

# CMC: Environmental Management Systems

## What is an Environmental Management System?

According to the US EPA, an Environmental Management System (EMS) is a “a set of processes and practices that enable an organization to reduce its environmental impacts and increase its operating efficiency.” These processes and practices are usually established according to a framework, encompassing organizational structure as well as the systematic planning and documentation of environmental programs.

The most widely used framework used to certify effective implementation of an EMS is the ISO 14001:2015 standard (International Organization for Standardization). The ISO standard requires organizations to consider environmental issues related to operations from a holistic perspective, exemplified by the program areas evaluated by NCS. Third party organizations can certify the EMS of an organization against the ISO standard to ensure it has been properly implemented.

## How can an EMS be useful to CMC?

CMC’s current sustainability programs are often specific to individual campuses. As mentioned in the Sustainability Plan, CMC can benefit from institutionalizing its efforts. Setting up and utilizing an EMS can provide a structured approach to efficiently manage its program to ensure effective management, communication, documentation and goal tracking throughout the college. An EMS also demonstrates assurance to outside stakeholders regarding the ongoing improvement of CMC’s sustainability program, providing accountability to support CMC’s commitments to the President’s Climate Action Plan and other public assurances.

Additional benefits of utilizing an EMS include identifying efficiencies and reducing costs, ensuring compliance with regulations, increasing engagement of employees and leadership, and promoting the sustainability of suppliers.

## Components of an EMS

The general components of an EMS are implemented in five main stages as defined by ISO. These stages are based on the Plan-Do-Check-Act methodology, ensuring continuous improvement. CMC would implement an EMS as described:

1. **Commitment and Policy:** Leadership within CMC will first need to commit to improving its sustainability program and establish CMC’s environmental policy, which forms the basis of the EMS.
2. **Planning:** CMC will prioritize the identified environmental impacts according to criteria deemed most important by CMC stakeholders. Once the impacts have been determined, CMC should set broad goals as well as specified, quantifiable targets related to the goals. Finally, CMC must designate ownership, establish a schedule and outline the

steps required for each goal and target in a documented action plan. The Sustainability Plan provides the basis for this Planning step.

3. **Implementation:** CMC pursues and utilizes needed resources to implement the action plan, including hiring appropriate staff, training employees and other stakeholders (including students and vendors), and documenting and communicating operating procedures and progress.
4. **Evaluation:** CMC must revisit its goals and targets to evaluate progress. If progress is not being made according to the established plan, CMC must take corrective action.
5. **Review:** CMC leadership will review the results of the evaluation to determine effectiveness of the EMS and alignment with the established environmental policy. The plan is then revised as appropriate, ideally resulting in continuous improvement of CMC's sustainability program.

## Publicly Available Examples

Companies often use third party software to implement an EMS, but many others use standard office software such as the Microsoft Suite as appropriate to their organizational and financial conditions. Numerous generic templates are available online should CMC decide not to create an EMS from scratch. Two examples are described below:

The [EMS Implementation Guide for Colleges and Universities](#), developed by the US EPA Region 1 using input from a number of schools, is a helpful roadmap to begin constructing an EMS. The Guide provides templates for environmental aspect assessments, action plans, compliance calendars, nonconformance forms, and many other useful examples. These templates are in PDF form, which may not be ideal for replicating.

If recreating documents from the Colleges and Universities Guide is time intensive, the Government of Hong Kong Environmental Protection Department has provided a [Master List of EMS Documents](#) in Microsoft Word form that can be tailored to CMC's specific circumstances. While not all documents are relevant to CMC as they have been developed for construction sector SMEs, they are general enough that CMC can choose the most appropriate documents for tailoring into a basic EMS.

## Resources

Colorado Department of Public Health and Environment, "[Colorado Environmental Leadership Program \(ELP\) Handbook, Appendix A – EMS Requirements](#)"

Government of Hong Kong Environmental Protection Department, "[Master List of EMS Documents](#)"

ISO, "[ISO 14000 – Environmental Management](#)"

US EPA, "[Environmental Management Systems \(EMS\)](#)"

US EPA Region 1, "[EMS Implementation Guide for Colleges and Universities](#)"

