on the requirements set out in the HFR.

Flaring of gas from the hydrogen facility cannot be undertaken unless there is approval to do so in the approved facility permit's list of conditions. It is recommended that at the time of facility permit application proponents carefully consider the potential requirement for flaring and clearly discuss the requirement in their application.

For both flaring and venting, the BCER requires that the **quantity and duration of flaring or venting be minimized**.

Table 1 in Schedule 1 of the HFR identifies the maximum allowable thermal radiation heat flux in relation to workers, tanks, process equipment and buildings.

Table 2 in Schedule 1 of the HFR identifies the maximum allowable thermal radiation heat flux in relation to members of the public outside the facility boundary. The limits of the facility boundary are considered to be the area owned or leased by the applicant/permit holder (or alternately the area controlled by the applicant/permit holder).

The identified maximum allowable heat flux levels have been set to maintain equipment, tank and infrastructure integrity and ensure public and worker safety. The radiation heat flux from a flare or an ignited vent stack should be calculated using an acceptable, validated model.

Thermal radiation contours should be calculated using the wind speed producing the maximum distances, except for wind speeds that occur less than 5% of the time based on recorded data for the area; and the ambient temperature and relative humidity producing the maximum distances, except for values that occur less than 5% of the time based on recorded data for the area.

Hydrogen facility permit holders must determine the quantity of **electricity used** at the facility to manufacture hydrogen. Permit holders must also determine the quantity and composition of **feedstock consumed, products manufactured, and waste** at the hydrogen facility. These will vary based on project design. Tracking these items supports the efficient use and/or conservation of resources.

Methods used to determine the quantities, and composition must be suitable for those purposes. Measurement equipment must be suitable for its purpose, kept in good operating condition, properly calibrated, and kept safe from adverse weather and interference by unauthorized persons.

The BCER requires that hydrogen facility permit holders undertake a **security risk assessment** to evaluate the following:

- Physical security
- Risks of unauthorized access to the facility operating area
- Buildings
- Equipment
- Utilities
- Records
- Security of industrial control and monitoring systems

Hydrogen facility permit holders must implement the appropriate security measures to protect the physical security of the hydrogen facility and security of its industrial control and monitoring systems.

A hydrogen facility permit holder must, before making any **change in relation to the hydrogen facility** ensure that a qualified professional conducts a hazard identification study and risk assessment respecting the proposed change. Hydrogen facility permit holders must, if the qualified professional is of the opinion that hazard or risk reduction measures are required, implement the measures.

Note: Some facility changes may require a permit amendment.

Specifically for Class 2 facilities, permit holders must, before making a change in relation to the hydrogen facility, ensure that a qualified professional conducts an assessment of the potential effects of the proposed change on the environment. If the qualified professional is of the opinion that measures are required to minimize the potential adverse effects of the proposed change on the environment, implement the measures.

11.2 Emergency Management

Emergency Response Plan

Permit holders must develop and maintain an emergency response plan that includes the following:

1. Description of the hydrogen facility and the operational activities that are the subject of the plan;
2. Description of the hazards and risks [within each hazard planning zone] arising from the operational activities;
3. A description of the hazardous products consumed, manufactured, generated or stored at the facility.
4. Emergency response roles and responsibilities;
5. Emergency response procedures;
6. Emergency notification information, including a telephone number.

Permit holders must review and update the emergency response plan information at least once a year. If the site-specific hazards and risks of the hydrogen facility change significantly, an update to the emergency response plan is required. If a permit holder becomes aware of a deficiency in the plan that risk the safety of emergency response staff, the permit holder's employees or the public, an update to the emergency response plan is required.

Hydrogen facility permit holders must also establish and maintain a liaison with the local authority responsible for emergency response to the facility. Local authorities must also be consulted in developing and updating the required emergency response plan.

Class 2 hydrogen facilities are required to include emergency procedures, guidelines and a process for the preservation, in addition to the requirements above as part of the emergency response plan.

Additional resources to support emergency response plans can be found on the BCER's website.

Emergency responders for Class 2 Facilities

It is required that class 2 hydrogen facility permit holders identify the third-party emergency responders to respond to an emergency at the facility. Third party emergency responders must be provided with the location of the facility and the description of hazards and risks [within each hazard planning zone] arising from the operational activities. They must also be provided with a description of the hazardous products consumed, manufactured, generated or stored at the facility.

Training

Hydrogen facility permit holders must develop, implement and maintain a training plan that takes into account the requirements of the contents of the emergency response plan. It is imperative that before assigning emergency response responsibilities to a person under the plan, that the person has the appropriate training in relation to the person's role and responsibilities. This is required under the Hydrogen Facility Regulation.

Engagement with Local Authorities and Indigenous Nations on Emergency Response Planning for Class 2 Facilities

Class 2 facilities must provide name and contact information of the permit holder, the street address or legal land description where the facility is located, the description of hazards and risks [within each hazard planning zone] arising from operational activities, and the description of hazardous products consumed, manufactured or stored at the facility, to the appropriate local authorities.

This information must be provided to a local authority, if any part of the emergency planning zone is located within the boundary of the local authority's territory. The same information must be provided to a local Indigenous nation.

Class 2 hydrogen facility permit holders must work with local authorities that have emergency planning zone located within the boundary of the local authority's territory and local indigenous nations to establish, coordinate and maintain a process to protect the safety of members of the public who may be affected by an emergency.

Incident Classification, Management and Emergency Response and Notification

Immediately after a permit holder becomes aware of an incident, the permit holder must classify the incident according to the event or consequence and probably of escalation or control in the Incident Classification Matrix that most closely describes the most severe event or consequence of the incident.

When an emergency occurs at a hydrogen facility, the permit holder must immediately respond to the emergency in accordance with the emergency response plan developed.

Class 2 hydrogen facility must notify the local indigenous nations as soon as possible when an emergency occurs, after the permit holder has taken any immediate actions necessary for public safety and to minimize the immediate environmental impacts.

Chapter 12

Suspension & Decommissioning

If a hydrogen facility or part of a hydrogen facility is not in operation, the hydrogen facility permit holder must implement a suspension plan within 12 months from the last date of operation. The suspension plan must be developed by a qualified professional and include measures to maintain and monitor equipment integrity while it is in a suspended state.

A hydrogen facility is considered to be decommissioned when all facilities and equipment associated with an energy resource activity have been removed from the facility operating area. This could include any equipment and structures located below grade. Decommissioning is to be carried out in accordance with a decommissioning plan prepared by a qualified professional. The plan should include measures to monitor for any residual short-, medium-, or long-term effects from the presence of the hydrogen facility.

APPENDIX A - Environmental Effects Assessment Form

Note: This form is intended to allow applicants to demonstrate their compliance with the environmental effects assessment requirements for Class 2 Hydrogen projects. Where appropriate based on the project setting, this form should refer to detailed assessment / mitigation reports for the environmental values that are at risk of impact from the project.

Project Information

1.1 Project Description	
Facility Type:	
Legal Location:	
Application Number#:	
Surface Ownership:	☐ Crown and/or ☐ Private
1.2 Applicant Information	
Qualified Professional (QP):	
QP Contact:	

Environmental Setting

2.1 Soils	**Yes**	**No**	**Comments / Attachments**
Are there potential impacts to soils (including soil stability and productivity)?			
Mitigative Measures:			
2.2 Surface Water	**Yes**	**No**	**Comments / Attachments**

Are there classified surface water features or riparian zones in proximity to the proposed development area?			
Are the potential impacts to surface water quality or quantity?			
Are the potential impacts to riparian management areas or reserve zones?			
Will Natural Drainage Patterns be altered?			
Mitigative Measures*:*			
2.3 Groundwater	**Yes**	**No**	**Comments / Attachments**
Is the proposed development area on top of any mapped aquifers?			
Are there potential impacts to groundwater quality and quantity?			
Mitigative Measures*:*			
2.4 Air/Light/Noise Quality	**Yes**	**No**	**Comments / Attachments**
Are there planned air emissions?			
Are there potential impacts from light pollution?			
Are there potential impacts from noise pollution?			
Mitigative Measures*:*			
1.2 **Wildlife and Wildlife Habitat**	**Yes**	**No**	**Comments / Attachments**
Does the project have the potential to effect wildlife or wildlife habitat including but not limited to: - Species at risk - Migratory birds - Nesting features - Sensitive watersheds			
Mitigative Measures*:*			
1.1 **Vegetation**	**Yes**	**No**	**Comments / Attachments**
Have Plant Species of Conservation Concern been identified in proximity to or within the proposed development area?			
Have invasive plant species been identified within the proposed development area?			
Have concerns to forest health been identified?			
Does the proposed development area overlap old growth forest?			

Mitigative Measures*:*
Mitigative Measures*:*

Professional Declarations (Qualified Environmental Professional)

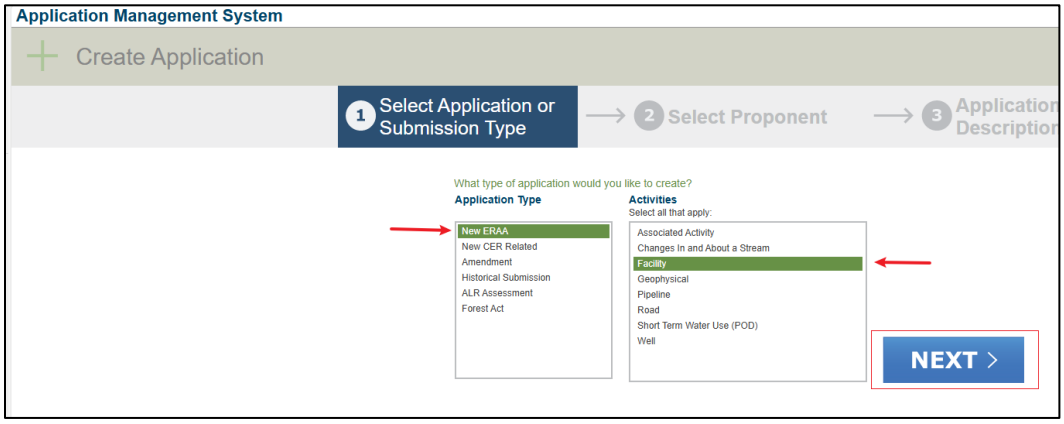
Professional Seal Darwin A. Wards, RP. Bio.	***Professional Seal*** Crystal Clearwater, RP. Bio. (For Surface water, groundwater, wildlife)

Appendix B: Creating and Completing a Hydrogen Class 1 or Class 2 Facility Application

Until enhancements can be made in the Application Management System (AMS) for Hydrogen Class 1 and Class 2 Facilities, applicants may follow the process outlined below to address the mandatory AMS application requirements for a Hydrogen Class 1 or Class 2 Facility.

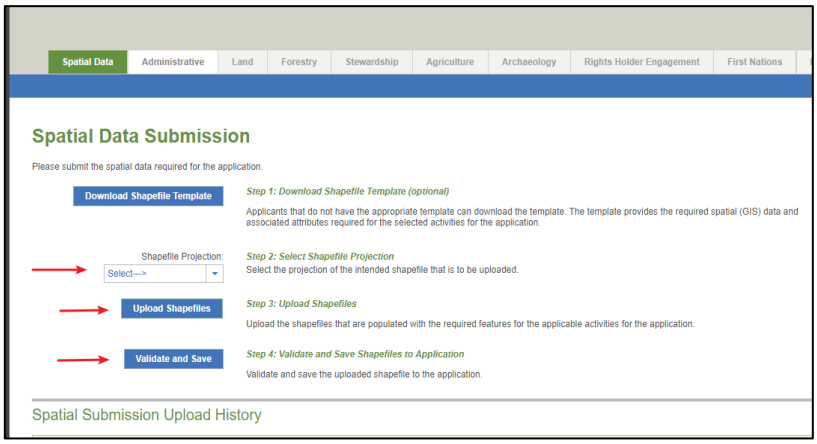
Creating the Application

Select New ERAA for the application type and Facility for the activity type:



Spatial Data Tab

After the application has been created, the spatial data tab will display, and the applicant will be required to upload the spatial data file that contains the spatial data for the facility activity. Spatial data must be uploaded in the AMS using the spatial template found on the AMS Resources webpage.



Completing the Application Information Tabs

Administrative Tab

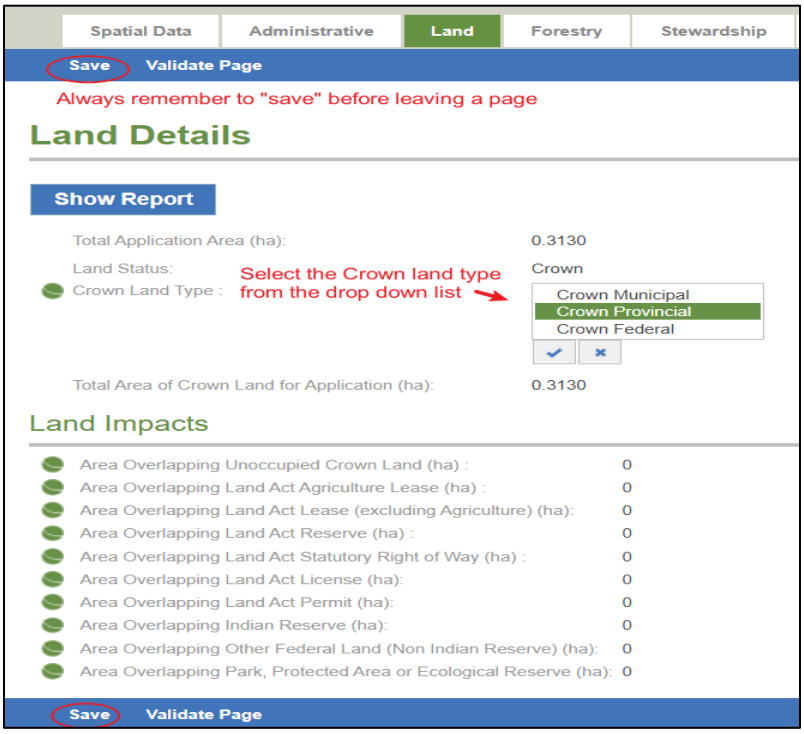
The Administrative tab page captures information related to representatives for the various aspects of the application. The information provided will serve as a source of contact for the Regulator where information is required during a related review.

In the Facility application, a Facility Engineer contact is mandatory. When the application is submitted, an email will be sent to this contact, advising them that their name was cited as the Facility Engineer for the application.

An Archaeologist contact is also required for all applications that require an archaeology review /HCA permit. When the application is submitted, an email will be sent to this contact, advising them that their name was cited as the Archaeologist in the application.

Land Tab

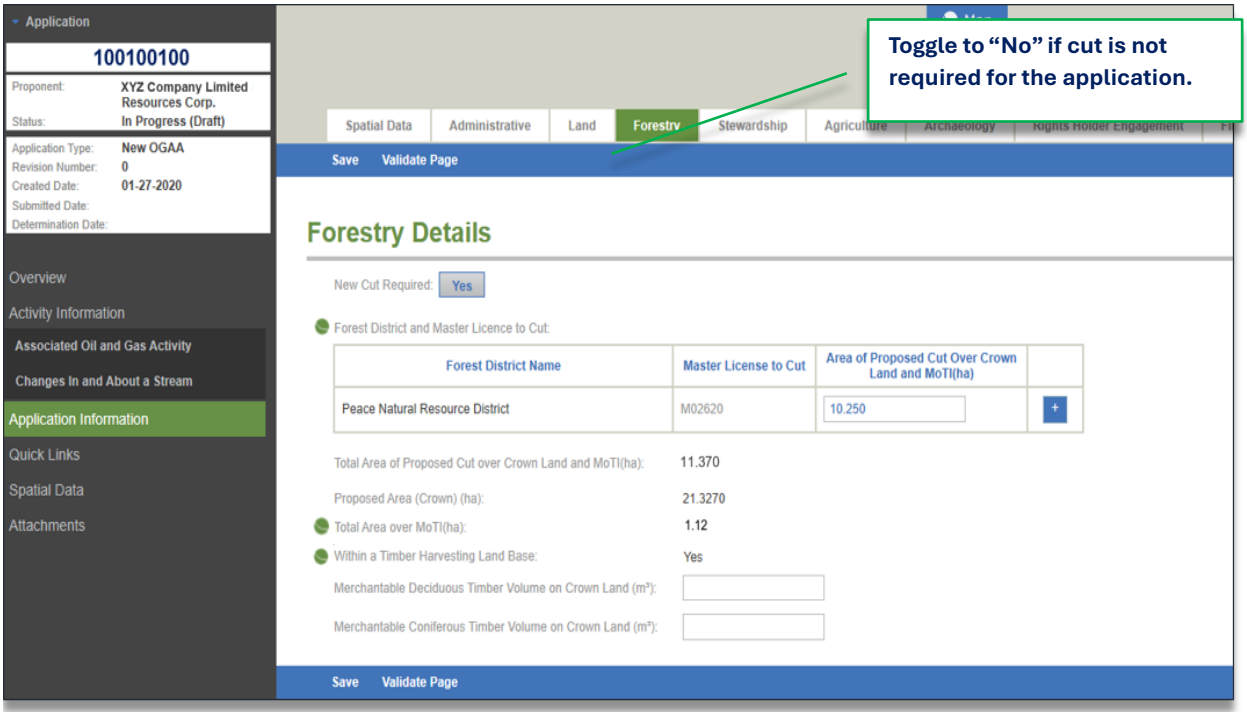
The Land tab page captures information related to the land details where the application includes land area. The information that displays on the Land tab page is spatially derived. For applications on Crown Land, the Crown land type is required. Select Crown Provincial, Crown Municipal or Crown Federal from the Crown Land Type drop down list.



Forestry Tab

The Forestry tab page captures information related to the Crown land cut required for an application.

If a cutting permit for new cut on Crown land is required, applicants will answer yes, to the question, “New Cut Required” and enter the total proposed new cut required over Crown land and MoTI areas. If no new cut on Crown land is required, applicants will respond “no” to the question and nothing further is required.

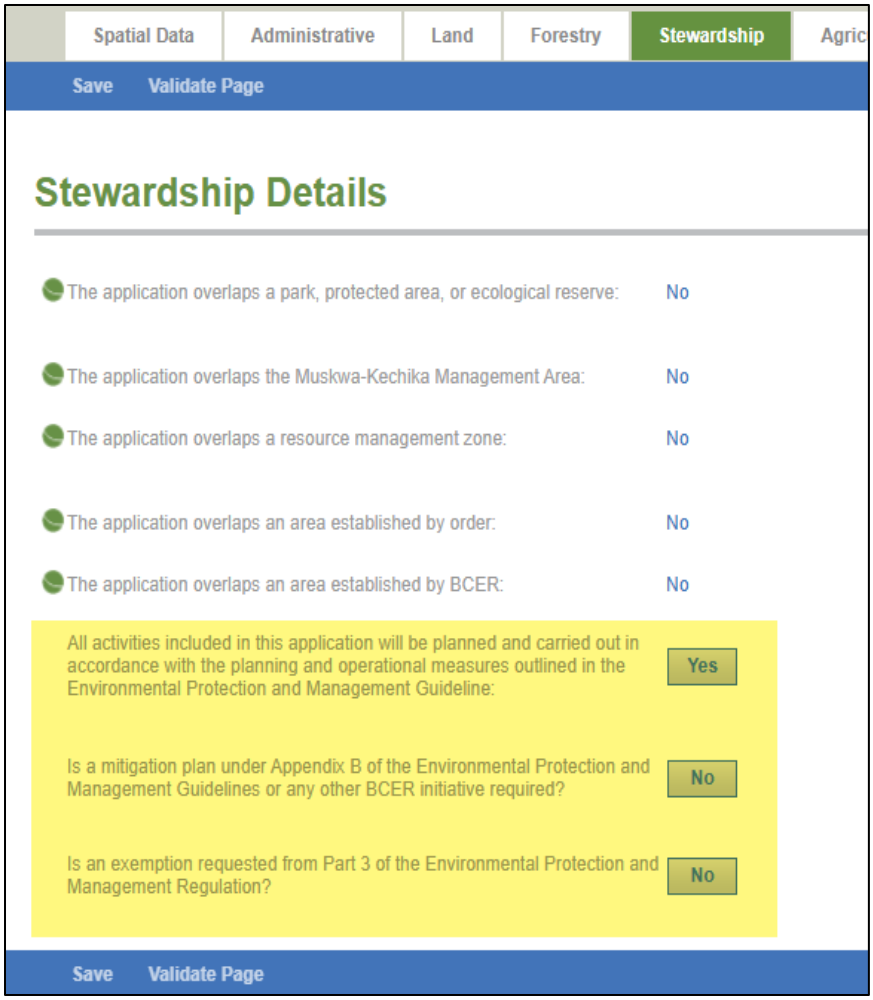


Applicants must ensure they have a valid MLTC prior to applying for a cutting permit on Crown land. If a Master Licence to Cut is required, please refer to the Regulator’s Permit Operations and Administration Manual.

Stewardship Tab

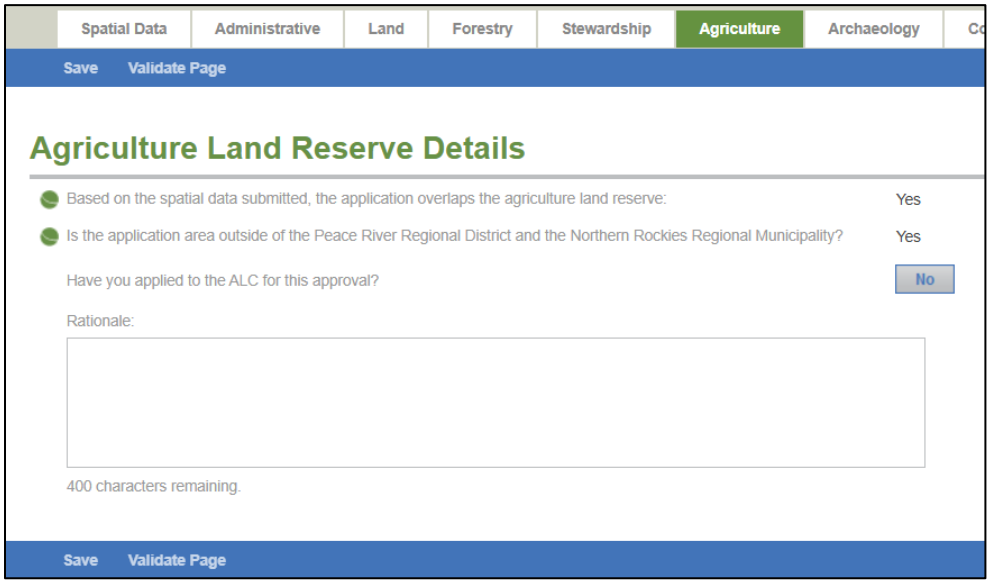
The Stewardship tab contains multiple fields that are spatially derived. When an activity is proposed on Crown land or when a spatially derived question is 'Yes' the applicant must complete the Stewardship tab in accordance with Chapter 5.6 of the Oil and Gas Activities Application Manual.

When the activity is proposed on private land and all spatially derived questions result in 'No' the applicant may answer the three remaining questions as follows provided the Environmental Effects Assessment and any associated mitigation plans have been provided.



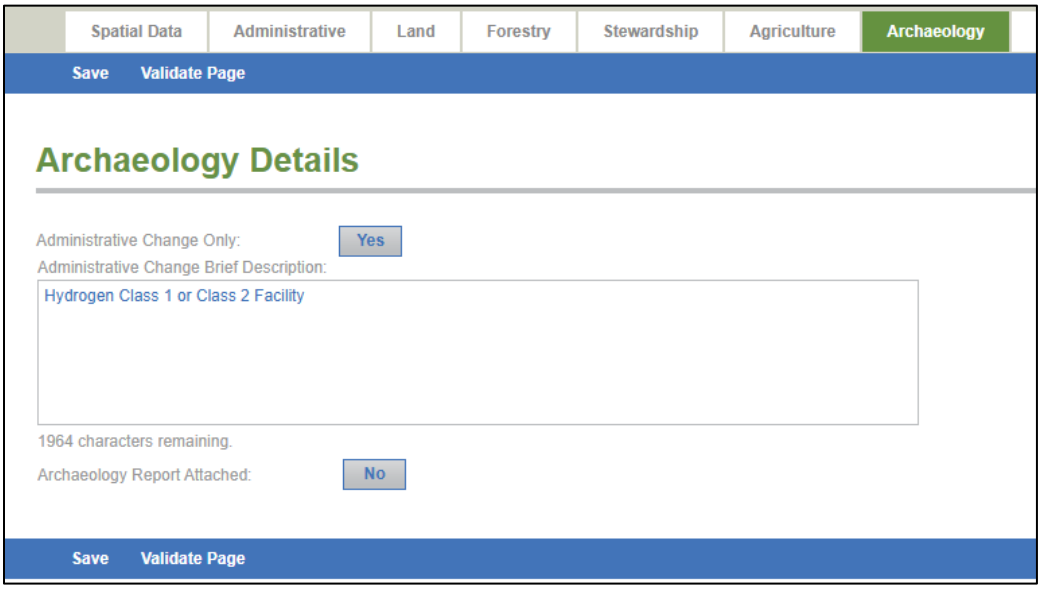
Agriculture Tab

The AMS will determine if the proposed activity is overlapping the Agricultural Land Reserve (ALR). based on the spatial data. For applications that overlap the ALR and are outside the Peace River Regional District and the Northern Rockies Regional Municipality, the applicant is required to answer the question, "Have you applied to the ALC for the approval?" If the answer is no, a rationale is required.



Archaeology Tab

The Archaeology tab page captures archaeological related matters for applications. For applications that meet the requirement of an "Administrative Change," applicants will select "yes" and provide a rationale in the Administrative Change Brief Description Text Box.



Consultation & Notification Tab

The Consultation and Notification (C&N) tab page captures information related to the consultation and notification for an application.

Class 1 Notification Requirements

If the application for a Hydrogen Class 1 facility falls on private land and the applicant does not own the land on which the facility is located, a Landowner Notification Report must be submitted with the application. This report can be uploaded under the Attachments tab as an "other" document.

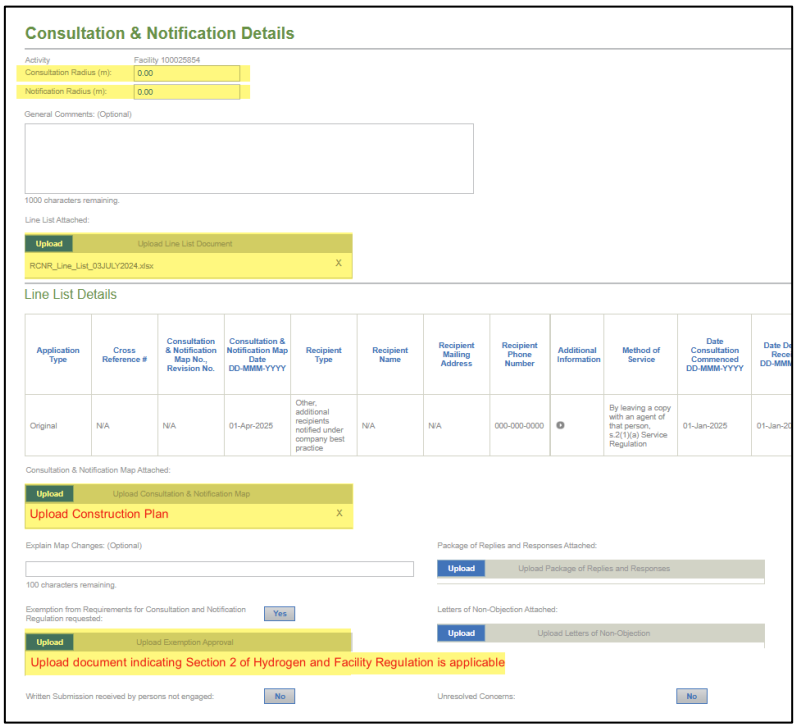
Class 2 Notification Requirements

For a Class 2 hydrogen facility, the applicant is required to submit the Public Engagement and Notification report as outlined in section 10 of the Hydrogen Facility Regulation. This report can be uploaded under the Attachments tab as an "other" document.

Complete mandatory application requirements under the Consultation and Notification tab in the AMS as follows:

- Consultation Radius (m): 0.00
- Notification Radius (m): 0.00
- Upload Line List Document:

  Upload a RCNR line list with one row completed. When selecting the recipient type from the drop down list within the RCNR line list, select "Other, additional recipients notified under company best practice."
- Consultation & Notification Map Attached: The construction plan may be uploaded in place of C&N Map
- Exemption from Requirements for Consultation and Notification Regulation requested:
  Answer yes and upload a document that explains notification as per Section 2 of the Hydrogen and Facility Regulation is applicable.
  Example of information entered under the Consultation and Notification Tab:



First Nations Tab

The First Nations tab page captures information related to the First Nations engagement and consultation for the application. In new applications and amendment applications that include new application area or water use, the page will auto-populate spatially derived First Nation communities.

Complete mandatory application requirements under the First Nations tab for Class 1 Hydrogen facility as follows:

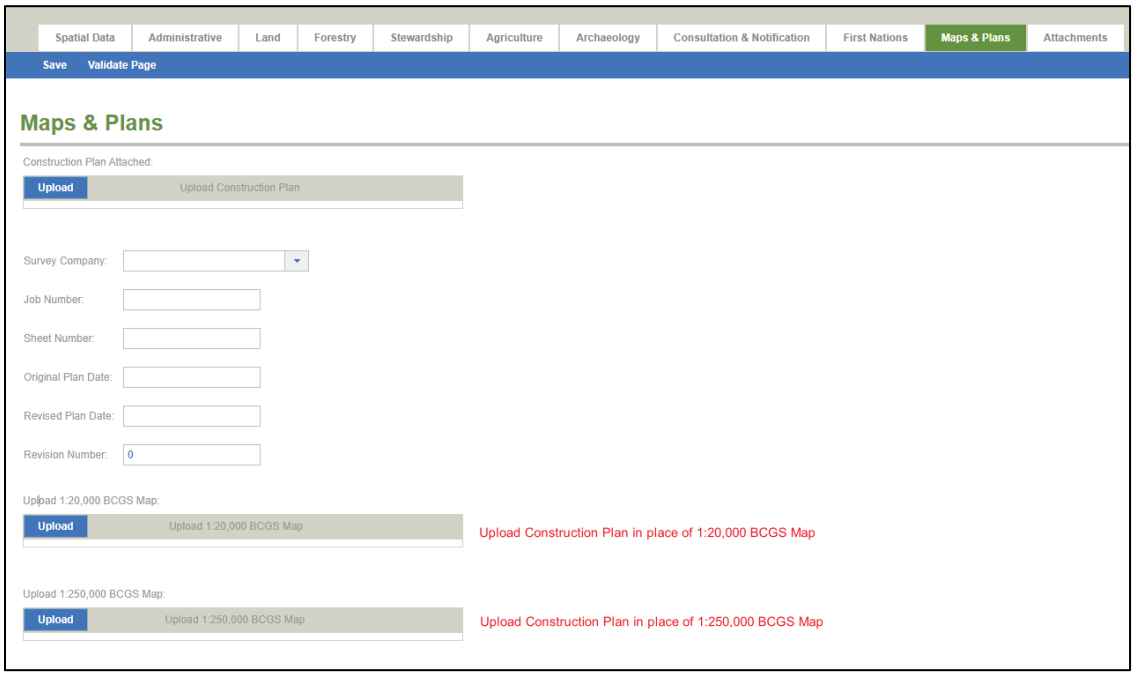
- Upload First Nations Project Description Form: In place of the First Nations Project Description Form, upload a document that explains First Nations consultation is not required for Class 1 Hydrogen Facility.
- First Nation Community Description Text Box: In the description text box for each spatially derived First Nation Community, provide a description that explains First Nations consultation is not required for Class 1 Hydrogen Facility.

Complete mandatory application requirements under the First Nations tab for Class 2 Hydrogen facility as follows:

- First Nations Project Description Form: For Class 2 Hydrogen facilities where an Authorization Director has deemed First Nations consultation is not required, upload the confirmation document from the Director under the Project Description Form.
- First Nation Community Description Text Box: : If the Authorization Director has deemed First Nations consultation is not required, provide a description in the description text box for each spatially derived First Nation Community that explains First Nations consultation is not required for the Class 2 Hydrogen facility.

Maps & Plans Tab

The Maps and Plans tab captures information related to the construction plan and other maps or plans that are required for applications. For Hydrogen Class 1 and Class 2 Facility applications, the 1:20, 000 BCGS and 1:250, 000 BCGS maps are not required. The applicant may upload the construction plan in place of these maps in order to meet the application requirements.



Attachments Tab

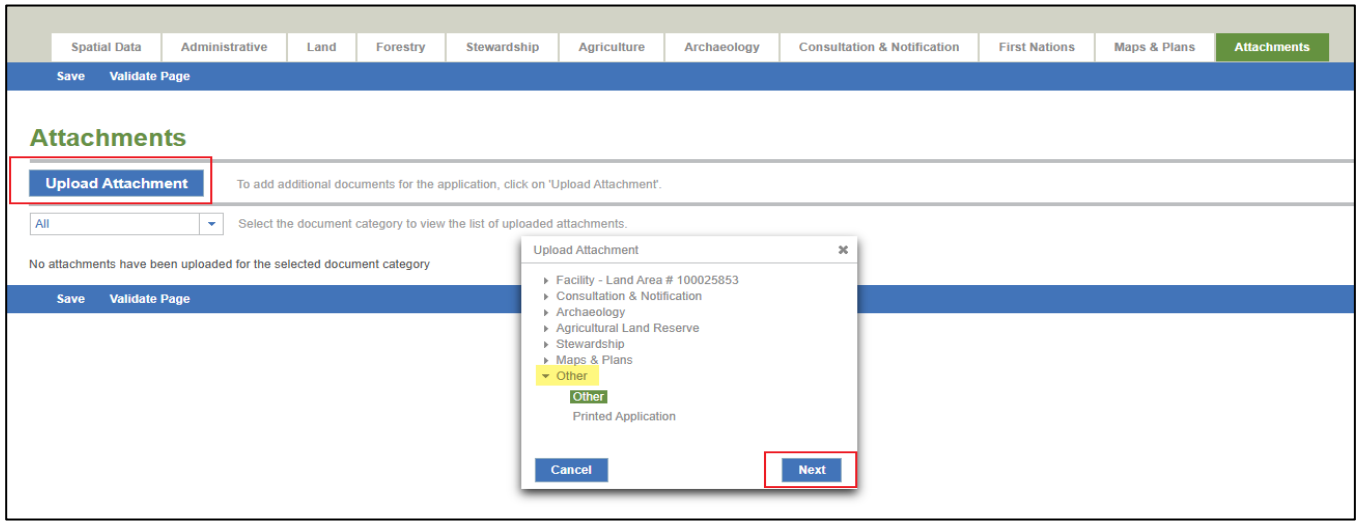
The Attachments tab page displays information related to all the attachments uploaded within the application.

The following documents may be uploaded under Attachments tab as an “other” document.:

- Environmental Effects Assessment Form,
- Landowner Notification Report, and
- Public Engagement and Notification Report

To upload a document under the Attachment tab:

- Click on the blue “Upload Attachment” button,
- Click on Other, and
- Select “Other” from the drop down list:



AMS will accept attachments in a .pdf, .xlsx or .docx file type with a maximum size of 50MB.Uploading

Completing the Activity Information Tabs

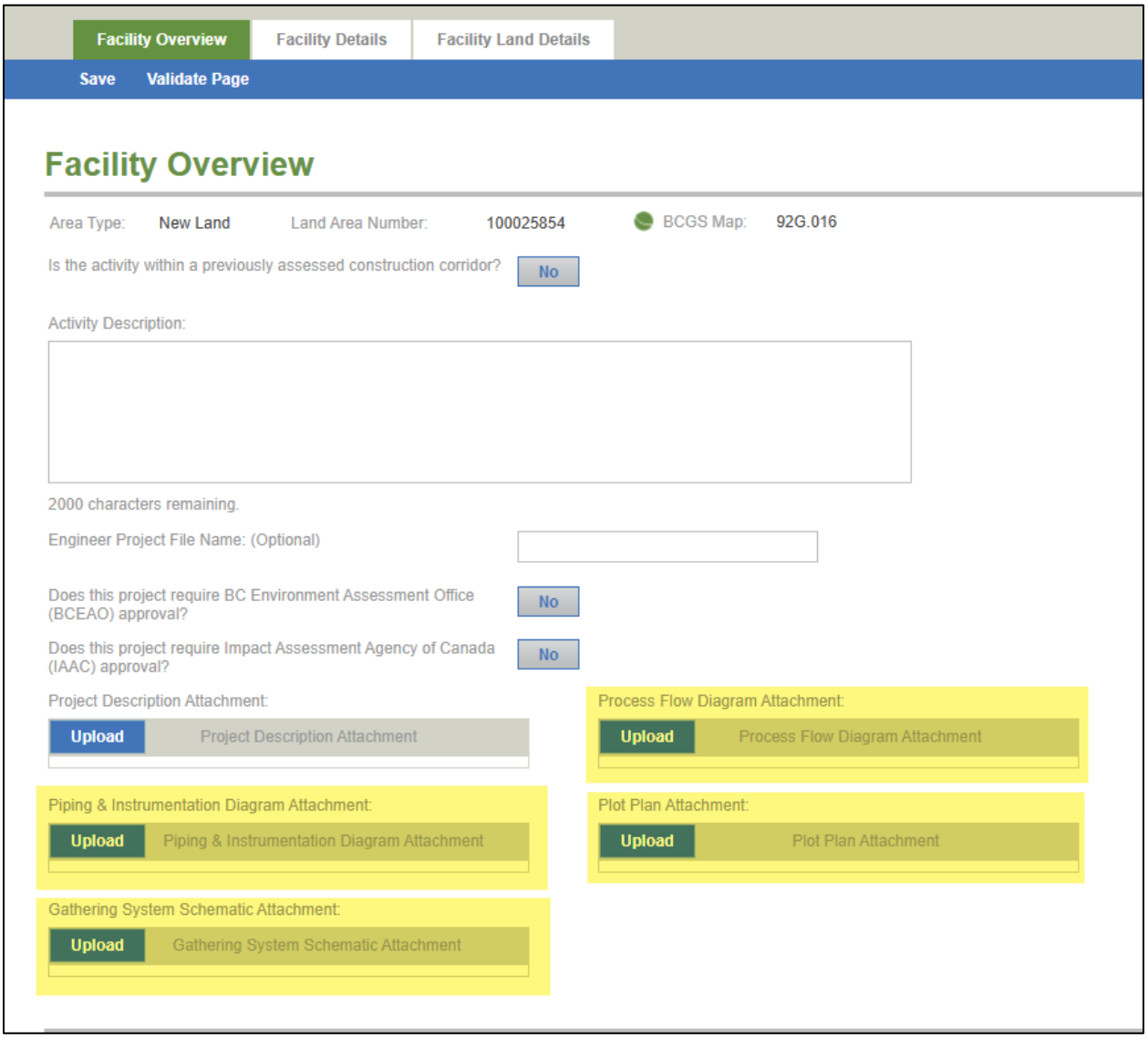
Facility Overview Tab

Complete the mandatory application requirements under the Facility Overview tab for Class 1 Hydrogen facility as follows:

- Process Flow Diagram Attachment: In place of the Process Flow Diagram Attachment, upload a document that explains the Process Flow Diagram is not required for a Class 1 Hydrogen Facility.
- Piping & Instrumentation Diagram Attachment: In place of the Piping & Instrumentation Diagram Attachment, upload a document that explains the Piping & Instrumentation Diagram is not required for a Class 1 Hydrogen Facility.
- Plot Plan Attachment: In place of the Plot Plan Attachment, upload a document that explains the Plot Plan is not required for a Class 1 Hydrogen Facility.
- Gathering System Schematic Attachment: In place of the Gathering System Schematic Attachment, upload a document that explains the Gathering System Schematic is not required for a Class 1 Hydrogen Facility.

Complete the mandatory application requirements under the Facility Overview tab for Class 2 Hydrogen facility as follows:

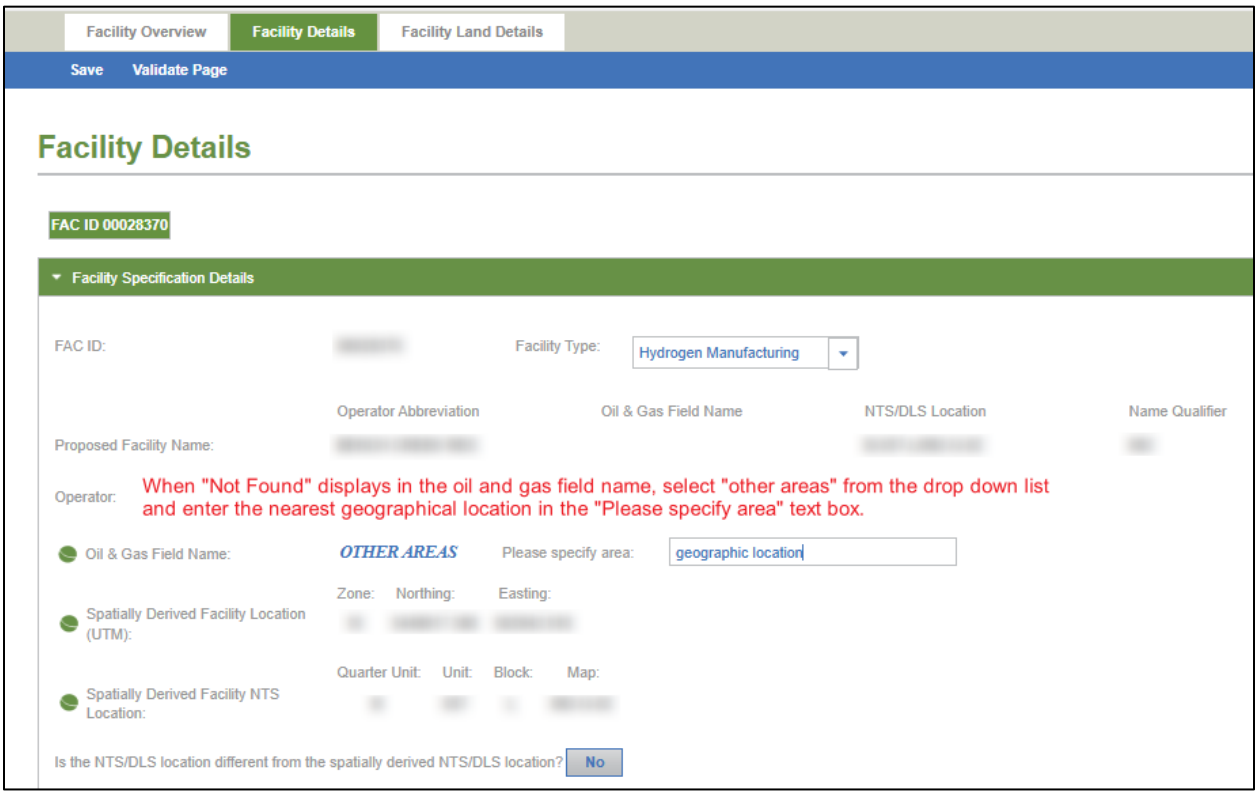
- Gathering System Schematic Attachment: In place of the Gathering System Schematic Attachment, upload a document that explains the Gathering System Schematic is not required for a Class 2 Hydrogen Facility.



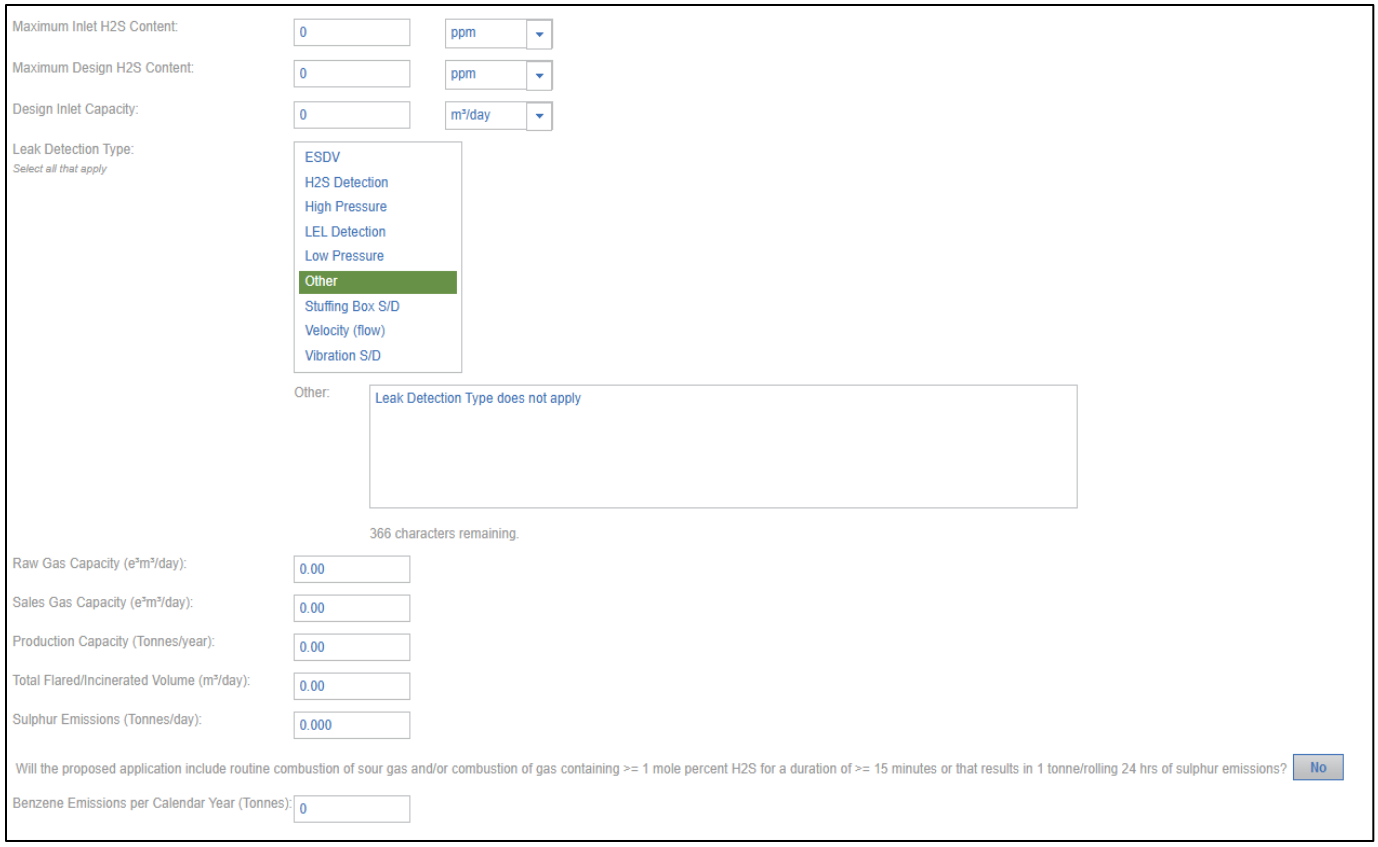
Facility Details Tab

Complete the mandatory application requirements in the Facility Specification Details section under the Facility Details tab for Class 1 and Class 2 Hydrogen facility as follows:

- Oil and Gas Field Name: AMS will spatially derive the oil and gas field name or display “not found” if the well location is not located within a defined field. When “not found” displays, applicants may select the nearest appropriate field from the oil and gas field name drop-down list or enter the nearest geographical location. To enter a field name that is not available in the drop-down list, select “Other Areas” from the list and type the name in the ‘specify area’ text field.

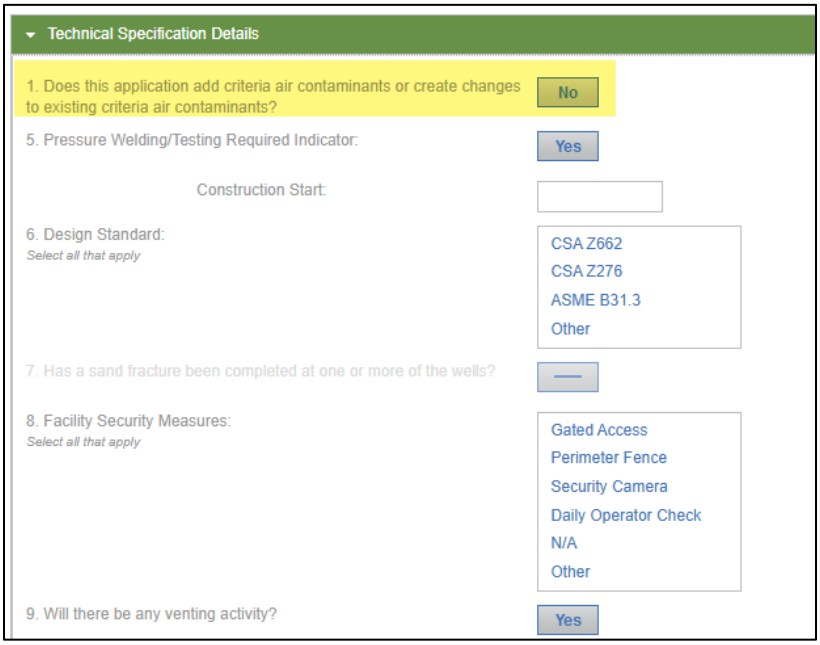


- Maximum Inlet H2S Unit of Measure: select ppm from the drop down list
- Maximum Inlet H2S Content: enter 0
- Maximum Design H2S Unit of Measure: select ppm from the drop down list
- Maximum Design H2S Content: enter 0
- Design Inlet Capacity Unit of Measure: select m3/day from the drop down list
- Design Inlet Capacity: enter 0
- Leak Detection Type: Select all the apply or “other” if none apply and explain none apply in the “other” text box that displays.
- Raw Gas Capacity (e3m3/day): enter 0.00
- Sales Gas Capacity (e3m3/day): enter 0.00
- Total Flared/Incinerated Volume (m3/day): enter 0.00
- Sulphur Emission (Tonnes/day): Enter 0.000
- Answer no, to the question “Will the proposed application include routine combustion of sour gas and/or combustion of gas containing >= 1 mole percent H2S for a duration of >= 15 minutes or that results in 1 tonne/rolling 24 hrs of sulphur emissions?”
- Benzene Emissions per Calendar Year (Tonnes): Enter 0



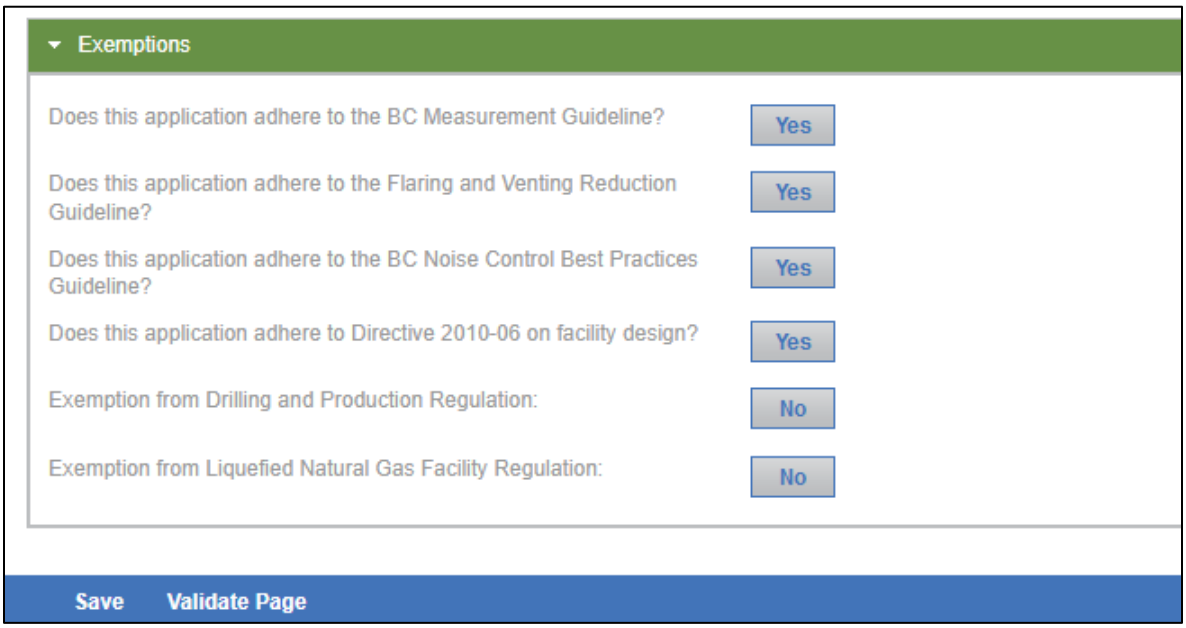
Complete the mandatory application requirements in the Technical Specification Details section under the Facility Details tab for Class 1 and Class 2 Hydrogen facility as follows:

- Answer no, to Q1 “Does this application add criteria air contaminants or create changes to existing criteria air contaminants?”



Complete the mandatory application requirements in Exemption section under the Facility Details tab for Class 1 and Class 2 Hydrogen facility as follows:

- Answer yes, to the question “Does this application adhere to the BC Measurement Guideline?”
- Does this application adhere to the Flaring and Venting Reduction Guideline?
  Class 1 Hydrogen Facility: Answer yes.
  Class 2 Hydrogen Facility: Answer accordingly
- Answer yes, to the question “Does this application adhere to the BC Noise Control Best Practices Guideline?”
- Answer yes, to the question “Does this application adhere to Directive 2010-06 on facility design?”
- Answer no, to “Exemption from Drilling and Production Regulation”
- Answer no, to “Deviation Exemption from Liquefied Natural Gas Facility Regulation”


Exemptions
Does this application adhere to the BC Measurement Guideline?
Yes
Does this application adhere to the Flaring and Venting Reduction Guideline?
Yes
Does this application adhere to the BC Noise Control Best Practices Guideline?
Yes
Does this application adhere to Directive 2010-06 on facility design?
Yes
Exemption from Drilling and Production Regulation:
No
Exemption from Liquefied Natural Gas Facility Regulation:
No
Save
Validate Page