

## STATEMENT OF CHARLES B. COOPER

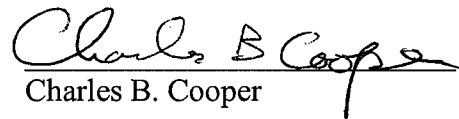
I hold the position of Director of Environmental Permitting and Planning at TRC Environmental Corporation (“TRC”). My curriculum vitae is attached.

In that position, since 1998 I have led a team of professionals at TRC which has helped Mirant Kendall develop its repowering and upgrade project at the Mirant Kendall Station. That work included the effort to obtain a modified NPDES renewal permit from EPA Region 1, and supervision of Mirant Kendall’s Charles River water quality monitoring and biological collection program from 1998 to date. Virtually all of Mirant Kendall’s data submissions to the Region in connection with the NPDES renewal permit were prepared under my supervision.

This Statement concerns the additional analyses provided by Mirant Kendall as part of Mirant Kendall’s Supplemental Petition for Review by the Environmental Appeals Board of the final NPDES renewal permit issued by EPA Region 1 on September 26, 2006. The Supplemental Petition includes several new analyses of the Charles River monitoring and sampling data which were prepared under my supervision in order to respond to the final NPDES renewal permit, to the Region’s responses to comments on the draft NPDES renewal permit, and to the Region’s analyses in those responses of monitoring data Mirant Kendall or the Region had obtained post the close of comments on the draft NPDES renewal permit.

Each of those new analyses in the Supplemental Petition was prepared from information that Mirant Kendall submitted to the Region in connection with and prior to the final issuance of the NPDES renewal permit. Not all of those submittals were listed

on the Region's 10/12/06 A.R. Index, but I understand that Mirant Kendall and the Region will work cooperatively in the coming weeks to compile the complete administrative record and that all of Mirant Kendall's data submissions underlying the new analyses in the Supplemental Petition will be included.

  
Charles B. Cooper

DATE: December 18, 2006

LIT 1597765v.1

## **CHARLES B. COOPER**

### **TECHNICAL SPECIALTIES**

Mr. Cooper has 36 years of experience encompassing:

- Director of Environmental Permitting and Planning, TRC Environmental Corporation (1998-present)
- Senior Consultant and Associate Director, Arthur D. Little, Inc. (1991-1998)
- Vice President and Director of Environmental Services, CSI Resource Systems, Incorporated (1989-1991)
- Project Manager, Metcalf & Eddy, Inc. (1987-1989)
- Senior Staff, Arthur D. Little, Inc. (1973-1987)
- Legislative Agent, New Jersey League for Conservation Legislation (1971-1973)
- Program Staff, Tuberculosis and Respiratory Diseases Association of Bergen and Passaic Counties, New Jersey (1970-71)

### **EXPERIENCE**

Mr. Cooper manages Environmental Permitting and Planning activity at TRC. His major areas of expertise include environmental impact assessment, fisheries, environmental strategy, project planning and permitting, waste management, facility siting, and the formal assessment of risks to public health and the environment.

In more than 35 years as an environmental consultant, Mr. Cooper has had financial and technical management responsibility for more than 250 projects. He has designed and performed field, laboratory, and desk-top studies of the environmental and economic impacts of many activities, including facility siting and operations, hazardous waste disposal, land and ocean disposal of large volume utility solid wastes; and establishment of ambient water quality criteria. He has conducted field and desk-top evaluations of water-dependent projects on all three coasts of North America, in the Great Lakes and Mississippi river drainages. Mr. Cooper has served as an expert witness in litigation, administrative, and legislative hearings in nine states. He has worked in eleven countries outside of the United States, including Canada and Mexico and countries in Europe, and has conducted fisheries studies in Asia, Central and South America, and the Caribbean.

Examples of Mr. Cooper's work include the following:

- Mr. Cooper is managing and serving as a senior technical advisor on several permitting and planning assignments for existing and proposed major energy projects. These include proposed major modifications to existing fossil-fuel-fired power plants and proposed Greenfield combined-cycle plants. In Massachusetts, he managed the environmental approvals documentation process for Southern Energy's proposed Kendall

Square Station upgrade on the Charles River in Cambridge, Massachusetts, and for the Salem Harbor Station Emission Control Project.

Mr. Cooper has directed and served as Senior Advisor for numerous water permitting and compliance efforts for major projects. Examples include:

- Southern Energy's Kendall Square Station project on the Lower Charles River, Massachusetts, where key issues included the fisheries and ecological impacts of use of a once-through cooling discharge to de-stratify and restore oxygen to the River's lower basin.
- Expert testimony in the NYSDEC adjudicatory hearing regarding the fisheries impacts of alternative technologies for cooling the proposed Bowline Unit 3 on the Hudson river in Haverstraw, NY;
- Aurora Energy's NPDES permit for its once-through cooled power plant on the cold-water Chena River in Fairbanks, Alaska
- Southern Energy's Canal Station Redevelopment Project on the Cape Cod Canal, where key issues included the impacts of alternative intake technologies on local populations of commercially and recreationally valued fish;
- Salem Harbor Station's NPDES renewal, involving permitting of a once-through cooling system withdrawing from and discharging to Salem Harbor, MA.
- RIPDES permit renewal for Dominion Energy's Manchester Street Station in Providence , R.I.
- NPDES permit renewal for a once-through cooled facility on the Saugus River, MA
- For U.S. Steel Corporation, Mr. Cooper was Principal Investigator and expert witness for all water resources, ecology, land use and public health EIA studies for the successful permitting of a new integrated steel plant on Lake Erie. Key issues included impacts of proposed stream relocations on coldwater fisheries in tributaries to Lake Erie's Central Basin. Mr. Cooper directed habitat assessments and mitigation proposal development for stream relocations associated with the project.
- For a private client, Mr. Cooper participated in ecological and recreational studies of fisheries in the Niagara River near waste disposal sites on Grand Island, NY,. Key issues included definition of exposure pathways associated with potential food web transfer of chemicals.

- Mr. Cooper participated as a senior technical reviewer in TRC's assistance to USEPA regarding ecological risk assessment and remediation of the Lackawanna site on Lake Ontario and tributaries thereto.
  - Mr. Cooper served as a senior technical reviewer for an ecological risk assessment and remediation plan for fisheries resources associated with a coastal forest products manufacturing site in the Pacific Northwest.
  - For Armco Steel, Mr. Cooper was Principal Investigator for field studies and the Environmental Impact report for permitting of a new coke oven facility along the Ohio River near Huntington, West Virginia. Three alternative sites were studied in detail and compared. Key issues included fisheries impacts of the coke oven wastewater discharge;
  - Design and conduct of field and lab studies to determine operations impacts of a chemical plant on fisheries populations in a tributary stream and river in the Midwest;
  - NPDES permitting for the proposed Lawrence Energy Center on the Ohio River
  - NPDES permitting for the Newington Power Station near Portsmouth, New Hampshire.
  - Mr. Cooper developed the conceptual framework and directed the Thermal Plan compliance analysis for the modification of the NPDES permit for Duke Energy's Moss Landing Plant modernization in Monterey, California;
  - Ongoing consulting to the City of Haverhill regarding future water supplies
  - Mr. Cooper is serving as an expert for the fisheries aspects of several cases involving the appeals of permits issued under the Massachusetts Water Management Act. In this capacity, he has provided expert testimony and litigation support concerning the species composition, habitat requirements and impairment thresholds associated with freshwater and anadromous fisheries in the subject rivers and in reference locations throughout New England.
- He is directing the permitting support for potential tidal power projects at several locations in the Northeast, Mid- Atlantic, Pacific Northwest, and Alaska.
    - For the County of Santa Barbara, California, and Joint Review Panels of State and Federal agency representatives, Mr. Cooper was in charge of evaluations , documentation, expert testimony and development of permit conditions regarding biological impacts in the EIA/EIS efforts for the following projects:
      - the Chevron Point Arguello Field and Gaviota Marine Terminal and Processing Facility oil and gas development, including more than 7 miles of offshore and 16 miles of onshore pipelines;

- UNOCAL and Exxon Point Pedernales Field oil and gas development and on-shore treatment facility, including 5 miles of offshore and 30 miles of onshore pipelines through sensitive areas;
  - The 25-mile Exxon Lompoc Oil Pipeline Project;
  - The Exxon Santa Ynez Unit oil and gas development, marine terminal and on-shore processing facility project.
- For a major US oil company, Mr. Cooper was Principal Investigator for environmental, regulatory, and public acceptance considerations in a site screening study for a new refinery and deepwater port project. The study identified a preferred location in Louisiana following development and application of preference criteria to a study area inclusive of the entire US East and Gulf coasts and Caribbean territories. One of the alternatives considered in detail was expansion of an existing New Jersey refinery
- Mr. Cooper was in overall charge of the consulting support to American Ref-Fuel Company in obtaining permits for proposed recycling, waste-to-energy, and ash-monofill uses of the Northern Disposal Landfill site in East Bridgewater, MA. Tasks included preparation of environmental impact reports under the Massachusetts Environmental Policy Act (MEPA), analyses of site and surrounding area conditions to identify potentially pre-emptive project constraints, and conduct of air-quality and related, health risk impact analyses to meet permitting requirements.
- Mr. Cooper was Principal in charge, a senior technical reviewer and participant in agency negotiations and public meetings for the successful MEPA review and permitting of the Legeis Development Corporation's proposed recycling and waste-to-energy facility project in Shirley Massachusetts. Technical emphases included oversight of public health risk assessment and of environmental impact assessment results.
- Mr. Cooper managed a series of efforts for an international energy client to evaluate and address the economics, strategies and communications issues associated with global warming. Particular attention was paid to reduction and trading of CO<sub>2</sub> emissions. Joint initiatives, including forestry management, were evaluated.
- Mr. Cooper managed a team which successfully prepared the environmental information documents necessary for permitting and achieving DOE's NEPA compliance for a proposed Clean Coal Demonstration Project in Fairbanks, Alaska. The project, now under construction, involves installation and demonstration of new diesel-fired electric generating capacity to run on a coal-

water slurry fuel.

- For the South Carolina State Ports Authority, Mr. Cooper was Project Manager and Principal Investigator for development of a harbor, port and industrial development Master Plan for Georgetown, South Carolina.
- For Wheelabrator Environmental Systems, Mr. Cooper managed a site selection study for a prospective trash-to-energy project in Genessee County, New York.
- Mr. Cooper served as the environmental expert in work for the Special House Legislative Commission, which developed Rhode Island's siting policy for waste-to-energy facilities.
- Mr. Cooper served as a principal investigator and expert witness on the siting aspects of the adjudicatory hearing before the Maine Board of Environmental Protection on the licensing of the Greater Portland Resource Recovery Facility.
- For the Atlantic County, New Jersey Utilities Authority, Mr. Cooper was principal - in- charge, senior technical reviewer and a contributor to the public health risk assessment and environmental impact reports for a waste-to-energy facility project in New Jersey. This work involved comprehensive review and response to New Jersey's requirements for Health and Environmental Impact reviews and projects in the Pinelands District.
- Mr. Cooper was Task Manager for all environmental assessment aspects of a major program of field studies and environmental analyses for U.S. EPA to provide technical basis for RCRA classification of, and disposal guidance for, large-volume electric utility air pollution control solid wastes (ash and scrubber sludges). Site studies were conducted in North Carolina, Pennsylvania, Florida, Minnesota, Wyoming and Illinois.
- For EPA's Office of Research and Development, Mr. Cooper was a principal investigator in a two-year evaluation and reporting of the state-of-the-art of waste and water management among fossil-fuel -fired electric utilities.
- For the U. S. Environmental Protection Agency, Mr. Cooper managed a study of the technical, economic and regulatory feasibility of the disposal of Flue Gas Cleaning wastes (FGD sludge and ash) in the ocean. The first phase of this multidisciplinary project involved establishing the overall feasibility, identifying technical and institutional constraints, and defining viable options. In the second phase, physical, chemical and bioassay tests were performed to define more clearly the potential impacts of the more viable options, such as dispersed disposal in the deep ocean. He also provided oversight for the EPA in a program for in-situ demonstration of near-shore disposal of stabilized wastes formed into blocks.

- For Public Service Electric & Gas, Mr. Cooper was Principal Investigator for ecological and water quality impacts in the Federal Energy Regulatory Commission licensing EIS for a proposed LNG terminal expansion in New York City. Work included a detailed comparison of the environmental impacts of siting terminal facilities at alternative sites in New York and New Jersey, and of several siting alternatives for pipeline routes across New Jersey and the Arthur Kill.
- For an independent power producer in New England, Mr. Cooper directed an evaluation of utilization and disposal alternatives for the residuals from water and wastewater treatment at a 500 MW gas-fired co-gen facility. The work included comparison of the technical, environmental regulatory and economic risks and benefits of utilization versus on-site disposal versus different contract disposal options for the residuals. To help implement the selected alternative, the client was provided assistance in testing the chemical makeup of the waste, and in developing the necessary on-site waste handling procedures.
- For a confidential client in the utility industry, he was Principal Investigator for natural resources/environmental aspects of a siting study for potential new fuel oil storage capacity in New England.
- For the South Carolina State Ports Authority, Mr. Cooper was the principal investigator and EIS author for wetlands and ecology in the successful siting and U.S. Army Corps of Engineers permitting of the new Wando Port Terminal near Charleston.
- For the Integrated Environmental Management Program of the USEPA, Mr. Cooper was the investigator in charge of the development of a methodology for assessment of ecological, commercial and recreational fisheries, visibility and materials damage considerations for use in studies of the cross-media impacts of various types of pollution prevention strategies for major industries. In addition to the development of an overall methodology, he was responsible for application of the approach to three industries: petroleum refining, primary metals processing in foundries, and the ethylene/BTX segment of the petrochemicals industry. Mr. Cooper also chaired a panel of experts convened by the EPA to discuss the state of the art of natural resource damage assessment and valuation for these types of studies.
- Mr. Cooper was Task Manager of an environmental, public policy and regulatory assessment of chemical weapons stockpile disposal alternatives by the U.S. Army Toxic and Hazardous Materials Agency. He developed and applied criteria for ranking environmental, regulatory and public policy aspects of dispersed and consolidated disposal alternatives at eight sites.
- Mr. Cooper managed the preparation of U.S. EPA's Environmental Impact Statement for the siting, technology selection, construction, and operation of



facilities for long-term disposal of the sewage sludge, scum, grit, screenings, and combustion ash from the over one-billion-gallon-per-day MWRA wastewater treatment facilities serving 43 Boston-area communities. The work, which paralleled the state MEPA review, included more than 20,000 person-hours of detailed evaluation of prospective composting, heat-drying, incineration, and landfill facilities at 10 alternative sites. Major emphases in the work included the reliability and pollution prevention potential of alternative technologies, potential community quality of life impacts (e.g. traffic, land use, aesthetics, etc.) and the environmental and public health risks of technology implementation at the alternative sites.

- For a German manufacturer of flexible packaging, Mr. Cooper managed the successful site selection and permitting for the company's first production facility in the U.S. Important considerations included the timely development of required design data, air quality impacts of volatile organic compounds and the timely acquisition of all required regulatory approvals.
  
- Mr. Cooper has conducted several evaluations of the commercial potential of fisheries developments, including an overall assessment of private sector investment opportunities in Panama, export development opportunities in Sri Lanka, an aquaculture facility valuation in Brazil, an aquaculture project development in Louisiana, a worldwide opportunity assessment of shrimp and bivalve culture for a major US corporation, an assessment of shrimp culture potential in Bangladesh, and feasibility evaluation of mariculture potential for offshore structures.
  
- For USEPA Region 1, management for the U.S. EPA of the risk assessment of consumption of contaminated seafood from Quincy Bay, MA. This work came to focus on PCB levels in sediments and seafood, and resulted in a public health advisory. The work was summarized by Mr. Cooper and colleagues in a 1991 issue of Environmental Health Perspectives
  
- For the Metropolitan District Commission (MDC), diagnostic study of mercury contamination of fish in the Quabbin Reservoir, the water supply for much of Eastern Massachusetts.
  
- For the American Petroleum Institute, Mr. Cooper was in charge of a study of alternative means for the setting of site-specific water quality criteria for the protection of aquatic life.
  
- For the U.S. EPA headquarters, Mr. Cooper performed a case study of techniques for indexing the ecological health of streams in response to changes in water and sediment quality, managed tasks to recommend ways to collect and use data on sublethal effects in aquatic risk assessments and ways to estimate fisheries populations for risk assessments.

- For RSR Corporation, Mr. Cooper managed facility siting and permitting efforts for a new lead-acid battery recovery facility in the Carolinas. Major permits included: RCRA (hazardous waste facility) , PSD/Air license, wastewater pretreatment and stormwater, and local approvals.
- For a new joint venture company in the waste management industry, Mr. Cooper managed a program to evaluate and develop alternatives for privatized management of more than 500 dry tons per day of municipal sewage sludge previously disposed in the ocean by municipalities in New Jersey. The work included a detailed evaluation of the practicability of available sludge management technologies for a densely-populated urban area; and the development of a site-specific project plan for beneficial reuse of the sludge.
- For prospective investors, Mr. Cooper has directed the environmental aspects of preliminary due-diligence reviews of prospective waste management projects, including reviews of municipal solid waste composting projects in Texas and New York and of three municipal solid waste landfill acquisitions in the eastern U.S.
- For a prospective producer of refuse-derived fuel (RDF), Mr. Cooper was in overall charge of the preparation of the permit support documentation for a solid waste processing facility and transfer station in the Bronx Borough of New York City
- For the Concord Resources Group, Mr. Cooper directed State Environmental Quality Review (SEQR) and solid waste facilities siting and permitting tasks (NYCR Part 360) for alternative municipal solid waste recycling, composting and landfill projects in western New York State. The work also included identification of Federal wetlands permitting requirements under the jurisdiction of the U.S. Army Corps of Engineers. A comparative evaluation framework for site selection was developed to satisfy the exclusionary and discretionary criteria of New York's regulations and to satisfy the need for meaningful agency and public participation without compromising the applicant's interests in the site selection process.
- Mr. Cooper served as a member of the Integrated Solid Waste Management Advisory Committee established by the Massachusetts Department of Environmental Protection to make recommendations regarding potential improvements to the state's master planning, facility licensing and environmental impact review procedures.
- For the New York City Department of Sanitation, Mr. Cooper served as a technical advisor in the development of portions of the City's master plan for solid

waste management. The plan took the form of a Generic Environmental Impact Statement.

- For a commercial client in New York City, Mr. Cooper managed a critical evaluation of the Environmental Impact Statement for a major new mixed commercial/ residential/ office development in lower Manhattan.
- Mr. Cooper served as senior technical investigator and project reviewer in a site-screening analysis for a wastewater-sludge composting facility in the 5-town region served by a New Haven treatment plant. He directed development and use of criteria for evaluation of more than 50 sites with host community participation resulting in identification of three preferred sites.
- For the Orange County, Florida Refuse Disposal Facilities Plan, Mr. Cooper was senior technical reviewer and a contributor to the public health risk assessment and generic environmental impact report for a conceptual waste-to-energy facility project in central Florida.
  
- Mr. Cooper's experience in health risk assessment includes the design, performance and critical review of multi-pathway risk assessments for the following projects:
  - Combustion, composting, heat drying and landfill alternatives for wastewater sludge disposal at five alternative sites in Massachusetts.
  - Municipal solid waste combustion facilities at sites in Shirley and East Bridgewater, MA; North Kingstown, R.I., and Orange County, FL; and
  - A proposed hazardous waste processing facility in Orange, MA.

Mr. Cooper has also designed, conducted and critically reviewed single pathway risk assessments. These include:

- management for the U.S. EPA of the risk assessment of consumption of contaminated seafood from Quincy Bay, MA. This work came to focus on PCB levels in sediments and seafood, and resulted in a public health advisory. The work was summarized by Mr. Cooper and colleagues in a 1991 issue of Environmental Health Perspectives.
- He has critically evaluated inhalation risk assessments for proposed waste combustion facilities in New Jersey, Maine and Washington, and a steel plant in Rhode Island.

- He conducted the public health risk evaluation for the USEPA Region I of the offshore ocean discharge alternatives for the MWRA greater Boston area wastewater treatment plant.

For a client in the metals industry, Mr. Cooper managed an extensive program of EHS compliance auditing, management systems development support and permitting assistance at all of the company's U.S. subsidiary facilities. Individual assignments included the following:

- **EHS Compliance Audits** - At the direction of counsel, conducted more than 15 comprehensive EHS compliance audits of production facilities. Regulatory and management practice findings and recommendations have been identified and tracked through to implementation, working side by-side with facility and corporate staff.
- **Development of EHS Compliance Manuals** - developed detailed EHS compliance manuals for each of the three production facilities. These manuals identify management systems, roles and responsibilities and all individual regulatory requirements and corresponding compliance mechanisms for environmental, health and safety at the plants.
- **Development of Quality Assurance/Quality Control Program Plans** - developed detailed QA/QC Program Plans for production facilities. These plans identify management systems, roles and responsibilities and a QA/QC framework for the sampling and analyses related to environmental, health and safety at the plants.
- **Development of a Master Compliance Tracking System**- developed and helping implement an online comprehensive EHS Compliance tracking system for each of three lead production facilities. The system provides comprehensive individual and networked tracking of both recurring environmental, health and safety compliance milestones and audit findings and resulting corrective actions at the plants.
- **On-call Compliance Support** - under a master agreement, provided on-call miscellaneous EHS compliance support to the EHS Compliance Managers at subsidiary plants. Completed tasks under this agreement related to episode management and equipment maintenance for plant air pollution control systems.
- **Air Quality Permitting and Compliance Assistance** - conducted a variety of air permitting and compliance assistance tasks for facilities. Examples include:
  - Preparation of the annual emissions inventory
  - Air quality modeling support for the permitting of new equipment
  - Air quality modeling support and expert testimony for the permitting of a new stack
  - Preparation of a Reasonable Available Control Technology (RACT) analysis for control of nitrogen oxides.
- Mr. Cooper managed a successful litigation support effort concerning alleged violations of the Emergency Planning and Community Right to Know Act

(EPCRA). This work included expert testimony and technical evaluation of the potential environmental damages associated with the alleged violations.

- For a steel manufacturer, Mr. Cooper has been the project manager of a litigation support effort in conjunction with alleged violations of the air license of an operating steel plant. After several months of litigation in the State Superior and Supreme Courts, during part of which time the facility was ordered shut down, agreement was reached on a combination of short-term and long-term measures designed to allow continued operation of the facility in an environmentally acceptable manner.
- For an insurer, Mr. Cooper has critically reviewed the technical basis for projected CERCLA and related compliance costs associated with three major contaminated sites in the Northeast. Emphases have included critical review of assumptions concerning fate and effects of contaminants, human and wildlife exposure, and the likelihood of success of various cleanup alternatives.
- For a residential property owner, Mr. Cooper was Project Manager and expert witness for permitting of a dredging/wetlands modification project in Westchester County, New York
- Mr. Cooper has been a member of the Boston Bar Association. He graduated Magna Cum Laude from Fairleigh Dickinson University, where he conducted graduate-level studies in field ecology in the U.S. Virgin Islands. Mr. Cooper is the author or co-author of more than a dozen published works in the fields of waste management and environmental assessment. He appeared on CNN's "Managing" program in March, 1995 to discuss the challenges faced by small businesses in dealing with environmental regulations.