Driving Environmental Accountability Without Direct Authority

Leading Through Influence, Ownership, and Organizational Alignment



Myrna Pacheco • Senior Environmental Engineer • Master of Legal Studies

The Reality of Environmental Leadership.

Environmental professionals are accountable for outcomes they do not directly control.

- Deliver compliance
- Reduce risk
- Improve sustainability performance
- Support/create corporate goals
- Control production schedules
- Supervise maintenance teams
- Purchase materials
- Manage most operators

Why Environmental Knowledge Alone Is Not Enough



- **Technical Expertise Identifies the Risk. Leadership Changes the Outcome.**
- **The most critical skill today is leadership and influence.**

1 United States

Complex federal, state, local, municipal, tribal, and permit-specific layers.

2 Germany

Strong legal structure with frequent emphasis on efficiency, waste prevention, energy, and lifecycle.

3 Mexico

Federal, state, and municipal responsibilities shaped by local infrastructure and resources.

The most successful environmental programs are rarely built through authority.

Environmental Problems Rarely Begin in Environmental Department

Environmental issues are cross-functional

1. **Wastewater**



2. **Spill prevention**



3. **Air compliance**



4. **Hazardous waste**



Environmental Data Often Tells the Story of the Entire Operation.

1. Unstable process
2. Poor material control
3. Preventive-maintenance gap
4. Weak shutdown communication
5. Incomplete management of change

One operating system

Environmental issues often reveal a common weakness in process control, reliability, ownership, or communication.



Environmental Metrics Reveal Operational Problems

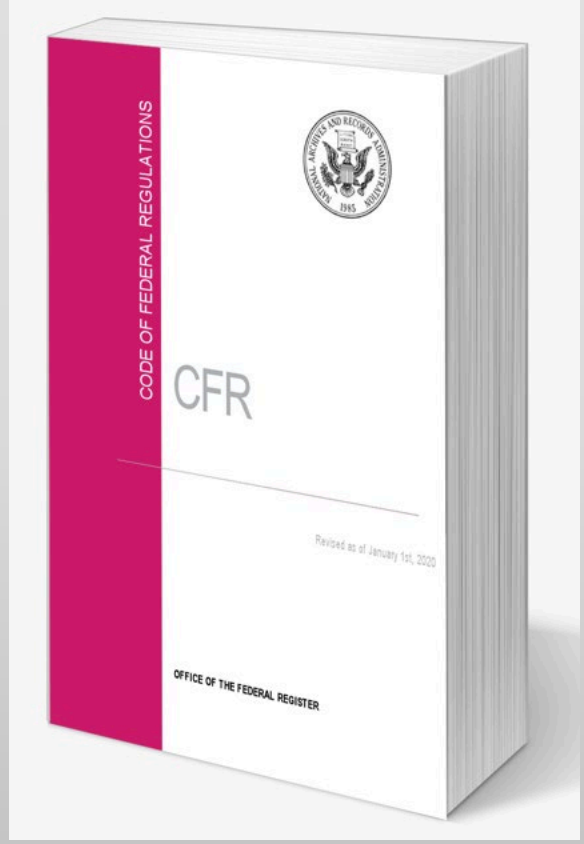
Environmental Data Often Tells the Story of the Entire Operation.

- Production
- Engineering
- Maintenance
- Procurement
- Project management
- Training
- Leadership
- Finance

Because once we recognize where a problem truly begins, we recognize who must be involved in the solution.

Compliance Is the Starting Line, Not the Finish Line

Environmental regulations are often treated as the finish line.
In reality, they should be the starting point.



Compliance Prevents Failure. Improvement Creates Advantage.

Regulations Create Diagnostic Observation Points

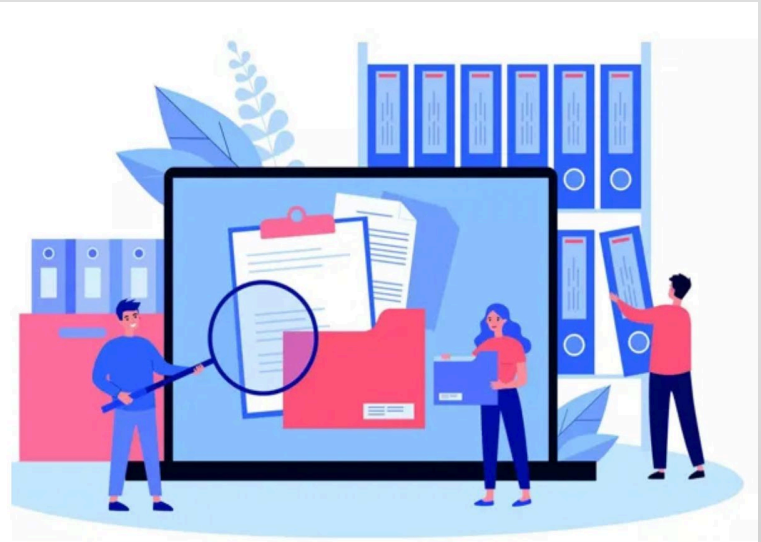


A compliance requirement can be both evidence of control and a signal of process health.



The Hidden Value of Environmental Data

Air inventory	———	Why is solvent use or fuel intensity rising?
Water balance	———	Where is unexplained water going?
Waste	———	Why does the waste exist?
Stormwater inspection	———	What operational weakness caused exposure?
Spill report	———	Which reliability or design control failed?
Audit finding	———	Is missing evidence a symptom of weak ownership?



Every Waste Stream Has a Story About the Process That Created It.

The Hidden Value of Environmental Data

Mini-Case 1 — The Manifest Became a Process Indicator

1 Trigger

Hazardous-waste characterization and manifesting

2 Clue

Monthly volume varied while production stayed stable

3 Cause

Shift-to-shift cleaning practices and unnecessary changeovers

4 Action

Standardize, meter, sequence, train, evaluate substitution

5 Value

Less waste, solvent, cleaning time, exposure, and cost

Mini-Case 2 — Wastewater Told the Story of Lost Product

1 Regulatory signal

Pollutant loading trends upward while the facility remains within its limit.

2 Operational cause

A transfer valve does not seal consistently; raw material enters the floor-drain system.

3 Integrated value

Repair, preventive maintenance, visual indication, pre-start inspection, secondary capture.

Assigning a Task Is Not the Same as Creating Ownership. Why Accountability Fails?

Responsibility answers:

"Who performs the work?"

Ownership answers:

"Who ensures the result?"



Without clear ownership, environmental requirements become viewed as somebody else's problem.

And once something becomes somebody else's problem, accountability disappears.

Build a Clear Line From Obligation to Result.

If Ownership Is Unclear on Paper, It Will Be Unclear Under Pressure.

Accountability Matrix.

Permit/Plan/ Standard	Permit Section	EMS ISO-14001	Internal Standard #	Activity Description	Document name	Documentation Location 2026	Method to Comply	Permit Type	Permit Category	Permit Number	Person / Area Responsible	Information provider	Frequency	Internal Standard #	Tracking method	Notes
AIR																
Title - V	40 CFR Part X , 2.1.X.x, General condition X	X	#	Review/ Conduct/ Submit/ Collect	X	Internal drive location/ Cloud location/ Physical location	Inspect/ Review/ Perform/ Test	General Permit/ Minor/ Title V	Air	XXXXX	X	X	NA/ Monthly/ Annually/ Semiannual	#	Software or system name	
WASTE MANAGEMENT & RCRA																
RCRA	40 CFR Part X , 2.1.X.x, General condition X	X	#	Review/ Conduct/ Submit/ Collect	X	Internal drive location/ Cloud location/ Physical location	Inspect/ Review/ Perform/ Test	X	Waste	XXXXX	X	X	NA/ Monthly/ Annually/ Semiannual	#	Software or system name	
STORM WATER																
SWPPP	40 CFR Part X , 2.1.X.x, General condition X	X	#	Review/ Conduct/ Submit/ Collect	X	Internal drive location/ Cloud location/ Physical location	Inspect/ Review/ Perform/ Test	General Permit	Water	XXXXX	X	X	NA/ Monthly/ Annually/ Semiannual	#	Software or system name	
WASTE WATER																
POTW	40 CFR Part X , 2.1.X.x, General condition X	X	#	Review/ Conduct/ Submit/ Collect	X	Internal drive location/ Cloud location/ Physical location	Inspect/ Review/ Perform/ Test	Permit	Water	XXXXX	X	X	NA/ Monthly/ Annually/ Semiannual	#	Software or system name	
SPILL, PREVENTION, CONTROL AND COUNTERMEASURE (SPCC)																
SPCC	40 CFR Part X , 2.1.X.x, General condition X	X	#	Review/ Conduct/ Submit/ Collect	X	Internal drive location/ Cloud location/ Physical location	Inspect/ Review/ Perform/ Test	Permit		XXXXX	X	X	NA/ Monthly/ Annually/ Semiannual	#	Software or system name	
EPCRA																
EPCRA	40 CFR Part X , 2.1.X.x, General condition X	X	#	Review/ Conduct/ Submit/ Collect	X	Internal drive location/ Cloud location/ Physical location	Inspect/ Review/ Perform/ Test			XXXXX	X	X	NA/ Monthly/ Annually/ Semiannual	#	Software or system name	
NON-REGULATORY																
Outreach program	40 CFR Part X , 2.1.X.x, General condition X	X	#	Review/ Conduct/ Submit/ Collect	X	Internal drive location/ Cloud location/ Physical location	Inspect/ Review/ Perform/ Test			XXXXX	X	X	NA/ Monthly/ Annually/ Semiannual	#	Software or system name	
CORPORATE																
Biodiversity	40 CFR Part X , 2.1.X.x, General condition X	X	#	Review/ Conduct/ Submit/ Collect	X	Internal drive location/ Cloud location/ Physical location	Inspect/ Review/ Perform/ Test			XXXXX	X	X	NA/ Monthly/ Annually/ Semiannual	#	Software or system name	
Habitat	40 CFR Part X , 2.1.X.x, General condition X	X	#	Review/ Conduct/ Submit/ Collect	X	Internal drive location/ Cloud location/ Physical location	Inspect/ Review/ Perform/ Test			XXXXX	X	X	NA/ Monthly/ Annually/ Semiannual	#	Software or system name	
ISO 14001	Section X.X	X	#	Review/ Conduct/ Submit/ Collect	X	Internal drive location/ Cloud location/ Physical location	Inspect/ Review/ Perform/ Test			XXXXX	X	X	NA/ Monthly/ Annually/ Semiannual	#	Software or system name	

When ownership becomes visible, accountability becomes possible

Making Accountability Visible – Example Air Permit

1 Operations

Owns proper process execution

2 Maintenance

Owns equipment reliability.

3 Engineering

Owns system design.

4 Management

Owns resources and priorities.

Environmental performance becomes stronger when every function understands its role.

Why Regulations Alone Do Not Change Behavior.

People support:

- **What they understand**



- **What helps their objectives**



- **What improves their success**



Regulations Establish the Requirement. Influence Changes the Behavior

Translate Environmental Risk Into Decisions to Can Act On.

Speak the language of business

1 Executives

Risk, continuity, capital, growth, resilience

2 Operations

Yield, reliability, downtime, standard work

3 Employees

Specific action, trigger, contact, reason, stop-work

Decision-oriented message

Our wastewater loading has increased for four consecutive months. We remain within our current limit, but the trend may constrain future production growth and increase treatment cost. We recommend a process investigation and a targeted capital evaluation.

Instead of :
The latest sample was 146 milligrams per liter.

Translate the Same Data for Different Decisions

Using Data to Create Accountability

Metrics linked to actions

1. **Waste**
   $/ton • quantity/unit • contamination • avoided cost
2. **Water**
   use/process • loading/unit • capacity • trend
3. **Air / Energy**
   VOC/unit • fuel/unit • control performance
4. **Incidents**
   frequency • severity • repeat cause • closure
5. **Governance**
   obligations on time • competence • data quality

Environmental professionals have access to a large amount of business intelligence



Environmental Metrics to trigger a management discussion.

1. What operational decision uses this information?
2. Who outside Environmental reviews the trend?
3. What appears when the data is normalized by activity?

Accountability grows when people understand what the data means for their operations.

Influence Is Built in Stages—and Proven Through Results.

Building Relationships Across the Organization



Trust is one of the most powerful environmental controls available.

- The best environmental professionals are not viewed as compliance police.
- They are viewed as trusted advisors.
- When employees trust us, they contact us before making decisions.
- When leaders trust us, environmental considerations become integrated into planning.
- When teams trust us, accountability grows naturally.

Turn Every Environmental Obligation Into a Repeatable Operating Process.

1. Know the Obligation

Define what is legally and organizationally required.

- Applicable regulations, permits, plans, commitments
- Trigger, frequency, owner, evidence, change assumptions
- Distinguish legal requirement from corporate standard

2. Understand the Process

Learn what physically happens—including abnormal conditions.

- Walk the process; talk with operators and maintenance
- Trace material, drains, valves, pumps, tanks, controls
- Observe startup, shutdown, cleaning, changeover, night shift

3. Identify the Loss or Risk

Use the requirement to expose inefficiency or vulnerability.

- Why is waste generated or loading increasing?
- Where are material, water, energy, time, or capacity lost?
- Which recurring finding indicates a systemic problem?

Turn Every Environmental Obligation Into a Repeatable Operating Process.

4. Prevent or Reduce the Loss

Control the issue at the highest practical level.

- Eliminate or substitute where feasible
- Engineer, automate, maintain, standardize, train
- Check for transfer of risk across media, safety, quality

5. Measure the Improvement

Verify the result and unintended consequences.

- Establish baseline and meaningful metric
- Normalize only when process behavior supports it
- Confirm compliance, safety, quality, cost, and risk

6. Sustain the Result

Prevent regression when people, demand, or conditions change.

- Update procedure, training, PM, purchasing, permit review
- Embed in standard work and management review
- Ensure the result survives personnel changes

The Best Accountability Systems Surface Problems Early.

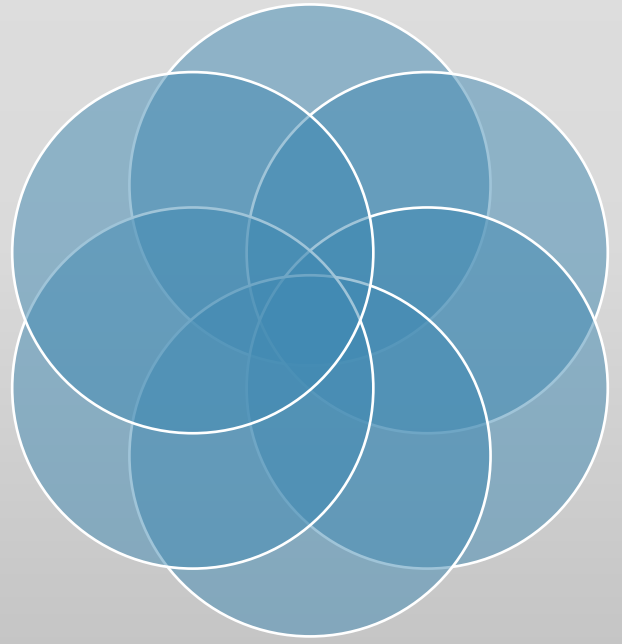
1. Organizations improve when people feel safe reporting problems.
2. Accountability is ownership.
3. People should feel comfortable escalating concerns.
4. The sooner an issue becomes visible, the more options we have.

One of the greatest indicators of a strong environmental culture is how quickly employees report problems.

Environmental Leadership Connects the Dots Others May Not See.

Continuous Improvement

Regulations



Data

Risks

Sustainability

Operations

CONNECTION



"Environmental accountability is not created through authority. It is created through influence, trust, and ownership."

THANK YOU!