



CHEMONICS EGYPT



# INDUSTRIAL POLLUTION PREVENTION AND CONTROL

## CORPORATE EXPERIENCE

PROJECTS FACT SHEETS



PROJECT NAME	<b>Environmental Impact Assessment for Awadalla Lead Smelters</b>
PROJECT LOCATION	Sharqiya Governorate
CLIENT	Awadalla
PRIME CONSULTANT	Chemonics Egypt
PROJECT DURATION	August - November 1997
REQUIRED EXPERTISE	<b>Environmental Management:</b> environmental impact assessment (EIA), air pollution, hazardous wastes and land use
PROJECT DESCRIPTION	Chemonics Egypt prepared an environmental impact assessment (EIA) for an area in Sharqiya Governorate proposed as a new location for five lead smelters. The smelters, previously located in urban Cairo, were relocated as part of an effort to reduce air pollution. The EIA examined the possible impacts from relocation of these smelters and recommended any necessary mitigating actions.

PROJECT NAME	<b>Cleaner Production and the Egyptian Food Industry Evaluation Report</b>
PROJECT LOCATION	Throughout Egypt
CLIENT	ENTEC – Support for Environmental Assessment and Management (SEAM) Project
PRIME CONSULTANT	Chemonics Egypt
PROJECT DURATION	December 1998 – January 1999
REQUIRED EXPERTISE	<b>Environmental Management:</b> industrial process description, pollution problem identification
PROJECT DESCRIPTION	Chemonics Egypt provided assistance in the preparation of an evaluation report about food industry production processes and a description of cleaner production initiatives in view of the problems associated with wastewater, solid waste, air emissions, occupational health and safety as well as food quality.

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PROJECT NAME	<b>Water and Energy Conservation</b>
PROJECT LOCATION	Kaha (Qalubiya) and Ras el Souda (Alexandria)
CLIENT	Entec
PRIME CONSULTANT	Chemonics Egypt
PROJECT DURATION	March 1998 - April 1999
REQUIRED EXPERTISE	<b>Environmental Management:</b> water and energy conservation
PROJECT DESCRIPTION	This project involved identifying low cost/no cost measures for water and energy conservation for the Edfina factory in Alexandria, and energy conservation measures for the Kaha factory in Qalubiya. Chemonics Egypt also prepared a bill of quantities for the identified conservation opportunities and supervised their implementation. Monitoring was then performed to estimate the cost savings and calculate the payback period for each conservation measure.

PROJECT NAME	<b>Support for Environmental Assessment and Management (SEAM) Project</b>
PROJECT LOCATION	Kaha and Edfina, Egypt
CLIENT	ENTEC - Egypt
PRIME CONSULTANT	Chemonics Egypt
PROJECT DURATION	March 1998 – July 1998
REQUIRED EXPERTISE	<b>Environmental Management:</b> water and energy conservation
PROJECT DESCRIPTION	<p>Two factories were surveyed and improvement alternatives were proposed. Alternatives were analyzed based on perceived effectiveness and duration of “payback” time.</p> <p>The following improvements were suggested:</p> <ul style="list-style-type: none"> <li>• Thermal insulation</li> <li>• Reuse of condensation</li> <li>• Regulation of steam flow</li> <li>• Temperature control</li> <li>• Fuel or air ratio adjustments</li> <li>• Cooling system design</li> <li>• Efficient water usage</li> </ul>

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PROJECT NAME	<b>Industrial Environmental Inspection Guidelines – Phase 2</b>
PROJECT LOCATION	Throughout Egypt
CLIENT	EEAA – Egyptian Pollution Abatement Project (EPAP)
PRIME CONSULTANT	Chemonics Egypt
PROJECT DURATION	June 1998
REQUIRED EXPERTISE	<b>Environmental Management:</b> inspection guidelines
PROJECT DESCRIPTION	<p>Chemonics Egypt provided the following services:</p> <ul style="list-style-type: none"> <li>• Prepared industrial environmental inspection guidelines.</li> <li>• Organized a workshop on the inspection guidelines</li> <li>• Developed training courses for inspectors</li> <li>• Conducted field visits to several factories</li> </ul>

PROJECT NAME	<b>Field Test and Finalization of Industrial Environmental Inspection Guidelines</b>
PROJECT LOCATION	Cairo
CLIENT	EEAA/EPAP and FINNIDA
PRIME CONSULTANT	Chemonics Egypt
PROJECT DURATION	April - May 1999
REQUIRED EXPERTISE	<b>Environmental Management:</b> survey and evaluation of capacity and sustainability of water and sanitation projects
PROJECT DESCRIPTION	<p>For this project, Chemonics Egypt tested the methodology and procedures proposed in the EEAA's Environmental Inspection Guidelines. This involved 48 inspectors representing four governorates (Cairo, Giza, Qalubiya and Fayoum) and five consultants acting as trainers to the inspection process.</p> <p>Each inspection team was assigned to inspect three factories operating in the food, engineering and chemical sectors. The inspection process involved a two-day workshop for preparing the inspection plan and checklists tailored to the specific plant under the supervision of Chemonics Egypt consultants. This was followed by two visits to each factory and a reporting workshop.</p> <p>The field tests proved the proposed inspection process to be satisfactory.</p>

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PROJECT NAME	<b>Pre-Screening/Project Identification for the Facility for Financing Environmental Protection in the Public Sector Industry</b>
PROJECT LOCATION	Throughout Egypt
CLIENT	Kreditanstalt für Wiederaufbau (KfW) representing the EEAA
SOURCE OF FUNDING	KfW
PRIMARY FIRM	Chemonics Egypt
ASSOCIATED FIRMS	Dorsch Consult G.U.B. Consult National Research Center of Egypt Four Egyptian laboratories
ULTIMATE BENEFICIARY	Holding companies for the food, chemical, engineering and pharmaceutical industries
PROJECT DURATION	July 1996 - October 1996, January 1997 - April 1997
REQUIRED EXPERTISE	<b>Environmental Management:</b> industrial wastewater sampling and analysis, conceptual process design, wastewater minimization and treatment processes, industrial processes
PROJECT DESCRIPTION	<p>As part of a German-Egyptian financial cooperation project, funds are available for improving wastewater treatment and minimization at public sector factories in the food, pharmaceutical, chemical, and engineering industries. This phase of the Facility involved the pre-screening of public factories in these four sectors to determine a list of priority recipients.</p> <p>Chemonics Egypt and affiliates performed the following steps to pre-screen factories:</p> <ul style="list-style-type: none"> <li>• Collected existing data about factories</li> <li>• Developed a preliminary “short list” based on collected data and discussions with EEAA</li> <li>• Collected on-site data, including wastewater effluent samples, for factories on short list</li> <li>• Prepared individual factory reports and proposed potential projects to minimize or treat wastes</li> <li>• Prioritized projects within each sector according to criteria agreed upon with EEAA</li> <li>• Prepared final reports, by sector, that described factories visited and the projects identified for each</li> </ul> <p>The initial pre-screening involved site visits to 114 short-listed factories. A total of 172 projects were identified and prioritized for these factories (some factories had no projects proposed, while others had multiple proposals). An additional 40 factories were pre-screened as an add-on to the contract, bringing the total to 154 factories. Many of the companies represented by these factories have expressed interest in obtaining financing for implementing these pollution prevention and industrial wastewater treatment projects.</p>

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PROJECT NAME	<b>Facility for Financing Environmental Protection in the Public Sector Industry</b>
CLIENT	Kreditanstalt für Wiederaufbau (KfW) representing the Egyptian Environmental Affairs Agency (EEAA)
SOURCE OF FUNDING	KfW
PRIMARY FIRM	Dorsch Consult
SECONDARY FIRMS	Chemonics Egypt G.U.B. Consult
ULTIMATE BENEFICIARY	Holding Companies for Food, Chemical, Engineering and Pharmaceutical Industries
PROJECT DURATION	July 1997 - June 2000
REQUIRED EXPERTISE	<b>Environmental Management:</b> technical feasibility of wastewater treatment and prevention projects, technical reviews of proposals for project funding, terms of reference and tendering for special technical studies, assistance in tendering and contracting, construction inspection and quality assurance
PROJECT DESCRIPTION	<p>The first phase of the KfW-funded project to implement the Egyptian-German Environmental Facility involved the pre-screening of public sector factories in the chemical, engineering, food and pharmaceutical industries. As the prime contractor for this phase, Chemonics Egypt visited over 150 factories and provided preliminary proposals for wastewater treatment and pollution prevention projects.</p> <p>During the second phase, Chemonics Egypt is assisting Dorsch Consult and other firms in helping eligible factories/companies obtain the financing needed to implement the proposed projects. For projects that are deemed eligible (from a financial, economic and technical standpoint), financing will be available through a combination of grants (up to 50 percent of project cost) and loans from participating Egyptian banks.</p> <p>Chemonics advisors help review all technical project documents to determine completeness, accuracy and feasibility. For projects requiring additional study to determine feasibility, advisors may be required to prepare terms of reference for studies to be made by outside contractors. Additional assistance to eligible companies may be required during the tendering of projects, evaluation of tenders, and to assure quality of construction and implementation.</p>

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PROJECT NAME	<b>Cairo Air Improvement Project</b>
PROJECT LOCATION	Greater Cairo
CLIENT	USAID
PRIME CONSULTANT	Chemonics International
SECONDARY CONSULTANTS	Chemonics Egypt CH2M Hill International Stone & Webster Engineering Corporation Envirotest Systems Engine, Fuel and Emissions Engineering, Inc. Social Planning, Analysis & Administration Consultants
ASSOCIATES	Charles Licht Engineering Associates, Inc. Environomics, Inc. Industrial Economics, Inc. Argonne National Laboratory The Desert Research Institute West Virginia University
PROJECT DURATION	1997 - 2002; possible 2-year extension
REQUIRED EXPERTISE	<b>Environmental Management:</b> air pollution mitigation, air quality, vehicle emissions testing and standards, compressed natural gas as fuel, lead pollution <b>Institutional Development:</b> public awareness, commodity procurement
PROJECT DESCRIPTION	<p>Air pollution has been identified as a major threat to public health in Cairo. This \$50 million, five-year project is a pioneering effort to introduce pilot activities and new, clean technologies to prevent and mitigate air emissions while addressing the institutional, technical, financial, and policy constraints. The project has five specific objectives:</p> <ul style="list-style-type: none"> <li>• Vehicle emissions testing</li> <li>• Expansion of the use of compressed natural gas as fuel for fleets and public transport</li> <li>• Reduction of lead pollution</li> <li>• Air quality monitoring to establish benchmarks and measure improvement</li> <li>• Public awareness campaign to increase public understanding of Cairo's air quality problems and build support for project activities</li> </ul> <p>As a major local subcontractor, Chemonics Egypt plays a significant role in this project, providing local expertise, management skills, and administrative and other support.</p>

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PROJECT NAME	<b>Audit of Kafr el-Zayat Pesticides and Chemicals Company for Compliance with Environmental and Occupational Hygiene Regulations</b>
PROJECT LOCATION	Kafr el-Zayat City
SOURCE OF FUNDING	Partnership in Development Project (USAID: GOE Public Enterprise Office)
CONTRACTED BY	Overseas Bechtel International
PROJECT DURATION	February - April 1995
REQUIRED EXPERTISE	<b>Environmental Management:</b> industrial wastewater pollution, occupational health and safety, compliance audits
PROJECT DESCRIPTION	<p>The Kafr el-Zayat Pesticides and Chemicals Company was one of a number of public sector enterprises considered as a candidate for privatization by the GOE Public Enterprise Office (assisted by the USAID Partnership in Development Project). Chemonics Egypt conducted an audit to determine if this company was in compliance with GOE environmental and occupational safety and health (OSH) regulations. This audit report was a chapter in the overall company valuation and clarified the environmental and OSH liabilities that would be incurred by prospective buyers.</p> <p>Chemonics Egypt performed the following activities in conjunction with this project:</p> <ul style="list-style-type: none"> <li>• Reviewed GOE environmental and OSH regulations</li> <li>• Visited the company's four facilities and described the industrial processes and working conditions</li> <li>• Described and evaluated company environmental and OSH management controls and compliance</li> <li>• Described areas of noncompliance and identified generic remedial measures</li> </ul>

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PROJECT NAME	<b>Emissions Control for Lead Smelting Industries</b>
PROJECT LOCATION	10th of Ramadan City
CLIENT	General Organization for Industrialization (GOFI)
CONTRACTED BY	GOFI
PROJECT DURATION	December 1993 - June 1994
REQUIRED EXPERTISE	<b>Environmental Management:</b> air pollution reduction
PROJECT DESCRIPTION	Performed studies and detailed designs for prototype emissions reduction equipment for lead smelting factories. The scope of the project included the conceptual design, detailed design, and supervision of local manufacture, installation, commissioning, and evaluation of the prototype.

PROJECT NAME	<b>Environmental Compliance Plan for 6th of October Factory for Light Section (SOLS)</b>
PROJECT LOCATION	6th of October City
CLIENT	SOLS
PRIME CONSULTANT	Chemonics Egypt
PROJECT DURATION	November – December 1997
REQUIRED EXPERTISE	<b>Environmental Management:</b> environmental auditing and compliance abatement
PROJECT DESCRIPTION	The project main goals were the identification of facility potentials for violation of Egyptian environmental regulations, and selection and planning of least-cost measures to bring the facility into compliance with these regulations.
DESCRIPTION OF PROVIDED SERVICES	<p>Chemonics Egypt provided the following services:</p> <ul style="list-style-type: none"> <li>• Orientation meetings for company and plant managers</li> <li>• Survey of significant pollutants stored, used, or produced by the facility</li> <li>• Review and mapping of industrial processes, waste emissions, and discharge points</li> <li>• Identification of occupational safety and health hazards</li> <li>• Identification of potentials for emissions reduction</li> <li>• Identification of appropriate waste treatment technologies</li> <li>• Preparation of action plan for environmental compliance</li> </ul>

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PROJECT NAME	<b>Environmental Compliance Plan for Coca-Cola Bottling Factory</b>
CLIENT	The Coca-Cola Bottling Factories in Egypt
SOURCE OF FUNDING	The Coca-Cola Bottling Company of Egypt
PRIMARY FIRM	Chemonics Egypt
PROJECT DURATION	April 1997 - August 1997
REQUIRED EXPERTISE	<b>Environmental Management:</b> environmental auditing and compliance abatement, conceptual process design, wastewater minimization and treatment processes, industrial processes
PROJECT DESCRIPTION	The project main goals were the identification of facility potentials for violation of Egyptian environmental regulations, and selection and planning of least-cost measures to bring the facility into compliance with these regulations.
DESCRIPTION OF PROVIDED SERVICES	<p>Chemonics Egypt provided the following services:</p> <ul style="list-style-type: none"> <li>• Orientation meetings for company and plant managers</li> <li>• Survey of significant pollutants stored, used, or produced by the facility</li> <li>• Review and mapping of industrial processes, waste emissions, and discharge points</li> <li>• Identification of occupational safety and health hazards</li> <li>• Identification of potentials for emissions reduction</li> <li>• Identification of appropriate waste treatment technologies</li> <li>• Preparation of action plan for environmental compliance</li> </ul>

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PROJECT NAME	<b>Environmental Compliance Plan for Delta Manufacturing Company (IDEAL)</b>
PROJECT LOCATION	Cairo
CLIENT	Delta Manufacturing Company (IDEAL)
PRIME CONSULTANT	Chemonics Egypt
PROJECT DURATION	September - December 1997
REQUIRED EXPERTISE	<b>Environmental Management:</b> environmental auditing and compliance abatement, conceptual process design, wastewater minimization and treatment processes, industrial processes
PROJECT DESCRIPTION	The project main goals were the identification of facility potentials for violation of Egyptian environmental regulations, and selection and planning of least-cost measures to bring the facility into compliance with these regulations.
DESCRIPTION OF PROVIDED SERVICES	Chemonics Egypt provided the following services: <ul style="list-style-type: none"> <li>• Orientation meetings for company and plant managers</li> <li>• Survey of significant pollutants stored, used, or produced by the facility</li> <li>• Review and mapping of industrial processes, waste emissions, and discharge points</li> <li>• Identification of occupational safety and health hazards</li> <li>• Identification of potentials for emissions reduction</li> <li>• Identification of appropriate waste treatment technologies</li> <li>• Preparation of action plan for environmental compliance</li> </ul>

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PROJECT NAME	<b>Environmental Compliance Plan for Paints and Chemicals Industries Company</b>
PROJECT LOCATION	Cairo
CLIENT	Paints and Chemicals Industries Company
PRIME CONSULTANT	Chemonics Egypt
PROJECT DURATION	November – December 1997
REQUIRED EXPERTISE	<b>Environmental Management:</b> environmental auditing and compliance abatement; wastewater minimization and treatment process
PROJECT DESCRIPTION	The project main goals were the identification of facility potentials for violation of Egyptian environmental regulations, and selection and planning of least-cost measures to bring the facility into compliance with these regulations.
DESCRIPTION OF PROVIDED SERVICES	<p>Chemonics Egypt provided the following services:</p> <ul style="list-style-type: none"> <li>• Orientation meetings for company and plant managers</li> <li>• Survey of significant pollutants stored, used, or produced by the facility</li> <li>• Review and mapping of industrial processes, waste emissions, and discharge points</li> <li>• Identification of occupational safety and health hazards</li> <li>• Identification of potentials for emissions reduction</li> <li>• Identification of appropriate waste treatment technologies</li> <li>• Preparation of action plan for environmental compliance</li> </ul>

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PROJECT NAME	<b>Environmental Compliance Plan for the Arab Contractors Agran El-Foul Crushing Plant</b>
PROJECT LOCATION	6th of October City
CLIENT	Arab Contractors Company
PRIME CONSULTANT	Chemonics Egypt
PROJECT DURATION	November – December 1997
REQUIRED EXPERTISE	<b>Environmental Management:</b> environmental auditing and compliance abatement; wastewater minimization and treatment process; industrial process
PROJECT DESCRIPTION	The project main goals were the identification of facility potentials for violation of Egyptian environmental regulations, and selection and planning of least-cost measures to bring the facility into compliance with these regulations.
DESCRIPTION OF PROVIDED SERVICES	<p>Chemonics Egypt provided the following services:</p> <ul style="list-style-type: none"> <li>• Orientation meetings for company and plant managers</li> <li>• Survey of significant pollutants stored, used, or produced by the facility</li> <li>• Review and mapping of industrial processes, waste emissions, and discharge points</li> <li>• Identification of occupational safety and health hazards</li> <li>• Identification of potentials for emissions reduction</li> <li>• Identification of appropriate waste treatment technologies</li> <li>• Preparation of action plan for environmental compliance</li> </ul>

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PROJECT NAME	<b>Environmental Compliance Plan for the Arab Contractors Gabel Al-Akhdar Central Workshop and Fostat Asphalt Mining Plant</b>
PROJECT LOCATION	Cairo
CLIENT	Arab Contractors Company
PRIME CONSULTANT	Chemonics Egypt
PROJECT DURATION	November – December 1997
REQUIRED EXPERTISE	<b>Environmental Management:</b> environmental auditing and compliance abatement; wastewater minimization and treatment process; industrial process
PROJECT DESCRIPTION	The project main goals were the identification of facility potentials for violation of Egyptian environmental regulations, and selection and planning of least-cost measures to bring the facility into compliance with these regulations.
DESCRIPTION OF PROVIDED SERVICES	Chemonics Egypt provided the following services: <ul style="list-style-type: none"> <li>• Orientation meetings for company and plant managers</li> <li>• Survey of significant pollutants stored, used, or produced by the facility</li> <li>• Review and mapping of industrial processes, waste emissions, and discharge points</li> <li>• Identification of occupational safety and health hazards</li> <li>• Identification of potentials for emissions reduction</li> <li>• Identification of appropriate waste treatment technologies</li> <li>• Preparation of action plan for environmental compliance</li> </ul>

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PROJECT NAME	<b>Environmental Compliance Plan for the Arab Contractors Mansoura Central Workshop and New Damietta Concrete Batching Plant</b>
PROJECT LOCATION	Sandoub - Daqahlia
CLIENT	Arab Contractors Company
PRIME CONSULTANT	Chemonics Egypt
PROJECT DURATION	November - December 1997
REQUIRED EXPERTISE	<b>Environmental Management:</b> environmental auditing and compliance abatement; industrial processes
PROJECT DESCRIPTION	The project main goals were the identification of facility potentials for violation of Egyptian environmental regulations, and selection and planning of least-cost measures to bring the facility into compliance with these regulations.
DESCRIPTION OF PROVIDED SERVICES	<p>Chemonics Egypt provided the following services:</p> <ul style="list-style-type: none"> <li>• Orientation meetings for company and plant managers</li> <li>• Survey of significant pollutants stored, used, or produced by the facility</li> <li>• Review and mapping of industrial processes, waste emissions, and discharge points</li> <li>• Identification of occupational safety and health hazards</li> <li>• Identification of potentials for emissions reduction</li> <li>• Identification of appropriate waste treatment technologies</li> <li>• Preparation of action plan for environmental compliance</li> </ul>

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PROJECT NAME	<b>Feasibility Study: Industrial Wastewater Treatment Equipment Manufacture and Installation, Shobra el-Kheima</b>
PROJECT LOCATION	Shobra el-Kheima (greater Cairo area)
CONTRACTED BY	TNW Export BV
SOURCE OF FUNDING	ORET-Miliev Program - the Netherlands Government
ASSOCIATED FIRMS	Abu Zaabal Engineering
ULTIMATE BENEFICIARY	Industrial Establishments in Shoubra il-Kheima
PROJECT DURATION	February 1996 - May 1996
REQUIRED EXPERTISE	<b>Environmental Management:</b> industrial wastewater management technologies and equipment, feasibility studies
PROJECT DESCRIPTION	<p>This Dutch/Egyptian cooperative project demonstrated the innovative use of international environmental aid by addressing private sector polluters for the first time in Egypt. As part of an effort to reduce industrial wastewater pollution, it provided direct assistance for private sector industrial facilities to come into compliance with environmental legislation. It also provided a model for waste management in Egypt and introduced economic instruments for pollution control.</p> <p>The technical viability for this project was demonstrated in a test study conducted in September 1995. The project involved installing wastewater treatment equipment in selected private sector facilities to enable the factories to meet environmental standards, which will allow them to be connected to the existing sewerage system.</p> <p>The 150 small- and medium-sized facilities selected for the project were in the northern Cairo suburb of Shoubra el-Kheima. Many of these factories released their industrial wastewater into agricultural drains despite the fact that a sewerage system and biological treatment facility for the area had been completed. Before the facilities could connect to the sewerage system they first had to meet the effluent standards set by existing laws.</p> <p>To help these facilities comply with environmental regulations, components imported from Holland were combined with locally produced components and installed as wastewater treatment modules at each facility. The entire package consisted of wastewater treatment equipment, installation and training. A quality control testing facility was installed at the Abu Zaabal Engineering factory as part of the project.</p>

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PROJECT NAME	<b>Industrial Wastewater Quality Monitoring Task</b>
PROJECT LOCATION	Procter and Gamble Factory in 6th of October City
CLIENT	Procter and Gamble
CONTRACTED BY	Procter and Gamble
PROJECT DURATION	February 1996 - March 1996
REQUIRED EXPERTISE	<b>Environmental Management:</b> industrial wastewater sampling
PROJECT DESCRIPTION	<p>This monitoring study was undertaken to collect and analyze wastewater samples from various sites at the Procter and Gamble facility in 6th of October City to determine possible violations of existing regulations.</p> <p>Sampling locations and types were determined during an initial site visit; composite and grab samples were collected, preserved, and transferred to the lab for chemical analysis during later scheduled visits. Results of the lab analyses and conclusions about possible violations were reported.</p>

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PROJECT NAME	<b>Sample Analysis for Industrial Auditing Program: Support for Environmental Assessment and Management (SEAM), Egypt</b>
PROJECT LOCATION	Daqahlia and Sohag Governorates
CLIENT	TCOE/EEAA
CONTRACTED BY	ENTEC UK Ltd., DfID (formerly ODA)-financed project
PROJECT DURATION	April - July 1996
REQUIRED EXPERTISE	<b>Environmental Management:</b> industrial wastewater sampling
PROJECT DESCRIPTION	<p>The UK Department for International Development, formerly the Overseas Development (ODA) Administration, supports a project known as Support for Environmental Assessment and Management (SEAM). The industrial auditing component of this project is closely related to the National Industrial Pollution Prevention Program (NIPPP) implemented by the Technical Cooperation Office for the Environment of the Egyptian Environmental Affairs Agency (TCOE/EEAA).</p> <p>The primary objective of this project was the analysis of wastewater samples submitted as part of the Industrial Auditing Program. The samples were taken from factories in the food, textile and oil and soap sectors, and delivered for analysis by ENTEC. Approximately 150 - 300 samples were analyzed.</p> <p>Primary analyses included pH, BOD, COD, total and suspended solids, oils and fats.</p>

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PROJECT NAME	<b>Industrial User Survey</b>
	<b>Canal Cities Water and Wastewater Improvement Project, Suez Special Services</b>
PROJECT LOCATION	Suez, Egypt
CLIENT	ABB Susa/Dillingham Joint Venture
FUNDING AGENCY	United States Agency for International Development (USAID)
PROJECT DURATION	June 1993 - June 1995
PROJECT DESCRIPTION	Certain substances in industrial wastewater can damage the fabric of public sewers and/or undermine wastewater treatment processes. Under contract to the ABB Susa/Dillingham JV, Chemonics Egypt conducted a survey of industrial user in Suez City as a prelude to an Industrial Wastewater Monitoring Program. The survey aimed at identifying all potential categorical and significant industrial/commercial users within the wastewater treatment plant catchment by assessing their likelihood of discharging any of 126 priority pollutants as defined by the US Environmental Protection Agency (EPA).
DESCRIPTION OF PROVIDED SERVICES	<p>Activities included:</p> <ul style="list-style-type: none"> <li>• Surveying records to identify all non-domestic establishments (896 facilities)</li> <li>• Undertaking field surveys and data analyses to identify industrial activity type and user category (this step produced a list of 434 facilities)</li> <li>• Designing and administering a detailed questionnaire to the 434 identified facilities</li> <li>• Identifying and applying criteria for determining a final short list</li> <li>• Identifying a final list of 185 potential dischargers of priority pollutants</li> </ul>

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PROJECT NAME	<b>Industrial Wastewater Monitoring Program</b>  <b>Canal Cities Water and Wastewater Improvement Project, Suez Special Services</b>
PROJECT LOCATION	Suez, Egypt
CLIENT	ABB Susa/Dillingham Joint Venture
FUNDING AGENCY	United States Agency for International Development
PROJECT DURATION	June 1993 - June 1995
REQUIRED EXPERTISE	<b>Environmental Management:</b> industrial user survey development and administration, industrial wastewater sampling and analysis
PROJECT DESCRIPTION	<p>This activity followed on the Suez Industrial User Survey (see Fact Sheet 21). The 185 potentially polluting facilities were investigated to develop a short list for wastewater sampling and analysis. Then for the final listed facilities, Chemonics Egypt: (1) measured industrial wastewater flows to confirm discharges of US EPA priority pollutants, characterized the concentration &amp; volume of each establishment's discharge, and estimated the total volume and concentration of pollutants discharged to the sewer system; (2) developed a plan for ongoing monitoring of discharges from confirmed polluters; and (3) established an information management system for industrial waste monitoring data.</p> <p>Activities included:</p> <ul style="list-style-type: none"> <li>• Designing and administering protocol for visits to the 185 facilities identified during the industrial user survey</li> <li>• Designing and implementing detailed facility investigations for 71 facilities</li> <li>• Developing and implementing a program for flow monitoring, sampling, and analysis for 35 facilities (60 sample points)</li> <li>• Developing and building a data management system</li> </ul>

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PROJECT NAME	<b>Upgrading the CAP of El-Nasr Coke Company to a Pollution Abatement Action Plan (PAAP)</b>
PROJECT LOCATION	Cairo
CLIENT	EEAA – Egyptian Pollution Abatement Project
PRIME CONSULTANT	Chemonics Egypt
PROJECT DURATION	January – September 1998
REQUIRED EXPERTISE	<b>Environmental Management:</b> environmental auditing, air pollution, wastewater, solid waste, industrial processes
PROJECT DESCRIPTION	After performing extensive visits to the site, Chemonics Egypt presented a detailed description of the process and main pollution problems at the factory together with detailed process flow sheets with available materials and energy balance information. Several projects were presented to improve the environmental status of the factory.