

BIOSOLIDS RECYCLING



CONTINUAL IMPROVEMENT SYSTEMS

fact sheet

Nurturing Biosolids Excellence Among NBMA Member Agencies

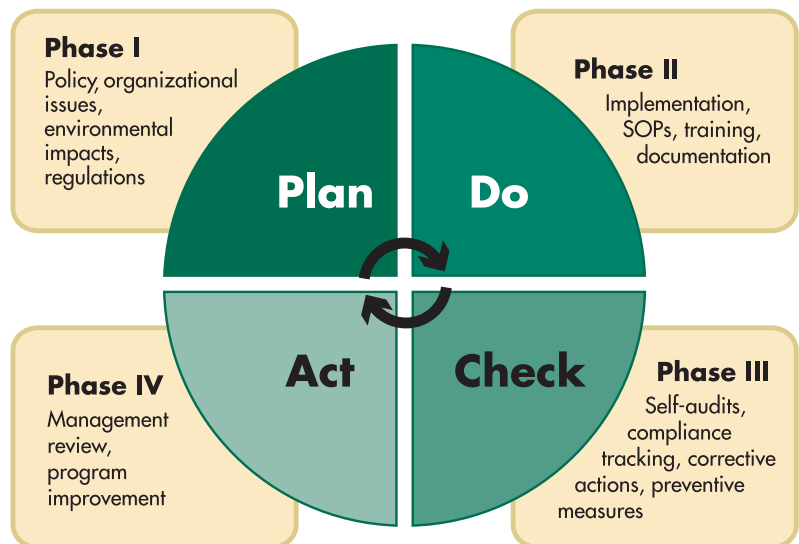
What is a Continual Improvement System?

Continual Improvement Systems (CIS) are programs that help agencies or businesses make on-going improvements in processes, product quality, and management. Each system is unique but all have a common framework of “plan, do, check, act” that is repeated continuously to drive improvements. Some common CIS programs include: Balanced Scorecard; Asset Management; ISO Environmental Management System (EMS); National Biosolids Partnership (NBP) EMS; Capacity, Management, Operation and Maintenance Programs (CMOM); and APWA Management Accreditation Program. Each system is typically focused on performance in one area such as environmental impact, process/product quality, or financial performance. CIS frameworks are different from traditional utility management because of the development of measurable objectives and targets, the requirement for standardized operating procedures, and the continuous measurement and monitoring of the program that is used to inform management and develop goals to further improve the program.

Why do agencies invest in a CIS?

These systems come with a cost, both in actual dollars and in the time staff must commit to developing and implementing a new program. So why have agencies invested in them?

- **Infrastructure needs vs. funding availability.** Many utilities have aging infrastructure that is in need of major repairs or replacement, while simultaneously facing a shortage of funding sources for capital projects. CIS programs can help a manager do more with less.
- **Regulatory requirements.** As regulations increase in number and complexity, managers and staff often find themselves wading through a maze of regulatory requirements. CIS programs offer a structured approach to dealing with new and potential regulations.
- **Public perception.** The public is more environmentally aware than ever, and has high expectations for service and environmental performance. CIS programs can increase transparency and address public concerns over environmental and public health.



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- **Resource efficiency.** Many utilities are facing increasing pressure to demonstrate efficiency and value in their biosolids management program. A CIS can identify waste within processes and help managers capture efficiencies to control costs and demonstrate performance.
- **Workforce transition.** As veteran employees retire, many utilities are losing a significant amount of internal knowledge. CIS programs can help smooth the transition within the workforce by creating documentation and standard operating procedures.

Where to find more information?

The chart below summarizes some of the CIS programs in place among NBMA members. Use this chart to identify potential topics that can be improved in your biosolids program. Then refer to the appropriate system and agency for guidance and information. You don't have to implement the entire system to experience benefits.

Primary Topics Addressed by NBP & ISO Environmental Management Systems	
Create, update & track policy	Prepare emergency response plans
Identify and comply with applicable legal requirements	Maintain monitoring, testing & inspection schedules
Establish & monitor progress towards goals & objectives	Develop SOPs for all critical operations
Contact & involve public in planning	Establish document & record management
Provide adequate training to all employees	Create corrective & preventive plans for problem areas
Implement effective internal/external communications	Track & report your performance

NBP EMS agencies: Albany, Clackamas County, King County

ISO EMS agencies: Eugene, Nanaimo

Primary Topics Addressed by Quality Improvement Program	
Process improvement	Team building
Problem solving	Improved communications

QIP agency: Three Rivers

To contact an agency see NBMA website or CIS Committee Chairs

Additional resources: www.epa.gov/ems/index; www.biosolids.org/primer; www.brecker.com/quality.htm;

www.iedex.com.au/essentials/html/quality.html; www.peercenter.net; www.cmom.net