



United States  
General Accounting Office  
Washington, D.C. 20548

Resources, Community, and  
Economic Development Division

B-254838

October 7, 1993

The Honorable John D. Dingell  
Chairman, Subcommittee on Oversight  
and Investigations  
Committee on Energy and Commerce  
House of Representatives

Dear Mr. Chairman:

As you requested, we are providing you with the descriptions and estimated value of the work being done on the various work assignments issued by the Environmental Protection Agency (EPA) under a contract awarded to ICF, Inc. This 3-year level-of-effort contract (68D20178) was awarded on September 28, 1992, for \$35.2 million. Two divisions under EPA's Office of Air and Radiation, the Global Change Division and Stratospheric Ozone Protection Division, have issued work assignments against the contract. Work is being done for the Global Change Division on several programs for preventing pollution, including reducing greenhouse gases through market-enhancing programs, which are voluntary and nonregulatory. Work for the Stratospheric Ozone Protection Division focuses on programs to protect the ozone level in the earth's stratosphere. Enclosures I through VI summarize the work assignments issued under the contract as of May 27, 1993.

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Unless you publicly announce its contents earlier, we plan no further distribution of this correspondence for 30 days from the date of this letter. At that time, we will send copies to the Administrator, EPA, and make copies available to others upon request.

If you have any further questions about this matter, please contact me at (202) 512-6111 or William McGee,

B-254838

Assistant Director, at (919) 829-3500. We hope this information will assist you in your efforts to monitor EPA's use of contracts.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "Richard L. Hembra".

Richard L. Hembra  
Director, Environmental Protection  
Issues

Enclosures - 6

WORK ASSIGNMENTS CONTRACT 68D20178  
GLOBAL CHANGE DIVISION, OFFICE OF AIR AND RADIATION

GREEN LIGHTS PROGRAM\*

Number	Estimated cost of work	Summary description of work
1-1	\$372,341	Provide communication support for the Green Lights Program, including (1) developing advertisement and articles; (2) maintaining files of media clippings; (3) developing prototype communication tools; (4) providing expert advice on effective use of green lights graphics; (5) developing prototype graphics products; and (6) providing on-site logistical support to EPA at meetings, workshops, trade shows, and conferences.
1-2	\$407,572	Provide support services for the Green Lights Program, including (1) providing training support to program participants, (2) providing intensive support for green lights partners, (3) maintaining technical hotline for purpose of providing green lights participants with information, and (4) providing general analytical support services and tools.
1-3	\$413,098	Provide decision support system to support Green Lights Program, including (1) integrating the warehouse/mass merchandise module of the decision support system with the office module, (2) updating and upgrading the decision support system, and (3) providing telephone and telefax support to users of the decision support system to respond to questions.

Note: Work assignments 1-28, 1-30, and 1-47 were not used.

\*Green Lights is a program that encourages major U.S. organizations to install energy-efficient lighting.

**WORK ASSIGNMENTS CONTRACT 68D20178  
GLOBAL CHANGE DIVISION, OFFICE OF AIR AND RADIATION**

**GREEN LIGHTS PROGRAM**

Number	Estimated cost of work	Summary description of work
1-4	\$ 45,040	Provide financial information and tools to Green Lights Program, including (1) updating semi-annually the registry of financial resources and (2) preparing financial methods and model documents by analyzing different third-party financing methods.
1-5	\$789,584	Provide analytical and marketing support for the Green Lights commercial and industrial programs, including (1) conducting outreach efforts and maintaining a data registry on participants and prospects, (2) maintaining green lights hotline and distributing program material, (3) updating and maintaining electronic bulletin board on the green lights process and progress, and (4) developing list of trade shows and conferences that deal with energy efficient lighting.
1-6	\$ 24,938	Provide special projects in support of the Green Lights Program, including (1) monitoring technology development, (2) developing new educational material to inform property managers of the benefits of energy efficiencies, and (3) analyzing the options for disposal of fluorescent and incandescent bulbs.
1-7	\$ 39,514	Develop materials to support a recognized surveyor program that will qualify lighting auditors with a minimum degree of competence.

WORK ASSIGNMENTS CONTRACT 68D20178  
GLOBAL CHANGE DIVISION, OFFICE OF AIR AND RADIATION

GREEN LIGHTS PROGRAM

Number	Estimated cost of work	Summary description of work
1-35	\$223,612	Provide data management support for Green Lights Program, including (1) maintaining the implementation registry, (2) designing and implementing enhancements to the implementation registry, and (3) providing quick turnaround research and analysis with the implementation registry on miscellaneous green lights implementation issues.
1-48	\$ 6,908	Introduce efficient lighting in China by (1) organizing and sponsoring a meeting on efficient lighting and completing all phases of planning and logistical preparations, (2) providing graphics, and (3) summarizing a description of the visiting Chinese organization and providing background material to EPA.

**WORK ASSIGNMENTS CONTRACT 68D20178**  
**GLOBAL CHANGE DIVISION, OFFICE OF AIR AND RADIATION**

**METHANE AND CLIMATE BRANCH**

Number	Estimated cost of work	Summary description of work
1-8	\$ 31,915	Complete the assessment and evaluate the potential for reduction of the coalbed methane in the former Soviet Union. Specifically, revise draft report (Russia/Ukraine Coalbed Methane Resource Assessment) by responding to comments received on draft and incorporating additional data.
1-13	\$123,999	Conduct a pre-feasibility assessment into the application of surface and in-mine horizontal borehole methane drainage technologies in Poland and Czechoslovakia. Specifically, (1) prepare for mission to Poland and Czechoslovakia and participate in seminars by preparing and delivering technical presentations and (2) prepare pre-feasibility assessment report on opportunities to expand methane recovery and utilization in these two countries.
1-14	\$ 74,675	Conduct a pre-feasibility assessment into the applicability of U.S. methane recovery technologies such as in-mine longhole drilling methane drainage in Poland and Czechoslovakia. Specifically, perform same tasks as in work assignment 1-13.
1-15	\$ 20,793	Assist EPA in identifying and evaluating the barriers and incentives to increased application of landfill energy recovery.

WORK ASSIGNMENTS CONTRACT 68D20178  
GLOBAL CHANGE DIVISION, OFFICE OF AIR AND RADIATION

METHANE AND CLIMATE BRANCH

Number	Estimated cost of work	Summary description of work
1-16	\$109,906	Prepare profiles of current conditions and project opportunities for reducing methane emissions at selected coal production entities in the former Soviet Union. Specifically, (1) prepare for mission to Russia, (2) participate in mission to Russia, (3) perform technical analysis of issues that influence the types of projects selected, (4) perform economic and financial analyses that influence the types of projects selected, and (5) prepare profile reports summarizing project opportunities and resulting methane emission reductions.
1-17	\$225,063	Identify and evaluate better opportunities to reduce methane emissions from key sources in the United States and globally.

WORK ASSIGNMENTS CONTRACT 68D20178  
GLOBAL CHANGE DIVISION, OFFICE OF AIR AND RADIATION

METHANE AND CLIMATE BRANCH

Number	Estimated cost of work	Summary description of work
1-20	\$ 60,445	Provide support to the Division's methane reduction activities by research and communication with different nations on emissions from coal mines, natural gas systems, and ruminant livestock and opportunities to reduce emissions. Specifically, (1) establish a coalbed methane clearinghouse in China, (2) organize China workshop and study tour, (3) organize Soviet workshop and study tour and communicate results of ongoing Soviet assessments, (4) support other international coal mining activities to achieve coal mining methane reduction programs, (5) support ruminant livestock reduction by identifying and encouraging cost-effective reductions in methane emissions from ruminant livestock, (6) implement cooperative activities with China on ruminant emission measurement study, (7) support natural gas system emissions reduction assessment and project feasibility studies, and (9) organize Soviet workshop and study tour in the United States.
1-22	\$142,650	Provide support on voluntary greenhouse gas programs and reviews of reports to the Congress. Specifically, (1) develop outreach-focused briefings, (2) develop lists of companies and trade associations that should be targeted, (3) develop list of conferences where presentations can be made, (4) develop prototype materials summarizing the achievements of the program, (5) prepare graphics products and information documents, and (6) make necessary arrangements for meetings and workshops related to methane and global change issues.



**WORK ASSIGNMENTS CONTRACT 68D20178  
GLOBAL CHANGE DIVISION, OFFICE OF AIR AND RADIATION**

**METHANE AND CLIMATE BRANCH**

Number	Estimated cost of work	Summary description of work
1-23	\$ 49,807	Investigate the effects of methane increases in the troposphere. Specifically, develop report documenting differences in models used and investigate chemical mechanisms used by different international models.
1-26	\$ 5,457	Provide support for the organization of a 2-day workshop on carbon tetrafluoride.
1-27	\$ 14,990	Provide assistance in completing two reports to the Congress on opportunities for reducing methane emissions.
1-38	\$ 56,646	Assist EPA to organize and implement a conference on coalbed methane reduction opportunities in China, Russia, and the Ukraine.
1-44	\$ 13,125	Obtain very high quality data on the magnitude of methane emissions from key natural gas facilities in Russia.

**WORK ASSIGNMENTS CONTRACT 68D20178**  
**GLOBAL CHANGE DIVISION, OFFICE OF AIR AND RADIATION**  
**ENERGY PRODUCTIVITY AND POLLUTION PREVENTION BRANCH**

Number	Estimated cost of work	Summary description of work
1-11	\$ 32,191	Perform analysis and evaluation of residential space conditioning technologies. Specifically, (1) review peer review comments on "Space Conditioning: the Next Frontier," (2) perform analytical work necessary to update and address peer review comments, (3) produce final draft, and (4) produce camera-ready report.
1-18	\$ 14,852	Provide editorial and graphic support for branch. Work assignment canceled after the expenditure of \$5,863.*
1-19	\$ 9,878	Perform assessment of the impacts of successful electricity demand side management programs. Specifically, (1) provide information on electricity prices and purchases of capital equipment, (2) project changes in gross national product, and (3) verify analysis using U.S. energy model.
1-39	\$ 24,938	Provide assistance in producing high-quality and effective communication materials for outreach, education, and recruiting efforts.
1-49	\$ 29,981	Provide analytical support for the U.S. action plan on climate change. Specifically, (1) identify experts on national industrial-sector energy usage and conservation opportunities, (2) project residential sector energy usage and conservation opportunities, and (3) perform residential sector analysis and program design support.

\*Work assignment 18 was canceled by EPA after an internal review detected that the assignment did not comply with contracting policy or could be misinterpreted to not be in compliance because the services appeared to be "personal services."

**WORK ASSIGNMENTS CONTRACT 68D20178**  
**GLOBAL CHANGE DIVISION, OFFICE OF AIR AND RADIATION**

**TECHNOLOGIES AND SUBSTITUTES BRANCH**

Number	Estimated cost of work	Summary description of work
1-24	\$ 29,981	Organize and hold a national conference on chillers to provide building owners with full information to make choices for cooling systems.
1-45	\$ 37,580	Provide additional analyses of "super-efficient" technologies in refrigerators for the United States and developing countries. Specifically, (1) modify the EPA Refrigerator Analysis (ERA) model to simulate the energy consumption of a single door refrigerator, (2) obtain detailed energy test data from industry sources and evaluate the actual test results to simulated results using the ERA model, (3) use the ERA model to provide technical expertise on technologies to eliminate CFCs and increase energy efficiency to other technical experts, and (4) receive draft report from EPA and prepare an outline of the required text charts; line, pie, and bar charts; schematic drawings; enhanced photographs; and format for the report.

WORK ASSIGNMENTS CONTRACT 68D20178  
GLOBAL CHANGE DIVISION, OFFICE OF AIR AND RADIATION

TECHNOLOGIES AND SUBSTITUTES BRANCH

Number	Estimated cost of work	Summary description of work
1-46	\$209,934	Provide support to EPA projects to identify and assist opportunities to improve the efficiency of household appliances and reduce emissions of greenhouse gases. Specifically, (1) evaluate sales and distribution information for refrigerators in China; (2) develop means to investigate the criteria consumers in China use to make purchasing choices about appliances; (3) assess the structure and regulatory environment for power generation and distribution in up to three countries; (4) organize and sponsor up to 8 major and 12 smaller meetings with key appliance manufacturers, researchers, and regulators in both the United States and China; and (5) produce graphics to support all tasks under this work assignment.

**WORK ASSIGNMENTS CONTRACT 68D20178  
GLOBAL CHANGE DIVISION, OFFICE OF AIR AND RADIATION**

**GLOBAL CHANGE DIVISION**

Number	Estimated cost of work	Summary description of work
1-9	\$ 29,843	Provide graphics and editing support for multimedia presentations to publicize the Green Lights and Green Buildings Programs. Specifically, (1) design and produce slide show and multimedia disc for recruiting senior officials to join Green Lights and Green Buildings, (2) evaluate story boards provided by EPA and propose improvements to illustrate the message, (3) prepare draft and final presentation to educate viewers about the benefits of these programs, (4) provide training for EPA staff to use the multimedia software, and (5) produce master and 500 copies of a 50-page presentation document.
1-10	\$ 29,843	Plan and coordinate a conference of officials who want their organization to join the Green Lights and Buildings Programs. Specifically, (1) prepare educational materials for the conference; (2) organize and prepare mailings of the presentation and accompanying educational materials; and (3) plan, organize, and sponsor the conference.
1-12	\$ 33,622	Evaluate possible strong interest in policies related to least cost electricity generation and analyze the benefits of significant shifts in corporate purchasing behavior. Work assignment canceled after \$855 spent.*

\*Work assignment 12 was canceled when the administration proposed a Btu tax. Work assignment 12 was for the analysis of a carbon tax.

WORK ASSIGNMENTS CONTRACT 68D20178  
GLOBAL CHANGE DIVISION, OFFICE OF AIR AND RADIATION

GLOBAL CHANGE DIVISION

Number	Estimated cost of work	Summary description of work
1-21	\$ 29,843	Provide graphic support for the division. Specifically, (1) provide graphics products for briefings and presentations and (2) duplicate slides previously prepared for the division. Work assignment canceled after \$16,897 spent. <sup>b</sup>
1-41	\$ 73,432	Prepare graphic products, information documents, and graphics filing system to support pollution-prevention programs.

<sup>b</sup>Work assignment 21 was canceled by EPA after an internal review detected that the services did not comply with contracting policy or could be misinterpreted to not be in compliance because they appeared to be "personal services."

WORK ASSIGNMENTS CONTRACT 68D20178  
GLOBAL CHANGE DIVISION, OFFICE OF AIR AND RADIATION

STRATOSPHERIC OZONE PROTECTION DIVISION

Number	Estimated cost of work	Summary description of work
1-25	\$ 35,369	Plan conference to train persons who manage and maintain building air conditioning equipment. Specifically, (1) prepare draft conference modules, (2) prepare final conference modules, (3) present workshop modules and answer questions from workshop audience, (4) moderate roundtable presentations in both French and English, (5) propose evaluation approach for evaluating the effectiveness of the conference, (6) produce and assemble participants' notebooks, (7) prepare draft examination, (8) grade examination, (9) analyze and report on conference effectiveness, and (10) travel to Mexico to perform the above tasks.
1-29	\$ 34,954	Plan and prepare for conferences on reducing the emission of ozone-depleting solvents. Specifically, (1) identify conference sites and make logistical arrangements, (2) provide on-site assistance to ensure that conference proceeds smoothly, (3) moderate roundtable presentations by manufacturers of alternatives and substitutes, (4) propose evaluation approach to evaluate the effectiveness of the conferences, (5) produce and assemble participants' notebooks for conferences, (6) analyze and report on conference effectiveness, and (7) travel to Malaysia to attend conference.

WORK ASSIGNMENTS CONTRACT 68D20178  
GLOBAL CHANGE DIVISION, OFFICE OF AIR AND RADIATION

STRATOSPHERIC OZONE PROTECTION DIVISION

Number	Estimated cost of work	Summary description of work
1-31	\$ 20,724	Evaluate new substitutes under the developing Significant New Alternatives Policy (SNAP) Final Rulemaking and continue outreach efforts of the SNAP Program. Specifically, (1) conduct screening assessment of the human health and environmental risks associated with the use of selected potential alternatives; (2) conduct assessment of the potential atmospheric and human health effects associated with selected substitutes for ozone-depleting compounds; (3) support significant new alternatives policy outreach functions, including graphic products for use in meetings with industry; (4) maintain and update list of those interested in receiving information when it is published; (5) coordinate mass mailings; and (6) maintain and operate the portion of the Stratospheric Ozone Hotline dealing with program questions.
1-32	\$ 31,777	Plan and conduct a conference to speed the elimination of ozone-depleting substances in China. Specifically, (1) provide on-site assistance to ensure that logistics and registration proceed smoothly in China, (2) propose evaluation approach in which EPA may best evaluate effectiveness of conference, (3) revise evaluation approach based on EPA comments, (4) analyze and report on conference effectiveness, and (5) travel to China to perform tasks.



WORK ASSIGNMENTS CONTRACT 68D20178  
GLOBAL CHANGE DIVISION, OFFICE OF AIR AND RADIATION

STRATOSPHERIC OZONE PROTECTION DIVISION

Number	Estimated cost of work	Summary description of work
1-33	\$ 14,878	Plan and conduct Montreal Protocol technology and economic assessment work groups. Specifically, (1) prepare information materials to describe membership, procedures, terms of reference; (2) organize and prepare mailing of logistical and technical information for assessment members; (3) plan, organize, and provide logistical support for meetings; (4) make all logistical arrangements for the meetings; and (5) provide on-site logistics support. Work assignment canceled after \$1,135 had been spent. <sup>a</sup>

<sup>a</sup>Work assignment 33 was canceled because other work took precedence.

**WORK ASSIGNMENTS CONTRACT 68D20178**  
**GLOBAL CHANGE DIVISION, OFFICE OF AIR AND RADIATION**

**STRATOSPHERIC OZONE PROTECTION DIVISION**

Number	Estimated cost of work	Summary description of work
1-34	\$119,923	Provide support to develop and implement regulations for implementing the stratospheric ozone-protection programs. Specifically, (1) revise two working drafts on foams and aerosols to incorporate comments received; (2) evaluate labeling petitions, (3) revise final report in support of section 608 of Title VI, Clean Air Act, to respond to EPA's comments; (4) prepare 10 case studies of companies that have retrofitted to alternative refrigerants; (5) develop a slide show presenting issues of refrigerant management; (6) perform scoping exercise on developing a decision document to be used by owners of refrigeration and air conditioning equipment; (7) review production and transformation reports for carbon tetrachloride; (8) modify the tracking system to streamline data reports; (9) provide written document recording the statements given at public hearings; (10) maintain hotline and mailing lists; (11) maintain and update mailing lists; (12) prepare and distribute brochure on chlorofluorocarbons (CFC) recycling campaign; (13) distribute brochure; and (14) provide outreach material.
1-36	\$ 6,908	Provide support to organize the 1993 International CFC Conference. Specifically, prepare mailing and faxboard for award application forms.

WORK ASSIGNMENTS CONTRACT 68D20178  
GLOBAL CHANGE DIVISION, OFFICE OF AIR AND RADIATION

STRATOSPHERIC OZONE PROTECTION DIVISION

Number	Estimated Cost of Work	Summary description of work
1-37	\$ 6,908	Provide support for the 1211 Recharge/Recovery training followup. Specifically, (1) organize and conduct follow-up activities for halon recharge/recovery training workshops, (2) inform participants of ongoing training, (3) address questions, (4) coordinate information mailing to participants, (5) schedule workshops, (6) arrange for Spanish translation of material, (7) set up mailing lists, and (8) distribute material.
1-40	\$ 22,313	Provide support for the technical assistance activities to reduce emissions of ozone-depleting substances in Mexico. Specifically, (1) research purchase and use of chillers in Mexico, (2) develop marketing and outreach strategies, (3) travel to Mexico to provide technical assistance to Northern Telecom and World Environmental Center representatives, (4) identify eligible companies for funding under the Montreal Protocol, (5) provide technical assistance for up to 20 funding applicants specified by EPA, and (6) review grant agreements.

WORK ASSIGNMENTS CONTRACT 68D20178  
GLOBAL CHANGE DIVISION, OFFICE OF AIR AND RADIATION

STRATOSPHERIC OZONE PROTECTION DIVISION

Number	Estimated cost of work	Summary description of work
1-42	\$ 54,159	Support activities for up to five workshops on halon recharge/recovery training and other projects to reduce halon emissions in China. Specifically, (1) provide technical assistance on projects to reduce halon emissions in China and (2) provide technical assistance and logistical support for China Halon Recharge/Recovery Training Workshops.
1-43	\$ 24,178	Provide support for EPA's Halon 1211 Management Project. Specifically, for Venezuela, Panama, and Ecuador (1) perform assessment to determine number of recharge/recovery machines required; (2) prepare draft documents outlining the procedures for processing investment projects through the World Bank; (3) research and document up to five funding applications from aerosol manufacturers; (4) perform on-site support in Venezuela, Panama, and Ecuador to assist in executing aerosols projects.

Note: Work assignments issued by the Stratospheric Ozone Protection Division pending the award of its own contract.

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