

# LEAN ON US...®

expertise for today's manufacturers



Civil & Environmental Consultants, Inc.

# THE CEC ADVANTAGE

*What sets CEC apart is that we put ourselves in our clients' shoes and make recommendations from their strategic vantage point. These are the real differentiators:*

## CRADLE TO GRAVE SERVICES

With multiple disciplines in-house, CEC is able to work with manufacturers at every stage of an operation's lifecycle—from site selection to decommissioning—creating an opportunity to build in-depth knowledge of the operation and a long-term commitment to client success.

## ASSET AND INFORMATION MANAGEMENT

Integrating web and mobile applications creates a centralized, streamlined method for collecting, organizing, maintaining, and reporting on large, even massive data sets. Information on environmental status, health and safety programs, and infrastructure is easily accessible by multiple users through a single user interface, and updates occur universally and in real time.

## DIRECT INDUSTRY EXPERIENCE

CEC understands the manufacturing business from the inside and can complement a facility's existing staff. Having previously worked for the owner's side, senior consultants combine past experience and established regulatory relationships with strong technical knowledge to tailor CEC resources to best serve project and client needs.

## COST-EFFECTIVE SOLUTIONS

Today's manufacturers face cost pressures at every step of an operation. With a focus on advancing client interests, while also considering agency objectives, CEC has developed innovative approaches to corrective actions that not only obtained regulatory approval but also saved clients millions of dollars.



**1:** Engineering and design of an overall water recycle system for this seamless steel pipe manufacturer in Youngstown, Ohio, included these final strainers to supply clean water for contact and non-contact cooling.

**2:** Facility inspections and updated SPCC plans for 8 can plants and 5 agricultural facilities across the Midwest for a major beverage manufacturer.

**3:** Environmental services at facilities in Ohio, New York, North Carolina, and Washington for a leading plastic product manufacturer of a broad range of thermoplastics and high-performance materials.



# COMPLIANCE AND OPERATIONS SUPPORT

## MAINTAINING OPERATIONS AND COMPLIANCE

CEC actively monitors the complex and changing regulatory environment to support manufacturers as they record, report, and retain compliance and maintenance standards. Upstream and downstream links in your supply chain may require conformance with ISO or other industry specifications while internal policies and procedures are met. CEC can take on the paperwork, enabling businesses to focus on producing goods profitably and efficiently.

Evolving requirements and BMPs prompt operators to implement modifications and controls. CEC solutions reduce risk, maintain compliance, and facilitate continued operations. CEC water resources professionals provide turnkey industrial wastewater treatment and compliance services and also determine appropriate technologies by conducting bench- and pilot-scale tests in-house or on site.

## ENABLING NEW OR EXPANDED OPERATIONS

When demand dictates that operations must grow, or when improvements in processes and technologies require new equipment and renovations, CEC assists with site development and facility expansions by providing site selection and characterization, cost-effective designs, permitting, and construction-related services. Geotechnical engineers evaluate the feasibility of supporting heavy equipment by investigating soil and bedrock characteristics.

CEC analyzes incoming water quality and the performance characteristics of facility equipment to develop water treatment processes that ensure the precise water quality required for a range of processes and applications. As water resources become increasingly stressed, CEC examines the inlet and outlet balance of the entire facility to develop tailored incoming water treatment and recycling programs.



**1:** Assistance with Title V air permitting and compliance, as well as water and waste compliance at this steel plant in Michigan serving the automotive, construction, and appliance markets.

**2:** Assistance with implementation of a RCRA Corrective Action program at a 590-acre West Virginia coke-making facility with a capacity exceeding one million tons each year.

**3:** Volumetric flow, moisture, and volatile organic compounds are being ducted to the inlet of the regenerative thermal oxidizer control device as part of stationary source sampling at 8 interior locations within this South Carolina plant.



# FACILITY AND ASSET MANAGEMENT SUPPORT

## STRENGTHENING REAL ESTATE PORTFOLIOS

CEC understands the connection between the manufacturing industry and brownfield redevelopment and its impact on local economies. Corporate facility and asset managers and real estate portfolio managers rely on CEC's ability to navigate zoning, geotechnical, logistical, and regulatory criteria for the development and management of brownfield sites, in addition to existing or greenfield sites.

Due diligence, site selection, environmental assessments, and engineering services support strategic property acquisitions, as well as the ongoing management of property assets, including disposition and decommissioning. CEC has performed environmental assessments for multiple facilities as part of corporate acquisitions/divestitures, investments, or financing applications.

## TRANSITIONING TO CLOSURE

If the time comes to cease operations or demolish a facility, CEC will assess the nature and extent of contamination and recommend either containing it or remediating the impaired site to commercial and industrial standards, reducing legacy liabilities. CEC has in-depth experience in each phase of site rehabilitation and demolition and works with clients to remediate and rehabilitate active production or idle legacy sites.

Projects begin with developing a concrete understanding of client objectives and designing the best strategy to achieve client goals within the limits of governing regulatory programs. CEC site planners and civil engineers evaluate options to achieve the highest and best use possible for assets, even encouraging repurposing facilities and recommending potential alternative uses to generate revenue.



**1:** At this southwestern Pennsylvania float glass manufacturing plant, CEC prepared E&S control and earth disturbance permit applications for site development activities surrounding construction of a selective catalytic reduction system.

**2:** One of two sludge dewatering filter presses that produce a material suitable for reuse in steelmaking. The presses are the terminal treatment elements of an overall water recycle system at a steel mill in Ohio.

**3:** Site engineering design plans for a new 52,000-square-foot metal giffware manufacturing facility in western Pennsylvania including retail store space, production, office areas, and associated parking.



**Manufacturers often face challenges as diverse as the industry itself: pricing pressures and global competition, business complexities, and delivery of product to market and customer.**

To stay focused on the primary objectives of production efficiency and increasing market share, manufacturers need a partner with expertise in a complete scope of engineering and environmental services to assist with challenges ranging from selecting or acquiring a new site for development to maintaining compliance in today's regulatory environment.

CEC starts with a commitment to understanding the specific needs of manufacturers and then applies sound science and practical engineering to help clients successfully acquire, develop, operate, and manage their facility assets. Using a multidisciplinary approach, CEC has developed an extensive portfolio of industrial real estate and facility-related expertise.

## **CEC OVERVIEW**

*Civil & Environmental Consultants, Inc. (CEC) provides comprehensive market-oriented consulting services that advance the strategic business objectives of our clients. CEC is recognized for its innovative design solutions and integrated expertise in air quality, civil engineering, ecological sciences, environmental engineering and sciences, manufacturing infrastructure services, survey/geospatial, waste management, and water resources.*

*Our Manufacturing Market Group is a diverse team of engineers, scientists, and professionals who serve as our conduit to the latest thinking and advancements in the manufacturing industry, providing clients with concise, timely information and regulatory updates to facilitate informed decision-making.*



## AIR

Air Emissions Testing  
Construction and Operational Air Permitting  
Perimeter Ambient Air Monitoring  
Dispersion Modeling  
Odor Evaluations  
New Source Review/Prevention of Significant Deterioration Analyses  
Emission Inventories and Characterization  
Fugitive Emissions Studies and Control Programs

## ENGINEERING/SITE DEVELOPMENT

ALTA/NSPS Surveys  
Land Planning and Site Evaluations  
Geotechnical Analyses  
Cadastral (Land Title) and Mortgage Surveys  
Landscape Architecture and Master Planning  
Sustainable Landscape/Infrastructure Planning  
Regulatory and Land Development Permitting  
Erosion and Sedimentation Control  
Subsurface Investigation, Testing, and Stabilization  
Foundation Analysis and Design  
Slope Stabilization and Retaining Wall Design  
Green (Vegetated) Roof Design  
Structural Condition Assessment and Design  
Construction QA/QC Monitoring and Inspections  
International Building Code (IBC) Special Inspections  
Building System Analysis and Maintenance Design  
LEED® Preliminary Assessment and Existing Building O&M  
Parking Lot/Pavement Analysis, Maintenance, and Rehabilitation

## ENVIRONMENTAL HEALTH & SAFETY

Phase I & II Environmental Assessments  
Environmental Liability Cost Estimates  
Operational Compliance Evaluations and Liability Cost Estimates  
Human Health and Ecological Risk Assessments  
Property Condition Assessments (PCAs)  
Health & Safety Plan Preparation  
Remedial Design and Implementation  
Environmental Compliance Audits and Regulatory Reporting  
ISO 14001 Audits  
Groundwater Assessment, Monitoring, Remediation, and Modeling  
RCRA, CERCLA, and State Voluntary Program Implementation  
Site Characterization  
Spill Prevention Control and Countermeasures (SPCC) Plans  
Transformer Inspections  
Hazardous Chemical Inventory and Toxic Chemical Release Inventory Reporting

## WASTE MANAGEMENT

Waste Characterization, Management, and Reporting  
Hazardous and Regulated Material Surveys and Management  
Universal Waste Surveys and Management  
On-site Waste Disposal Facility Design and Permitting  
Facility Construction Management and Quality Assurance  
Facility Decommissioning and Demolition Planning and Permitting  
Storage Tank Inspections, Design, and Installation

## WATER/WASTEWATER

Stormwater Management/BMP Design  
Stormwater Pollution Prevention Plans (SWPPP)  
NPDES Design and Permitting  
Water and Wastewater Permitting  
Water and Wastewater Treatment Design  
Water Treatment System Installation  
Industrial Process and Wastewater Treatment Technologies  
Treatment System Evaluation, Selection, and Specification  
Treatability Testing

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