

4.3.4 ENVIRONMENTAL MANAGEMENT PROGRAMS

ENVIRONMENTAL MANAGEMENT PROGRAM DEFINED

ISO 14001 uses the term environmental management program when it really means the action plan to achieve environmental objectives and targets. In everyday business language, an action plan describes:

- How objectives and targets will be achieved
- Who is responsible for achieving them – who will do the work
- Who has authority to manage and supervise the work and who is accountable for achievement of the objectives and targets
- What each of these persons will do
- What resources (e.g., money, time, personnel, equipment) they need.
- How progress will be measured (i.e., key performance indicators)
- When the various tasks will be done – a schedule and completion dates.

IMPLEMENTING AN ENVIRONMENTAL MANAGEMENT PROGRAM

Environmental management programs are practical 'to do' lists and charts that give a daily, weekly, monthly, quarterly, and sometimes an annual breakdown of tasks to be accomplished in pursuit of achieving environmental objectives and targets. They cover the who, how, what, where, and when of ISO 14001 EMS implementation. An EMP also provides a form of checklist against which progress can be measured.

Once again, it would be wise for an organization to involve the proposed participants in developing details of the program (action plan), both to benefit from the full range of expertise available, and to generate commitment from those who will carry out the program of work.

**ISO 14001 4.3.4
ENVIRONMENTAL
MANAGEMENT PROGRAM
says:**

The organization shall establish and maintain programs for achieving its objectives and targets, including:

- (a) designation of responsibility for achieving objectives and targets at each level and function of the organization;
- (b) the means and time-frame by which they are to be achieved

If a project relates to new developments and new or modified activities, products, or services, programs shall be amended where relevant to ensure that environmental management applies to such projects.

To be useful, EMP should be flexible, not cast in stone. They must be regularly reviewed and kept up to date (i.e., maintained, in ISO 14001 jargon) to reflect changes in personnel, priorities, schedules, budgets and, when necessary, objectives and targets. Adjustments to an EMP may be necessary when raw materials change, or a manufacturing or waste treatment process or equipment is modified, or anytime a change occurs in a related

environmental aspect. Constant monitoring of an EMP is necessary to assure its continuing relevance.

Key performance indicators (KPI) are quantitative measurements of progress towards achieving environmental objectives and targets, and should be a part of every EMP. According to ISO 14004 (General Guidelines on Principles, Systems, and Supporting Techniques for EMS), KPI should be based on objective data generated by reliable techniques, and verified by quality assurance and quality control procedures. Typical KPI include:

- Amounts of raw materials used per unit of production
- Amount of energy per unit of production
- Pollutant emission levels or waste amounts expressed as concentrations, or in terms of total loadings per day or loadings per unit of production
- Amount of waste for disposal per unit of raw material input
- Percent reduction in total waste or specific kinds of waste from all areas of the operation or from individual areas
- Number of accidents, incidents, or near misses in a given period
- Amount of land set aside for wildlife, recreation, or other biological values
- Number of trees of various species planted for reforestation
- Number of species of wildlife or fish preserved within the zone of influence of discharges or emissions from the facility
- Number of times per year out of compliance with laws and regulations
- Number of personnel satisfactorily trained, and with demonstrated competence in environmental awareness.

ISO 14001 PLANNING – THE BIG PICTURE

In summary, there are four elements in planning for an ISO 14001 EMS. EMP (or action plans) are designed to achieve environmental objectives and targets, which are generated from consideration of significant environmental aspects, legal and other requirements, the views of interested parties, and other factors (e.g., technological, business, financial, and operational), all of which are focussed towards conforming with commitments made by the organization in its environmental policy.

SUMMARY OF KEY POINTS

- EMP are detailed action plans for achieving objectives and targets.
- EMP specify responsibilities, schedules, and the resources needed (i.e., who does what, how they do it, and by when).
- Key performance indicators are specific, quantitative measures used to track progress in the EMP towards objectives and targets.
- EMP must be regularly revised and kept up to date to reflect whatever is the current status.