



Best Achievable Technology

The purpose of this document is to summarize the Ministry's approach for determining Best Achievable Technologies with respect to controlling discharges to the environment. Using Best Achievable Technology can result in a significant reduction of waste discharges to ensure the protection of the environment, and to promote continual improvement of air, land, and water quality.

Where is this approach used?

This approach is considered when setting waste discharge standards. It also assists Ministry staff in providing proponents with a clear set of expectations regarding the evaluation and selection of pollution control technologies.

What is Best Achievable Technology (BAT)?

Best Achievable Technology means the technology which can achieve the best waste discharge standards, and that has been shown to be economically feasible through commercial application. (There is a difference between "best achievable technology" and "best available technology".) Though scoping focuses on proven applications, the Ministry encourages the consideration of technologies that are not yet in commercial operation, to promote innovation. Within this context, technology in general terms can refer to industrial processes, alternative fuels, pollution control equipment, energy-efficient equipment and processes, and engineering practices.

When is a BAT evaluation required?

A BAT evaluation is generally required when making decisions regarding appropriate discharge standards, to ensure the protection of the environment. BAT evaluations are most often required when emission standards are developed, new waste discharges are proposed, when authorizations are undergoing a significant amendment, or when facilities are in a sensitive environment.

What are the steps undertaken in identifying BAT?

The evaluation and selection of BAT to assist in determining waste discharge standards may consist of some or all of the following steps.

1. Identify all technologies and options, which may include:
 - alternative industrial processes
 - alternative fuels
 - pollution control equipment
 - energy-efficient equipment/processes
 - engineering practices
2. Eliminate technically infeasible options.
3. Evaluate the reliability of each option in terms of the probability that the technology will operate according to its specifications.
4. Rank options by control effectiveness in terms of relative discharge intensity.
5. Rank cost effectiveness of each option in terms of dollars per unit of emission reduction.
6. Recommend which option is the BAT.

How does BAT affect decision making?

A BAT evaluation provides Ministry staff with information to support the setting of waste discharge standards, but is not used to prescribe specific technologies or equipment for use. Rather, proponents are encouraged to consider raw material use, process modifications, or end-of-pipe controls to meet discharge standards.

Are there other considerations?

The outcome from a BAT evaluation is one of the many considerations taken into account when developing waste discharge standards. Additional sources of information considered may include but are not limited to: environmental sensitivity, cumulative effects, environmental impact assessments, local air and water shed plans, First Nations interests, other guidelines, and stakeholder input.

Proponents are strongly recommended to contact the Environmental Management Section in the regional Ministry of Environment office to discuss specific projects. The onus is on proponents to ensure that they meet all legislative requirements and comply with all applicable legislation in place. Proponents are advised to ensure that no land or equipment is purchased prior to being aware of appropriate environmental processes, requirements, and standards that may be in place. Authorizations are often location- and technology-dependent, and it is therefore important to ensure the requirements are understood at the front end of the project before significant investments have been made.

For more information contact the Environmental Standards Branch at: esb@gov.bc.ca

or consult our website at:

[BC Environment Industrial Waste – \(http://www2.gov.bc.ca/gov/topic.page?id=EBF41928C5E049F0BFA5E6FD3BB549A9\)](http://www2.gov.bc.ca/gov/topic.page?id=EBF41928C5E049F0BFA5E6FD3BB549A9)

