

NUREG/BR-0081



**United States
Nuclear Regulatory Commission**

A Directory of High-Technology 8(a) Firms

Office of Small and Disadvantaged Business
Utilization/Civil Rights

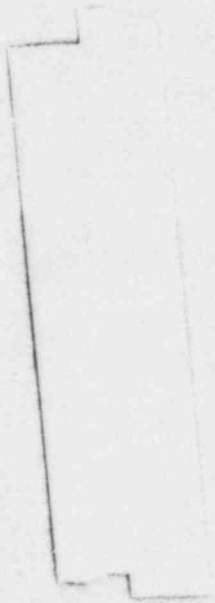
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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

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ABSTRACT

The passage of Public Law 95-507 in October 1978 and the issuance of the Executive Order of July 14, 1983, which mandates all federal agencies to establish and implement Minority Business Development Plans, highlights contracting with qualified high-technology 8(a) firms for research and other services as an attractive alternative to the usually lengthy open-competitive procurement. This Directory is designed to assist NRC staff in selecting potential 8(a) contractors for possible award of contractual requirements.

The Directory is organized into two main parts. The first is arranged alphabetically and provides an overview of the qualified 8(a) firms. The overview gives detailed profiles of relevant technical classification data, client contacts, and information on the professional personnel of each firm. The second is divided into 31 specific technical classification areas. The second part arranges the material provided in the first part and places each firm in the relevant areas of technical classification.

This Directory does not include all qualified 8(a) firms. It contains information only on those firms that NRC has sought out who appear to have the capability of performing in 31 of NRC's most often recurring high-technology areas. However, this Directory will be updated as additional qualified 8(a) firms become available.

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Fire Protection	7
Geology/Geotechnical Engineering	8
Health Physics	9
Human Factors Engineering	10
Hydrology	11
Materials/Metallurgy	12
Mechanical Engineering	13
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GUIDE TO USE OF THE DIRECTORY

This Directory is organized into two major groupings. The first part gives an overview of the high-technology 8(a) firms available to NRC staff in alphabetical order. Within this overview a profile of each firm's history, capabilities, experience, 8(a) status, and track record is broadly outlined. Each profile includes the following information. Note that although a majority of the firms included in this Directory are 8(a) certified, a limited number were in the process of 8(a) certification at the time of this writing.

The first page gives

- Technical classification numbers for each firm referring to the 31 technical classification areas chosen by NRC
- Identification information (name of firm, address, telephone number, year founded, 8(a) status, principal officer)
- Various indicators of financial stability (dollar volume, growth pattern, etc.) provided by the firms
- Indicators of the firm's size (number of professional staff)
- Capabilities and experiences of firm (major and minor fields) and number of contracts (during past 5 years unless otherwise noted)
- Descriptions of facilities and equipment available (on site and off site)

Each firm has

- An overview page (noted on technical classification line), which is a compilation of all available information
- A regular profile, by technical classification, with the number of contracts referring to the technical area only

The second page gives

- Clients, contacts, and telephone numbers (repeat clients and single-time clients)
- Education, experience, and fields of principal staff
- A note section used to expand on professional staff's experiences or on corporate capabilities

Each firm has

- An overview second page that compiles all available information
- A regular profile second page that contains clients in the technical field only (in some cases, however, the clients are the same for all fields)

See Table 1 for the alphabetic listing of firms and corresponding overview page in the Directory.

The second part groups the 8(a) firms described in the overview section into 31 technical classification areas chosen by the NRC staff, generally taken from the firms' corporate capability statements. At the time of this compilation, however, no certified 8(a) firms were located with capabilities or experience in four technical areas: materials/metallurgy (12), nuclear fuel (17), nuclear reactor (18), and radioactive materials (21). See Table 2 for the listing of firms by technical classification areas and by other cross-referenced areas.

Table 1 List of Firms

Firms	Overview Page
AHS Inc.	14
Applied Systems Institute, Inc.	16
Automation Counselors, Inc.	18
Avila Associates, Inc.	20
Bryant Associates	22
Chi Associates, Inc.	24
Cor, Inc.	26
Del Green Associates, Inc.	28
Delon Hampton & Associates, Inc.	30
E. H. White & Co., Inc.	32
Energy and Environmental Engineering, Inc.	34
Energy Resources & Planning Inc.	36
Energy Systems Engineering, Inc.	38
Engineering Analysis & Test Company	40
Engineering & Economics Research, Inc.	42
Enviroscience, Inc.	44
Evaluation Technologies Incorporated	46
Gaylord & Associates Corporation	48
Geo/Resource Consultants	50
Geo-Technical Services, Inc.	52
Infotec Development Incorporated	54
Jalords, Incorporated	56
John E. Foster and Associates, Inc.	58
Lund, Inc.	60
Meriji Resource Consultants	62
Mobility Systems and Equipment Company	64
Nero and Associates, Inc.	66
Paul Parks and Associates, Inc.	68
Princeton Economic Research Institute, Inc.	70

Table 1 (Continued)

Firms	Overview Page
Professional Analysts, Inc.	72
RJO Enterprises	74
Scientific Systems	76
Statistica, Inc.	78
Technology Applications, Inc.	80
The Maxima Corporation / Analytic Systems Division	82
Trans Systems Corporation	84
Urbitran Associates, Inc.	86
Viking Energy Corporation	88
Waste & Water International	90
Wch Industries, Inc.	92
Wilson & Associates, Inc.	94
Wilson Hill Associates	96

Table 2. Cross-Reference of Firms by Technical Classification Areas

Firm by Technical Classification	Other Technical Classification(s)
1. Chemical Engineering	
Energy and Environmental Engineering Inc.	6, 30, 31
Technology Applications	3, 13
Wch Industries, Inc.	2, 6, 30
2. Civil Engineering	
AMS Inc.	13, 16, 29
Avila Associates Inc.	3, 11, 28
Bryant Associates	6, 7, 29
DeLon Hampton & Associates, Inc.	6, 8, 28
Enviroscience, Inc.	6, 11
Geo-Technical Services	10, 20
John E. Foster and Associates, Inc.	6, 13, 28
Meiji Resource Consultants	6, 8
Paul Parks and Associates, Inc.	6, 28
Urbitran Associates, Inc.	6, 11, 29
Wch Industries, Inc.	1, 6, 30
Wilson & Associates, Inc.	3, 13, 31
3. Electrical Engineering	
Avila Associates Inc.	2, 11, 28
Energy Systems Engineering, Inc.	7, 13
Infotec Development Incorporated	4, 8
Jalords, Incorporated	13

Table 2 (Continued)

Firm by Technical Classification	Other Technical Classification(s)
3. Mechanical Engineering (continued)	
RJO Enterprises	4, 5
Technology Applications, Inc.	1, 13
Wilson & Associates, Inc.	2, 13, 31
Wilson Hill Associates	4
4. Electronics Engineering	
E. H. White & Co., Inc.	16, 30
Gaylord & Associates Corporation	13
Infotec Development Incorporated	3, 8
RJO Enterprises	3, 5
Wilson Hill Associates	3
5. Emergency Planning	
RJO Enterprises	3, 4
6. Environmental Impacts	
Bryant Associates	2, 7, 29
Chi Associates, Inc.	25, 27, 28
Cer, Inc.	11, 31
Del Green Associates, Inc.	None
Delon Hampton & Associates, Inc.	2, 8, 28
Energy and Environmental Engineering, Inc.	1, 30, 31
Engineering & Economics Research, Inc.	10, 19, 20
Enviroscience, Inc.	2, 11

Table 2 (Continued)

Firm by Technical Classification	Other Technical Classification(s)
6. Environmental Impacts (continued)	
Geo/Resource Consultants	8, 26, 30
John E. Foster and Associates, Inc.	2, 13, 28
Meiji Resource Consultants	2, 8
Mobility Systems and Equipment Company.....	13, 28, 29
Nero and Associates, Inc.	None
Paul Parks and Associates, Inc.	2, 28
Professional Analyst, Inc.	8, 14
Trans Systems Corporation	20, 23, 29
Urbitran Associates, Inc.	2, 11, 29
Waste & Water International	11, 30
Wch Industries, Inc.	1, 2, 30
7. Fire Protection	
Bryant Associates	2, 6, 29
Energy Systems Engineering Inc.	3, 13
8. Geology/Geotechnical Engineering	
Delon Hampton & Associates, Inc.	2, 6, 28
Geo/Resource Consultants	6, 26, 30
Infotec Development Incorporated	3, 4
Meiji Resource Consultants	2, 6
Professional Analysts, Inc.	6, 14
9. Health Physics	
Automation Counselors, Inc.	27, 29

Table 2 (Continued)

Firm by Technical Classification	Other Technical Classification(s)
10. Human Factors Engineering	
Engineering & Economics Research, Inc.	6, 19, 20
Evaluation Technologies Incorporated	27
Lund, Inc.	None
The Maxima Corporation/Analytic Systems Division	19, 24
11. Hydrology	
Avila Associates, Inc.	2, 3, 28
Cor, Inc.	6, 31
Enviroscience, Inc.	2, 6
Geo-Technical Services	2, 20
Orbitran Associates, Inc.	2, 6, 29
Waste & Water International	6, 30
12. Materials/Metallurgy	
13. Mechanical Engineering	
AMS Inc.	2, 16, 29
Energy Resources & Planning Inc.	23, 28
Energy Systems Engineering, Inc.	3, 7
Gaylord & Associates Corporation	4
Jalords, Incorporated	3
John E. Foster and Associates, Inc.	28
Nobility Systems and Equipment Company.....	6, 28, 29
Technology Applications, Inc.	1, 3
Viking Energy Corporation	16, 25
Wilson & Associates, Inc.	2, 3, 31

Table 2 (Continued)

Firm by Technical Classification	Other Technical Classification(s)
14. Meteorology	
Applied Systems Institute, Inc.	29
Professional Analysts, Inc.	6, 8
Scientific Systems	15, 19, 27
15. Nondestructive Examination	
Scientific Systems	14, 19, 27
16. Nuclear Engineering	
AMS Inc.	2, 13, 29
E. H. White & Co., Inc.	4, 30
Engineering Analysis & Test Company	26, 30
Viking Energy Corporation	13, 25
17. Nuclear Fuel	
18. Nuclear Reactor	
19. Probabilistic Risk Assessment	
Engineering & Economics Research, Inc.	6, 10, 20
Princeton Economic Research Institute, Inc.	22, 27
Scientific Systems	14, 15, 27
The Maxima Corporation/Analytic Systems Division	10, 24

Table 2 (Continued)

Firm by Technical Classification	Other Technical Classification(s)
20. Quality Assurance	
Engineering & Economics Research, Inc.	6, 10, 19
Trans Systems Corporation	6, 23, 29
21. Radioactive Materials	
22. Regulatory Analysis	
Princeton Economic Research Institute Inc.	19, 27
23. Reliability	
Energy Resources & Planning Inc.	13, 28
Trans Systems Corporation	6, 20, 29
24. Safeguards	
The Maxima Corporation/Analytic Systems Division	10, 19
25. Safety Analysis	
Chi Associates, Inc.	6, 27, 28
Viking Energy Corporation	13, 16
26. Seismology	
Engineering Analysis & Test Company	16, 30
Geo/Resource Consultants	6, 8, 30

Table 2 (Continued)

Firm by Technical Classification	Other Technical Classification(s)
27. Statistics	
Automation Counselors	9, 29
Chi Associates, Inc.	6, 25, 28
Evaluation Technologies Incorporated	10
Princeton Economic Research Institute, Inc.	19, 22
Scientific Systems	14, 15, 19
Statistica, Inc.	None
28. Structural Engineering	
Avila Associates, Inc.	2, 3, 11
Chi Associated, Inc.	6, 25, 27
Delon Hampton & Associates, Inc.	2, 6, 8
Energy Resources & Planning Inc.	13, 23
John E. Foster and Associates, Inc.	2, 6, 13
Mobility Systems and Equipment Company.....	6, 13, 29
Paul Parks and Associates, Inc.	2, 6
29. Transportation	
AMS Inc.	2, 13, 16
Applied Systems Institute Inc.	14
Automation Counselors, Inc.	9, 27
Bryant Associates	2, 6, 7
Mobility Systems and Equipment Company.....	6, 13, 28
Trans Systems Corporation	6, 20, 23
Urbitran Associates, Inc.	2, 6, 20

Table 2 (Continued)

Firm by Technical Classification	Other Technical Classification(s)
30. Waste Management	
E. H. White & Co., Inc.	4, 16
Energy and Environmental Engineering, Inc.	1, 6, 31
Engineering Analysis & Test Company	16, 26
Geo/Resource Consultants	6, 8, 26
Geo-Technical Services, Inc.	2, 11
Waste & Water International	6, 11
Web Industries, Inc.	1, 2, 6
31. Water Chemistry	
Cor, Inc.	6, 11
Energy and Environmental Engineering, Inc.	1, 6, 30
Wilson & Associates	2, 3, 13



OVERVIEW

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: OVERVIEW (see also 2, 13, 16, 29)

Company Name: AMS Inc.

Address: 8401 Corporate Drive, Suite 610
Landover, Maryland 20785

Telephone: (301) 459-9100

Year Founded: April, 1977

8(a) Status: Certified

Principal Name: Carlton H. Joseph

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$400,000; Dollar Volume, 1983: \$2.0 million
Growth Pattern: 21% one-year increase in dollar volume in 1980; 9%
in 1981; no growth in 1982; and 80% increase in 1983.

No. Professional Staff: Full-time 30

Part-time 6

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Civil Engineering.....	7
(2) Mechanical Engineering.....	1
(3) Nuclear Engineering.....	*
(4) Transportation.....	15

Minor Fields:

No. of Contracts

(1) Pipe Stress/Pipe Material.....	1
(2) Electrical.....	1

Repeat Clients:

- o Department of Transportation, J. Durham (202) 426-4022
- o U.S. Corps of Engineers
- o Federal Highway Admin., H. Lum (703) 285-2021

Facilities: On-Site--

- o 3,500 square feet of office space.
- o Micro computers (Apple and DEC V100)

Access To--

- o IBM 370 Model 195 computer and working relationship with several A.E. firms.
- o Many engineering computer programs covering many areas.
- o IBM 4300, PDP 11 VAX.

Single-time Clients:

- o Department of Commerce, J. Faruki (202) 377-3548
- o McDonnell Douglas Automation Company, G. Farnady (703) 573-4100

*Based on staff's experiences and fields

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Details of Professional Staff:

Name: Carlton H. Joseph, President
Degree: M.S., Engineering Administration
Years Experience: 10
Fields: Computer Science

Notes:

- o Completed all graduate course requirements for a M.S. in computer science. Has for six years been intimately involved in the development and implementation of Information Systems. Responsible for the development and implementation of the Management Information System for the Washington METRO Subway System and WMTA. Was principal project planner for the 906 MW Davis Besse Nuclear unit. Responsible for the design, development and implementation of the start-up testing network-based information system; also, start-up engineering planner for the 8567 MW Millstone Nuclear unit and was computer support analyst for two other units. In this capacity has conducted many environmental studies and has engaged in research projects pertaining to environmental matters. Also assisted in the development of a cost/schedule network based information integrated system for the Potomac generating station.

Name: Mohammed R. Shah, P.E.
Degree: B.S. Civil Engineering; M.S. Structural Engineering
Years Experience: 17
Fields: Civil Engineering; Structural Engineering

Notes:

- o Was responsible for the design and cost evaluation of gravity and reinforced concrete dams. Supervised construction of industrial and commercial buildings, designed reinforced concrete bridges and elevated water tanks and prepared monthly progress reports. Was responsible for design and analysis of some parts of the reactor building for Eastern Nuclear Unit and Brunswick Nuclear Unit. Designed some parts of the drywell and towers, and wrote design criteria for the reactor building with special emphasis on AEC requirements and latest codes. Group leader on PWR Davis Besse Nuclear Units 2 and 3 responsible for "Balance of Plant." Supervised work of ten engineers; geotechnical and environmental reports and wrote specifications for the Safety Analysis Report.

Name: Jack H. Kemeny
Degree: B.Sc. Management Systems & Personnel; B.S. Aerospace Eng.
Years Experience: 18
Fields: Cost Engineer

Notes:

- o Aerospace Engineering subfields -- fluid dynamics and aircraft structural & propulsion design. As cost/schedule supervisor, was responsible for supervision of cost and schedule for a number of nuclear power plant projects. Served as cost/schedule Supervisor on the 900 MW Davis Besse Nuclear Plant construction and on a previous 2-unit fossil and 1-unit nuclear power project.

Name: Bing Nan Feng
Degree: B.S., Civil Engineering; M.S. Structural Engineering
Years Experience: 17
Fields: Structural Engineering

Notes:

- o Responsible for structural design and analysis of concrete and steel structures for commercial, industrial and office and apartment buildings, bridges, and highways. As senior engineer, was responsible for design and analysis of structures for a laboratory, nuclear fuel process plant and a fossil fueled power plant. Responsible for design and analysis of structures with special emphasis on loadings.

Notes:

- o In addition to details above, staff also includes:
 - Electrical Engineer
 - Industrial Engineer
 - Nuclear Engineer
 - Civil Engineers (2)
 - Environmental System Engineer
 - Economist

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: OVERVIEW (see also 14, 29)

Company Name: Applied Systems Institute, Inc.

Address: 1910 K Street, N.W., Suite 600
Washington, D.C. 20006

Telephone: (202) 785-0920

Year Founded: December, 1977

8(a) Status: Certified

Principal Name: Duk-Joong Won

Title: President

Average Gross Receipts (3 yrs):

Growth Pattern: 248% one-year increase in dollar volume in 1979;
204% in 1980; no growth in 1981; and 117% in 1982.

No. Professional Staff: Full-time 30

Part-time 5

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

- | | |
|--|------------------|
| (1) Meteorology (High Resolution Data Processing)..... | 3 (subcontracts) |
| (2) Transportation (Data Processing)..... | 9 |

Minor Fields:

- | | |
|------------------------------------|----------------------|
| (1) Human Factors Engineering..... | * |
| (2) Statistics..... | 80% of all contracts |

Facilities: On-Site--

- o 5,800 square feet of office space, large conference room and library.
- o In-house computer (DEC VAX 750).
- o Working library containing 2,000 volumes of references, professional journals and up-to-date statistical information.

Access To--

- o On-line independent computer capabilities utilizing major time sharing systems
- o Dependent capabilities employing client computers.

*Based on professional staff's experiences and fields

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o U.S. Department of the Navy, T. Gattis (202) 767-2347
- o Federal Aviation Administration, G. Mercer (202) 426-3103

Details of Professional Staff:

Name: Duk-Joong Won, President

Degree: Ph.D., Resource Economics

Years Experience: 17

Fields: Optimization techniques, econometrics, project and small business management, management information systems.

Name: Phillip S. Lee, Senior Vice President

Degree: M.S., Computer Science

Years Experience: 13

Fields: Real-time systems; scientific programming and design; development, installation of real-time turn-key systems, file management and direct executable compiler; meteorological ground station using various minicomputers and micro-processors.

Name: Benjamin J. Loree, Vice President

Degree: M.B.A.; M.S., Astronautics, D.B.A

Years Experience: 22

Fields: Program management; system engineering; and development of large-scale, integrated information systems; MIS design and development; problem solving; economics, energy programs; military command and control; aviation/space, human factors and military RDTSE and weapon system acquisition.

Name: Joe W. Lee, Sr. Economist

Degree: Ph.D, Business Administration

Years Experience: 30

Fields: Regional economics and demographic projections; statistical modeling; input-output analysis; feasibility studies.

Single-time Clients:

- o Peoples Republic of China (sponsored by the United Nations)
- o Secretary of Transportation, J. Duda (202) 426-0975
- o National Maritime Administration, R. Walker (202) 377-4425

Notes:

o Other staff capabilities:

- Statistics.
- Mathematical analysis.
- Data and file organization and management
- Program and system optimization and enhancement.
- System management and modification.
- Designing and implementing new computer systems.
- Economic and demographic analysis.
- Forecasting at both the national and regional levels.

o System and software engineering:

- Meteorological high resolution data processing.
- Image processing.
- Navy SPADS system.
- Automatic picture transmission.
- Telemetry data processing.
- High speed mass storage controller.
- Real-time communications processings.
- Information-on-demand systems.
- Data base management system.
- Mini-computer site management
- Computerized weather satellite information.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: OVERVIEW (see also 9, 27, 29)

Company Name: Automation Counselors, Inc.

Address: 5728 Industry Lane
P.O. Box 511
Frederick, Maryland 21701

Telephone: (301) 663-3700
(301) 428-2228

Year Founded: 1970

8(a) Status: Certified

Principal Name: Ross Benitez

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$600,000

Average Annual Growth Rate: 30%

Growth Pattern: 50% one-year increase in dollar volume in 1982

No. Professional Staff: Full-time 20

Part-time 4

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:*

- | | |
|--|---|
| (1) Health Physics (Data Processing Support)/
Statistics..... | 2 |
| (2) Transportation..... | 3 |

Facilities: On-Site--

- o 7,400 square feet of office space (2,000 subleased) of modern brick office building includes corporate, management, technical and computer facilities.
- o IBM System 36.
- o Several IBM - PCS.

Minor Fields:

Access To--

*Over one hundred other clients have been provided, in technical areas not relevant to NRC's indicated needs, (technical assistance in software development, system deficiency evaluations; and management, ranging from needs assessment to staff training).

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Naval Medical Research Institute, Dr. Matthews (202) 295-1121
- o U.S. Department of Transportation, Dr. Paul Irick (202) 424-9473

Details of Professional Staff:

Name: Nosa Benitez
Degree: B.A., Education
Years Experience: 22
Fields: Data processing.

Name: Susan Benitez
Degree: Undergraduate work, Mathematics
Years Experience: 22
Fields: Data processing; programming systems development (financial).

Single-time Clients:

- o State Department of Transportation:
 - Indiana, Kim Todd (415) 838-2088
 - Maine, Ron Emery (207) 289-3223
 - Maryland, Connie Ridgway (301) 442-2700
 - Michigan, George Wentz (303) 695-7552
 - New Mexico, Bob Ringer (505) 983-0240
 - Oregon, Lance Stapleton (503) 378-2534

Notes:

- o Provides data processing services to private industry and government agencies.
- o Applies personalized computer consulting and software services to improve the operations of both large and small clients.
- o Four divisions:
 - Local government -- providing state, county and city entities with a broad range of ADP consulting capabilities.
 - Scientific systems -- offering computer science and consulting skills to support professional staff.
 - Information Services Division -- providing for the information dissemination needs of governmental agencies.
 - Management Information Systems Division -- consulting to meet applications systems requirements.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: OVERVIEW (see also 2, 3, 11, 28)

Company Name: Avila Associates Inc.

Address: 6650 W. Northwest Highway, Suite 202
Chicago, Illinois 60631

Telephone: (312) 763-6570

Year Founded: 1975

8(a) Status: Certified

Principal Name: Manual Frank Avila

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$130,000

Growth Pattern: After a period of minimal change, since 1979,
there was a 31% one-year increase in dollar
volume in 1982.

No. Professional Staff: Full-time 5

Part-time

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Civil Engineering.....	17
(2) Electrical Engineering.....	2
(3) Hydrology.....	7
(4) Structural Engineering.....	15

Facilities: On-Site--

- o 400 square feet storage area for equipment.
- o 400 square feet for office area.
- o Atari 800 48K (use computers for civil, structural and electrical designs).

Access To--

- o Another firm's IBM 370 on contractual basis.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Illinois Department of Transportation
- o CRS Group Engineers, Inc., A. E. Bredit (312) 297-0400
- o Homer L. Chastion & Associates, W. A. Frick (217) 422-8544
- o Illinois Institute of Technology, L. E. Rolter (312) 567-4707

Details of Professional Staff:

Name: Manuel Frank Avila, P.E.
Degree: B.S.; M.S.
Years Experience: 15
Fields: Civil Engineering; Finance

Name: Robert O. Wesnick
Degree: B.S.
Years Experience: 23
Fields: Civil Engineering

Name: Alfred Bustamonte
Degree: B.S.
Years Experience: 15
Fields: Mechanical Engineering

Name: Francisco Brana "Nalero"
Degree: Ph.D.
Years Experience:
Fields: Chemical Engineer; Operations Research & Energy Management

Single-time Clients:

- o U.S. Department of Interior, Indiana Dunes, E. Eng (219) 926-7561
- o The Peoples Gas, Light & Coke Company, R. J. Dettlefsen (312) 431-4710
- o Department of Public Works (Chicago), H. Ecale (312) 744-3591
- o Chicago Board of Education
- o Municipal Paving Company
- o S. G. Hayes & Company
- o Barton-Ashman Associates, Inc.
- o Illinois Bell Telephone Co.
- o U.S. Army Corps of Engineers
- o The Metropolitan Sanitary District of Greater Chicago (subcontract)
- o Deitz Engineering, CRS (subcontract)
- o Village of Palos Park, IL
- o Federal Highway Administration, P.A. Kopac (703) 285-2011

Notes:

- o Has designed, completed analysis and review of safety related nuclear power pipe supports, etc. Extensive background in FORTRAN which has been used in design projects.
- o Expertise in piping systems design, pressure vessel design, ventilating, air conditioning and machine design.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: OVERVIEW (see also 2, 6, 7, 29)

Company Name: Bryant Associates

Address: 1428 N Street NW, Suite 100
Washington, D.C. 20005

Telephone: (202) 232-5192 or 5193

Year Founded: 1959

8(a) Status: Certified

Principal Name: Andrew D. Bryant

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$892,000

Growth Pattern: 59% one-year increase in dollar volume in 1981 and 54% in 1982.

No. Professional Staff: Full-time 16

Part-time 4

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Civil Engineering.....	3
(2) Environmental Impacts.....	2
(3) Fire Protection.....	2
(4) Transportation.....	4

Minor Fields:

(1) Waste Management.....	5
(2) Water Chemistry.....	5
(3) Hydrology.....	4

Facilities: On-Site--

- o Principal office 2,000 square feet.
- o Branch office in Berkeley, California.

Access To--

- o Main frame computer.

*Based on professional staff's experiences and fields

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Howard University (Dormitory & Library feasibility study),
B. G. Harris (202) 636-7802

Single-time Clients:

- o Federal City College (feasibility study, 1968 joint venture),
C. Ford (Vice President)
- o Bayonne Waste Water Treatment Plant, C. C. Johnson (202) 942-5600
(Consultant)
- o Coney Island Waste Water Treatment Plant, C. C. Johnson
(202) 942-5600
- o Poly Tech, Inc., Consultant (216) 696-3141
- o Central Avenue Shopping Center, J. Horning (202) 659-0700
- o Wheeler Road Shopping Center, C. McKenzie (202) 562-2107

Details of Professional Staff:

Name: Andrew D. Bryant, President
Degree: B.A., Architecture
Years Experience: 25
Fields: Architecture

Name: Daniel D. Kim, Vice President
Degree: M.A., Architecture
Years Experience: 16
Fields: Architecture

Name: Glen A. Cook, Vice President
Degree: B.S., Civil Engineering
Years Experience: 30
Fields: Civil Engineering; operations research

Name: Jerry Y. Fujimoto
Degree: B.A., Architecture
Years Experience: 15
Fields: Architecture

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: OVERVIEW (see also 6, 25, 27, 28)

Company Name: Chi Associates, Inc.

Address: 2045 N. 15th Street
Arlington, VA 22201

Telephone: (703) 558-3400

Year Founded: 1974

8(a) Status: Certified

Principal Name: Michael Chi

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$600,000-\$700,000; 1983: \$650,000

Growth Pattern: Rising slowly, slight fluctuation

No. Professional Staff: Full-time 12

Part-time 6

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Environmental Impacts.....	4
(2) Safety Analysis.....	18
(3) Statistics.....	20
(4) Structural Engineering.....	7

Minor Fields:

(1) Civil Engineering.....	5
(2) Naval Architecture.....	14
(3) Mechanical Engineering.....	2
(4) Transportation.....	1
(5) Hydrology.....	

Facilities: On-Site--

- o Horizon North Star minicomputer.
- o Library of scientific programs on numerical methods and techniques.
- o IBM PC plus printer
- o Commodore Microcomputer
- o Tektronix Graphic equipment
- o NEC microcomputer
- o High speed printer
- o Three CRTs
- o QYX word processor

Access To--

- o Time-sharing terminals and batch processing to IBM 360/65, IBM 370/168, IBM 3031, IBM 3033, CYBER 175, CDC 6700, Burroughs 7700, UNIVAC 1108, DEC-10, DEC-20.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Department of Transportation, L. Cayes, HRS-11
- o Naval Ship R & D, David Taylor
- o Department of Commerce, W. Nelson (919) 728-4595
- o D. C. Department of Transportation, J. McSweeney (202) 727-1293

Details of Professional Staff:

Name: Michael Chi
Degree: Sc.D., P.E.
Years Experience: 30
Fields: Hydraulics; structural dynamics; transportation engineering.

Name: Normal Lutkefедder
Degree: M.S., P.E. Mechanical Engineering
Years Experience: 20+ years
Fields: Energy and environmental systems.

Name: Ramesh H. Vaishnav
Degree: Ph.D.
Years Experience: 25
Fields: Civil engineering; mechanical engineering.

Name: John R. Burke
Degree: M.S. Chemical Engineering
Years Experience: 25
Fields: Space and transportation

Single-time Clients:

- o Department of Health, Education & Welfare, Mr. Zangwill, Health Resources Administration, Bethesda, MD
- o Environmental Protection Agency
- o Prince George's County MD
- o National Data Buoy Office
- o Consolidated Rail Corp. (CONRAIL), C. Cox, Philadelphia, PA
- o Harbridge House, Inc.
- o Pennsylvania Department of Transportation, J. McCoy, Harrisburg, PA
- o Department of Energy

Notes:

o Additional Professional Staff:

- Horton Taragin, Ph.D. Physics; B.S. Engineering
- M. Toby Shams, Ph.D. Physics
- Arthur E. Hirsch, B.S., M.B.A. Biomechanical Engineer, 25+ years
- Jalar Vossoughi, M.S. Civil Engineering, B.S. Mechanical Engineering
- Nopporn Khaewpong, M.S. Structural Engineering
- Richard P. Nalesnik, Ph.D. Public Administration; Technology Management; U.S. Public Communications; B.S. Engineering Management -- held numerous positions at executive level in various federal agencies -- EPA, Interior, Commerce, NASA.
Field: Environmental Systems Management.
- Hugh Y. H. Yeh, M.S. Naval Architecture; Marine Engineering.
Field: Hydrodynamic Research.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: OVERVIEW (see also 6, 11, 31)

Company Name: Cor, Inc.

Address: 105 N. Virginia Avenue
Falls Church, Virginia 22046

Telephone: (703) 534-0011

Year Founded: 1979

8(a) Status: Certified

Principal Name: Pham Chopra

Title: President

Average Gross Receipts (3 yrs):
May be obtained through Dun & Bradstreet, Inc. in
Allentown, PA

No. Professional Staff: Full-time 65

Part-time 2

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Environmental Impacts.....	1
(2) Hydrology.....	2
(3) Water Resource Analysis.....	2

Minor Fields:

(1) Nuclear Engineering.....	*
(2) Nuclear Reactor.....	*
(3) Solar Heating and Cooling.....	1
(4) Energy Management Support.....	1
(5) Engineering Support Services.....	10

Facilities: On-Site--

- o 12,000 square feet of program office space (in Falls Church).
- o Four operations centers (Lexington Park, Maryland; King George, Virginia; San Diego, California; Sierra Vista, Arizona).
- o Branches and field offices in four states.
- o Large and small conference rooms.
- o Xerox copiers and telecopiers.
- o IBM System 36 minicomputer.
- o Three Intertec "Superbrain" microcomputers with Word Processing and other software.
- o DTI terminal.
- o Other equipment.

*Based on experience and education of professional staff.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o U.S. Coast Guard, Richard Spencer
- o Argonne National Laboratory, Department of Energy, Nancy Duncan, ANL
- o U.S. Army Coastal Engineering Research Center Mary Wrenn, CERC
- o Naval Surface Weapon Center, White Oak Lab, Dennis Hunt, NSWC

Details of Professional Staff:

Name: Pham Chopra, President

Degree: PhD (Studies Toward), M.S.E.,
Naval Architecture and Marine Engineering

Years Experience: 17

Fields: Engineering Management, Hydrodynamics

Notes:

- o Over 17 years of progressive engineering management, consulting and research experience. Expertise in the fields of hydrodynamics oceans systems, design ship systems engineering, and sonar systems. Conducted floating nuclear power plant study for Con Edison, major wave force studies, systems design of SPRUANCE CLASS destroyers and diversified R & D projects.

Name: Prem Chopra, Vice President

Degree: PhD, Structural Mechanics

Years Experience: 10

Fields: Nuclear Structures and Design.

Notes:

- o Mr. Chopra has 10 years progressive experience in the area of nuclear (structural thermo-mechanical analysis); reactor system design (concrete vessel and steel liner; the reactor core; the core support structures, fuel handling systems; the control rods and drives system, the reactor cooling system and top closures); analysis and design of upgrade fuel elements for modified TREAT reactor. Also directed a technical team

Single-time Clients:

Details of Professional Staff: (Continued - Prem Chopra)

which refined the STF Reactor Concept and prepared cost elements and schedules. In another assignment was responsible for structural and mechanical analysis of fuel elements and components of the core, the reactor and the steam generation plant.

Name: H. Lawrence Dyer

Degree: PhD (Course work completed) M.S.M.E.

Years Experience: 12

Fields: Energy and Environmental Studies

Notes:

- o Progressive research and management experience in the energy and environmental fields specially regulatory issues. Computer simulation modeling; system component studies for nuclear power, was program director for Reactor Engineering reaction-kinetic studies.

Name: C. A. McComber

Degree: B.A., Business Administration

Years Experience: 24

Fields: Project Management, Computer Systems and Operation

Notes:

- o Extensive project management and management consulting experience for defense agencies and industry. Expertise in organizational, operational and financial planning and quality control of software heavy engineering systems; monitoring and evaluation of performance and productivity improvement.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: OVERVIEW (See also 6)

Company Name: Del Green Associates, Inc. (DGA)

Address: 220 Lincoln Centre Dr.
Foster City, CA 94404

Telephone: (415) 574-4737

Principal Name: Del Green

Title: President

Average Gross Receipts (3 yrs):
Dollar Volume, 1982: \$1,689,951

Year Founded: 1972

8(a) Status: Certified

No. Professional Staff: Full-time 9

Part-time 7 (as needed)

Capabilities and Experience of Firm:

Major Fields:

(1) Environmental Impacts..... 5

Minor Fields:

(1) Environmental Program Evaluation..... 11
(2) Health Effects Research..... 13

Facilities: On-Site--

- o Three offices in California
- o Computerized data system that assists in the analysis of organic compounds at microquality concentrations.

Access To--

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Environmental Protection Agency, John Busik (202) 755-2560

Details of Professional Staff:

Name: Roy M. Neulicht
Degree: B.S., Chemical Engineering
Years Experience: 11
Fields: Air quality emissions testing and continuous monitoring.

Notes:

- o EPA Training Institute - "Continuous Emission Monitoring" (1974) and Government Institutes, Washington, DC - "Environmental Law" (1976).

Name: Alan J. Senzel
Degree: M.B.A., Public Administration; Ph.D., Analytical Chemistry
Years Experience: 16
Fields: Analytical chemistry; regulatory and analytical methods for foods, drugs, pesticides, cosmetics, feeds, fertilizers, hazardous substances, and other materials related to agriculture and public health and welfare.

Notes:

- o Expertise in health effects criteria documentation, including acute and chronic toxicity, carcinogenesis, mutagenesis, and teratogenesis; analytical methodology for toxic substances; evaluation of analytical methodology for determination of trace elements for toxic substances.

Single-time Clients:

- o Food & Drug Administration, Voyce T. Whitley (301) 443-1544
- o Bissell & Karn, Inc., Herbert Crowle (415) 483-2170
- o City of Long Beach, CA, Suad Cano (213) 629-5511

Details of Professional Staff: (Continued)

Name: Irwin J. Weisenberg
Degree: B.M.E., Mechanical Engineering
Years Experience: 13
Fields: Nonferrous smelting, mining, mineral processing, emission control technology for sulfur dioxide, engineering evaluation of ore processing operations, particular collection system design and acid plant technology.

Name: Henry C. Wohlers
Degree: Ph.D., Thermo-Dynamics
Years Experience: 43
Fields: Laboratory research and environmental affairs; environmental problems in Southeast Asia, Europe, South America and the United States.

Notes:

- o Extensive technical publications.

Notes:

- o Other professional staff fields:
 - Environmental Biology
 - Biology (2)
 - Applied Economics
 - Psychology
 - Chemistry
 - Environmental Management
 - Environmental Science
 - Electrical Engineering
 - Human Services

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: OVERVIEW (see also 2, 6, 8, 28)

Company Name: Delon Hampton & Associates

Address: 2000 K Street, NW, Suite 300
Washington, DC 20001

Telephone: (202) 293-3666

Year Founded: 1973

8(a) Status: Certified

Principal Name: Delon Hampton

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1983: \$3.4 million

Growth Pattern: 6% avg. increase since 1979

No. Professional Staff: Full-time 80

Part-time -

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Civil Engineering.....	70
(2) Environmental and Sanitary Impacts.....	39
(3) Geology/Geotechnical Engineering.....	26
(4) Structural Engineering.....	67

Minor Fields:

Facilities: On-Site--

o Offices in Atlanta, Georgia; Chicago, Illinois; Los Angeles, Calif; and Rockville, Maryland (Corporate Headquarters): 15,800 square feet.

o Computer (Digital PD 11) and Word Processor Equipment

Access To--

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Other Clients:

- o Howard University
- o Metropolitan Sanitary District of Greater Chicago
- o Tennessee Dept. of Transportation
- o Washington Metropolitan Area Transit Authority
- o District of Columbia, Dept. of Environmental Services
- o U.S. Environmental Protection Agency
- o Washington Suburban Sanitary Commission
- o Illinois Department of Transportation
- o Montgomery County, Maryland

Details of Professional Staff:

Name: Delon Hampton, President
Degree: Ph.D., Civil Engineering
Years Experience: 23
Fields: Geotechnical Engineering.

Name: R. Varadarajan (Rajan), Vice President
Degree: Ph.D., Structural Engineering
Years Experience: 22
Fields: Structural Engineering.

Name: John M. Zimmer
Degree: B.C.E., Civil Engineering
Years Experience: 19
Fields: Civil Engineering and Transportation

Name: M. G. Menon
Degree: H.S. C.E.
Years Experience: 10
Fields: Structural Engineering

Single-time Clients:

- o U.S. Environmental Protection Agency (Cincinnati, OH)
- o Maryland Department of Transportation
- o Walt Disney Enterprises
- o Maryland State Highway
- o Bi-State Development Agency
- o Capital Gateway Corporation
- o Chesapeake Gateway Corporation
- o National Park Service

Notes:

- o Extensive publications and experience in civil and geotechnical engineering; Registered Professional Engineer in 14 states.
- o Registered Professional Engineer.
- o Registered Professional Engineer in 10 states.
- o Registered Professional Engineer in 2 states.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: OVERVIEW (see also 4, 16, 30)

Company Name: E. H. White & Co., Inc.

Address: 245 Clement Street
San Francisco, CA 94118

Telephone: (415) 668-0076

Year Founded: 1971

8(a) Status: Certified

Principal Name: Earl H. White

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$2 million

Growth Pattern: 33% one-year increase in dollar volume in 1980 and periods of no growth since that time.

No. Professional Staff: Full-time 75

Part-time

Capabilities and Experience of:

Major Fields:

No. of Contracts:

- (1) Electronics Engineering.....*
- (2) Nuclear Engineering.....*
- (3) Waste Management.....*

Facilities: On-Site--

- o Offices in San Francisco and Washington, D.C. have in-house computer and word processing capabilities, reproduction, graphics, and workshop/seminar facilities.
- o Staff in both places have software competence and regularly access national commercial databases.
- o In-house databases construction is extensive, as well as broad knowledge of international information systems.

Minor Fields:

- (1) Electrical Engineering.....*
- (2) Mechanical Engineering.....*
- (3) Seismology.....*

Access To--

- o Both sites have remote access to major computer time sharing systems.

Repeat Clients:

None (in technical areas)

Single-time Clients:

None (in technical areas)

*Technical areas represent a new business direction for the firm and are based solely on professional staff's capabilities and fields. (Provided extensive examples of previous and current large scale and long term contracts mostly in the area of social research.)

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Details of Professional Staff:*

Name: Michael O. Shick
Degree: Ph.D., Physics
Years Experience: 8
Fields: Materials/subsystems testing and evaluation; laser threats and missile vulnerability.

Notes:

- o Worked on projects concerned with: survivability of military systems in prespecified nuclear weapons environment and computational analysis and simulation of material/component response; developed methodology and computer codes to assess vulnerability of missile systems to high energy laser threat; chief consultant to Army Laser Systems Project Office on direction of missile vulnerability program.

Name: Shirish M. Gandhi
Degree: M.S.E.E.; P.E. Engineering
Years Experience: 13
Fields: Engineering; Electrical Power and Control Systems Analyst

Notes:

- o As a consultant and Technical Staff Engineer in the Kansas Gas and Electric Co.'s Nuclear Plant Engineering Department, provided leadership and guidance to a group of 15 process and I.C. Engineers in performance of Design Review, established startup procedures and supported management and coordination of consultants and contractors for the testing of Wolf Creek Nuclear Generating Station; as process engineer researched NRC guidelines and NUREGS and defined instrumentation, channels, tower parameters, computer configurations, peripherals and Nuclear Data Links for design of Emergency Response Facilities, Technical Support Centers and interfaces with Supervisory Control Systems in the Central Control Room. Under the direction of KG&E Nuclear Plant Management participated in writing of technical specifications and review of FSAR for Operating License. Coordinated Mechanical & Electrical Groups. On other projects: provided direction of electrical engineering design, recruitment and supervision of staff; provided consultation, design of power system and Process Control for Refinery and Chemical Plants; analysis and design of Neutral Beam Power Supplies for fusion power research experiments; electrical subsystems power systems.

*Staff language competence in Spanish, French, Italian, German, Arabic, Somali, and two dialects of Chinese.

Details of Professional Staff: (continued)

Name: John W. Childress, III
Degree: M.S. Physics, Mathematics
Years Experience:
Fields: Research geophysics; space mechanics; information systems; telecommunications.

Notes:

- o Taught physics and space mechanics; worked on APOLLO, SURVEYOR, BQS-13, CORA, NIPS, TIPS, MIDAS, DIMUS, FARMDS, S-70, NTDS, ATDS, DAHP, GASLIGHT, Minuteman, 480-L, COR, VLA, HULTEC, LRPA, S3A, MA-10, ASB-1, Sidewinder, MILLARD, THUMPER, AF EDL, and BAMBI. Also, responsibilities on other projects included: hardware and software design architectures; selection and implementation; verification and validation, and operation and maintenance activities; had responsibilities on the A.F. Laboratory Office Network System deployed at Hancomb Field and Rome Air Development Center; completed signal processing for sonar and adaptive HF systems, analysis of intelligence systems and systems analysis. As a Senior Research Geophysicist, a new method of seismic signal enhancement was developed for oil exploration.

Name: Thaddeus W. Usowicz
Degree: Ph.D., Medical Information and Computer Sciences
Years Experience: 24
Fields: Computer Languages (strong in FORTRAN AND PASCAL) database language and assembler; management sciences; computer applications problem solving and planning.

Notes:

- o Project responsibilities included: specification analyses and evaluation of projects with large capital expenditures; design and development of complex computer based patronage forecasting model fare-demand elasticity studies; computer simulation of systems operations; comparative energy consumption studies; development of a fluidic flowmeter (his own device) for bio-medical and other applications; studies of intermodal, inter-operator transit integration practices; studies of private and public transportation on air pollution levels, energy consumption and congestion in major urban areas.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: OVERVIEW (see also 1, 6, 30, 31)

Company Name: Energy and Environmental Engineering, Inc.

Address: 1B Monsignor O'Brien Highway
P.O. Box 215
E. Cambridge, MA 02141

Telephone: (617) 720-3800

Year Founded: October, 1979

8(a) Status: Certified

Principal Name: James H. Porter

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$850,000

Growth Pattern: 1981: 68% one-year growth rate
1982: 30%

No. Professional Staff: Full-time 9

Part-time 10

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Chemical Engineering.....	7
(2) Environmental Impacts.....	3
(3) Waste Management.....	4
(4) Water Chemistry.....	3

Minor Fields:

(1) Water Pollution Abatement Plans.....	1
(2) Nuclear Engineering.....	None*

Facilities: On-Site--

o 2,000 square feet of office space.

o 300 square feet of experimental chemical laboratory space.

Access To--

*See experiences of staff person Avijet Ray.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o U.S. Department of Energy, R. Bruce Webster (412) 675-6245
- o E. I. DuPont
- o Department of Energy Pittsburgh Energy Technology Center
- o National Science Foundation
- o Environmental Protection Agency, - Harry Turno (202) 382-2552
- Don Carey (202) 426-2355

Details of Professional Staff:

Name: James H. Porter, President
Degree: Sc.D.
Years Experience: 25
Fields: Chemical Engineering.

Name: C. Michael Mohr
Degree: Sc.D.
Years Experience: 25
Fields: Chemical Engineering

Name: Ralph A. Horne
Degree: Ph.D. and J.D.
Years Experience: 25
Fields: Physical Chemistry; Marine Chemistry; Law.

Name: Avijet Ray, Manager Environmental Div.
Degree: M.S.
Years Experience: 9
Fields: Chemical Engineering; Nuclear Engineering.

Single-time Clients:

- o General Electric Company
- o Federal Aviation Administration, Ashra Jan (617) 273-7233
- o CSI Resource Systems, Inc., James Binder (617) 542-3970
- o U.S. Coast Guard
- o Roche Bros. Barrel and Drum, Inc.

Notes:

- o Known for the development of new process concepts and for the application of computers for process design and simulation. Has made significant contribution in the fields of fluidization technology, membrane permeation systems; and computerized design and analysis of advanced power cycles. Expert in the design and operation of fluid bed combustors including design of staged fluid used retorting system, the design of fluidized bed steam boilers for oil field flooding, the design and construction of a four foot by nine foot fluid bed steam boiler and the design and testing of TGA facilities for limestone sulfur capture analysis. Extensive publications.
- o Senior Staff Scientist -- prepares environmental impact statements; toxic waste disposal methods; and solar technology expert. As a post-doctoral research associate and fellow, Department of Chemistry and Laboratory for Nuclear Science, MIT, completed fundamental research on radiochemistry and the physical-chemistry solvent extraction and ion exchange.
- o Contribution to research in area of solid waste management in which an in-situ waste containment technology was proposed so as to prevent the flow of leachates from abandoned toxic and hazardous waste sites. Proposed the concept of destruction of toxic chemicals in wastewater by the application of lasers. Also, in area of nuclear engineering, has extensive experience in the treatment of off-gases from nuclear power plants and in nuclear chemistry and radio-chemistry, in particular, the application of radioisotope tracers to physical chemistry and to industrial separation processes including ion exchange and solvent extraction technology.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: OVERVIEW (see also 13, 23, 28)

Company Name: Energy Resources & Planning Inc.

Address: 28 E. Jackson Blvd.
Chicago, IL 60604

Telephone: (312) 922-0220

Year Founded: 1976

Principal Name: N. Paul Sood

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$500,000; 1981: \$860,000; 1980: \$100,000
(all figures are approximate)

Growth Pattern: Two peaks in number of contracts/year;
1983 best year to date.

No. Professional Staff: Full-time 9

Part-time -

8(a) Status: Certified

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Mechanical Engineering.....	5
(2) Reliability.....	22
(3) Structural Engineering.....	12

Facilities: On-Site--

- o Office fully furnished for engineering and drafting.
- o IBM computer with communications capabilities, and automatic drafting capabilities.
- o Blueprinting machine and automatic feed copier with sorter.
- o Library of federal, state and local government codes and standards, NRC guides, and industry standards.

Minor Fields:

Access To--

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o University of Chicago, Dr. Roy Mackal (312) 753-3958
- o Tootsie Roll Ind., John Newlin (312) 581-6100
- o Thornton Community College, Bob Kinsella (312) 596-2000

Details of Professional Staff:

- Name: N. Paul Sood
Degree: M.S., Mechanical Engineering
Years Experience: 16
Fields: Heat transfer; thermal transient analysis; process piping systems.
- Name: Gordi Chadha
Degree: M.S., Structural Engineering
Years Experience: 24
Fields: Substructure and superstructure design of pre-stressed bridges; post-tensioned systems design for nuclear containment vessels.
- Name: Arjun U. Thadhani
Degree: M.S., Mechanical Engineering; ASQC-Certified Quality & Reliability
Years Experience: 14
Fields: Reliability and quality engineering.

Single-time Clients:

- o Baxter-Travenol, David Nevin (312) 940-5660
- o East View Park Condominium Association, Marge McCarthy (312) 643-4600
- o Tollentine Center, Rev. Alfred Tripamer (312) 748-9500
- o University of Chicago, Dr. Roy Mackal (312) 753-3958
- o Lydall, Inc., Dave Clark (203) 646-1233
- o Bagcraft Corporation of America, Bob Blamer (312) 254-8000
- o Mendel Catholic High School, Sam Rayappan (312) 995-3724
- o Commonwealth Edison Corp., Bob Janeczek (312) 294-8314
- o American Bakeries Co., Wayde Nieman (312) 454-7400
- o Bendix Corporation, Bob Bussard (502) 695-2100
- o Abbot Laboratories, Chuck Vanhorn (312) 937-6100
- o Production Tool Corp., Henry Brooks (312) 288-4400
- o Ludlow Specialty Papers, George Stricker (312) 753-1140
- o Gutmann & Company, John Sickle (312) 348-5300

Notes:

- o ERP is approved by Commonwealth Edison, Chicago, and Detroit Edison Company, Detroit, for providing AE services for Nuclear Power Plants.
- o Sood: Has done energy technology reviews for MHD, and research on heat transfer and fluid flow in Advanced Gas-Cooled Nuclear Reactor.
- o Chadha: Level III Inspection Engineer per ACI/ASHE criteria on concrete pressure components for nuclear service.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: OVERVIEW (see also 3, 7, 13)

Company Name: Energy Systems Engineering, Inc.

Address: 10605 Concord Street
Kensington, Maryland 20795

Telephone: (301) 946-6160

Year Founded: January, 1979

8(a) Status: Certified

Principal Name: Jose A. Reig

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$415,000

Growth Pattern: 82% one-year increase in dollar volume in 1981 and
31% in 1982

No. Professional Staff: Full-time 9

Part-time None

Capabilities and Experience of Firm:

Facilities: On-Site--

Major Fields:

No. of Contracts:

(1) Electrical Engineering.....	30
(2) Fire Protection.....	30
(3) Mechanical Engineering.....	30

o 1800 square feet.

o Radio Shack TRS-80 computer and energy analysis software

Minor Fields:

(1) Nuclear Engineering.....	*
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*Based on professional staff's experiences and fields.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o U.S. Navy Facility Engineering Command (Chesapeake Div.),
R. de la Vega (202) 433-4374
- o U.S. Department of the Army (Baltimore District),
F. Timbol (202) 576-3259
- o General Services Administration,
V. Daconov (202) 472-4580

Details of Professional Staff:

Name: Jose A. Reig
Degree: B.S.
Years Experience: 17
Fields: Nuclear Engineering, Mechanical Engineering

Name: Guillermo J. Ramsay
Degree: B.S.
Years Experience: 18
Fields: Electrical Engineer

Name: Udayan Kham
Degree: B.S.
Years Experience: 15
Fields: Electrical Engineer

Single-time Clients:

- o U.S. Navy Facility Engineering Command (Atlantic Division),
G. Heddley (804) 444-9665
- o Department of Justice, H. DeVoe (202) 324-3034
- o Department of Commerce, A. White (301) 921-3825
- o Public Health Service
- o Department of Transportation (U.S. Coast Guard),
T. Clifford (202) 426-1247
- o Architect of the Capital, G. Lukar (202) 225-3350

Notes:

- o Have done testing and design of nuclear reactor fuel assembly
for pressurized water reactors (Babcock and Wilcox)

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: OVERVIEW (see also 16, 26, 30,

Company Name: Engineering Analysis & Test Company (EA&T)

Address: 2054 Broadway
Santa Monica, CA 90404

Telephone: (213) 829-7817

Principal Name: Raymond Perez

Title: President

Average Gross Receipts (3 yrs):

Professional Services Fees - 1980: \$250,000
1981: \$250,000
1982: \$250,000
1983: \$350,000

Year Founded: 1976

No. Professional Staff: Full-time 5

8(a) Status: Certified

Part-time 2

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Nuclear Engineering..... 7
(2) Seismology..... 15
(3) Nuclear Waste Management..... 6

Minor Fields:

Facilities: On-Site--

- o Environmental Test Laboratory (IEEE-323-1974 Equipment Qualification Programs).
- o Portable Field Vibration Test Equipment (IEEE-344-1975 Equipment Qualification Programs).

Access To--

- o Support services contracts with UCLA and CDC for computer time-sharing and analysis program maintenance; Rockwell International Autometrics Division and Structural Dynamics Research Corporation for seismic biaxial and triaxial shake table proof testing capabilities.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Consip Inc., Al Robinson (213) 692-9021
- o Ronan Engineering Company, Peter Rothermel (213) 883-5211
- o Custom Control Panels, Jeff Domeneli (213) 945-6491
- o Bunker Ramo Corporation, John Cameron (213) 341-0710
- o MCC Powers Regulator Company, Robert Neary (312) 677-9580
- o Lawrence Livermore National Laboratory,
Richard Heckman (213) 422-8904

Details of Professional Staff:

Name: Raymond Perez
Degree: B.S., Mechanical Engineering; M.S., Nuclear Engineering
Years Experience: 16
Fields: Nuclear Engineering; Mechanical Engineering; Radiation Waste Management; Safety Analysis; Environmental Analysis; Shielding Analysis; Thermo-Chemical Analysis; Energy Conservation Systems.

Name: Michael B. Perez
Degree: B.A., Economics
Years Experience: 13
Fields: Program Management; Financial Analysis; Cost Accounting; Quality Assurance; Administration; Procurement.

Name: Christina T. Perez
Degree: B.A., Architecture
Years Experience: 10
Fields: Seismic Analysis; Stress Analysis; Equipment Qualification; Structural Design; Environmental Impact Analysis; Facility Design Review.

Single-time Clients:

- o Borg Warner Energy Equipment, Fred Bolamperti (213) 781-4000
- o Garret Corporation, Don McGrath (213) 323-9500
- o Golder Associates, David Pentz (206) 827-0777
- o Science Applications, Inc., Lee Simmons (714) 454-3811
- o Allied Chemical Company, Phil Nelson (208) 583-1025

Details of Professional Staff: (Continued)

Name: Alfred D. Robinson
Degree: B.S., Science
Years Experience: 40
Fields: Electrochemistry; Electronics; Nuclear Science; Hydraulics; Logic Networks; Instrumentation Systems.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: OVERVIEW (see also 6, 10, 19, 20)

Company Name: Engineering & Economics Research, Inc.

Address: 1951 Kidwell Drive
Vienna, VA 22180

Telephone: (703) 893-8600

Year Founded: 1979

8(a) Status: Certified

Principal Name: Marpal S. Dhillon

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: No information

Growth Pattern: 68% one-year growth rate in 1981;
42% in 1982; and 59% in 1983

No. Professional Staff: Full-time 110

Part-time 8

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Environmental Impacts/ Geotechnical Engineering.....	7
(2) Human Factors Engineering.....	3
(3) Probabilistic Risk Assessment.....	2
(4) Quality Assurance.....	4

Minor Fields:

(1) Regulatory Analysis.....	7
(2) Reliability.....	4
(3) Safety Analysis.....	3
(4) Statistics.....	6

Facilities: On-Site--

- o Maintains two locations with executive offices, professional staff and business offices, library, meeting facilities.
- o Prime 750 computer which contains a core memory of 2 million bytes, disk space of 300 megabytes, and a tape drive backup, 12 IBM personal computers, a Wang 2200, an Osborne and a Dynabyte DB8/2 computer.
- o The prime supports 6 TAB terminals, a high speed Printomex 600 line printer; and a Zeta color graphics plotter. At maximum configuration the computer will support 128 terminals.

Access To--

- o Has available two remote terminals with access to PRCS time-sharing mainframe (IBM 360/91).

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Federal Aviation Administration, G. Booth (202) 426-3560
- o CH2M Hill, Inc., W. Sellman (703) 620-5200
- o National Aeronautics and Space Administration, J. Gitelman (301) 344-6488
- o Department of Defense
- o Department of Transportation
- o National Oceanographic and Atmospheric Administration, R. Norling (202) 254-3483
- o Federal Emergency Management Agency, G. Orrell (202) 287-0036
- o Department of Energy, Fred Able (202) 252-9398
- o Environmental Protection Agency, T. Knutson (202) 382-2794

Details of Professional Staff:

Name: Harpal S. Dhillon, President

Degree: Ph.D., Industrial Engineering and Operations Research

Years Experience:

Fields: Systems analysis and design; mathematical programming, strategic, technological and economic evaluation of programs for energy, resources and environment; cost/benefit analysis; production planning and control; statistics and quality control; and computer applications.

Name: Jai N. Gupta, Executive Vice President

Degree: M.Sc. Electrical Engineering; M.B.A. Business Finance;

Ph.D. Communications Image Processing and Pattern Recognition

Years Experience:

Fields: Aerospace and energy systems.

Name: Morris N. Gunzburg, Vice President

Degree: B.S. Electrical Engineering

Years Experience:

Fields: Product planning and evaluation; corporate management; planning and marketing.

Name: George M. Frederickson, Senior Analyst

Degree: B.A.E. Aeronautical Engineering

Years Experience:

Fields: Systems engineering and analysis; software consultation and programming in applications, including on-line data bases, real time tracking and commanding, weapon system data processing and scientific programming.

Single-time Clients:

- o Department of State
- o National Electrical Manufacturers Association
- o Department of the Interior
- o National Science Foundation
- o Department of Health, Education and Welfare
- o Department of Housing and Urban Development
- o Office of Technology Assessment
- o The World Bank, M. Malik (202) 477-3436
- o Organization of American States

Notes:

o Additional Staff Expertise:

- Human Resource Development
- Space Physics
- Electrical Communications
- Automatic Speech Recognition
- Man-Machine Interaction
- Mathematical Statistics
- Aerospace and Data Systems
- Transportation Systems
- Upper Atmosphere Research Satellite (UARS) Computer Support
- Industrial Administration
- Energy and Environmental Systems
- Civil Engineering
- Solid State Science
- Mechanical Engineering
- Qualitative Evaluations and Policy Analysis
- Chemical Engineering
- Analytical Chemistry

- o Staff has provided diversified professional services to a number of clients, which include private domestic and foreign firms, federal agencies, national laboratories, and state and foreign governments.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: OVERVIEW (see also 2, 6, 11)

Company Name: Enviroscience, Inc.

Address: 2021 East Hennepin Avenue
Minneapolis, MN 55413

Telephone: (612) 379-7242

Year Founded: September, 1979

8(a) Status: Certified

Principal Name: K. Dennis Kim

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$275,000
1981: \$180,000
1980: \$ 56,000

No. Professional Staff: Full-time 11

Part-time -

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Civil Engineering.....	11
(2) Environmental Impacts.....	4
(3) Hydrology.....	16

Minor Fields:

(1) Waste Management.....	5
(2) Geotechnical Engineering.....	3
(3) Structural Engineering.....	9

Facilities: On-Site--

o Data retrieval and word processing capabilities.

Access To--

o University of Minnesota Computer Center.
o Use of CRAY IA; CDC CYBER; DEC-VAX; Xerox 9700 computers for Water Resources Engineering.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Minnesota Dept. of Natural Resources - I. E.
- o U.S. Army Corps of Engineers, Kent Penderson (612) 725-5904
- o Barr Engineering Co. - I. E.
- o Ulteig Engineers, Ken Skuza (701) 237-3211
- o Howard R. Green Company, Herbert C. Berry (319) 395-7805
- o BRW, Donald W. Ringrose (612) 379-7878
- o OSM, Benie Mittelsteadt (612) 331-8660

Details of Professional Staff:

Name: Isaac Yomtovian, P.E.

Degree: M.S., Water Resources/Civil Engineering; Ph.D. Coursework
Waste Management/Agricultural Engineering

Years Experience: 12+

Fields: Water resources; hydrology; hydraulic; computer models.

Name: K. Dennis Kim, P.E.

Degree: M.S., Fluid Mechanics; Ph.D., Hydraulics/Water Resources

Years Experience: 10+

Fields: Hydraulic and hydrologic models; water resources; computer models.

Name: Ruben F. Yomtovian

Degree: M.S., Computer Science; Graduate Work, Management
Information System

Years Experience: 15+

Fields: Computer Science; systems analyst; microprogrammer; field
service engineering.

Single-time Clients:

- o Associated Engineers, Inc.
- o DeWild, Grant, Reckert & Associ., Co.
- o Tolz, King, Duvall, Anderson & Assoc., - I.E.
- o Coon Creek Watershed District, Melvin Schulte (612) 755-9901
- o Nebraska Water Resource Center - I.E.
- o Metropolitan Council, James L. Frost (612) 291-6359
- o Armstrong, Torseth, Skold & Rydeen, Inc., James Rydeen
(612) 545-3731
- o Harold Israelson & Assoc. (612) 884-5381
- o International Multifoods
- o City of Monticello - I.E.
- o Northwestern Bell, Ed Steidler (612) 221-4938
- o Short Elliot Hendrickson
- o Set. W. Twichell & Assoc.
- o City of Edina - I.E.
- o Stewart & Walker, Inc.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: OVERVIEW (see also 10, 27)

Company Name: Evaluation Technologies Incorporated (ETI)

Address: 2020 N. 14th Street, Sixth Floor
Arlington, VA 22201

Telephone: (703) 525-5818

Year Founded: 1970

E(a) Status: Certified

Principal Name: Lawyer A. Martin

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$4 Million; 1983: \$5 Million

Growth Pattern: Steady for the past 4 years

1980: \$2 Million; 1981: 3 Million; 1982: \$4 Million

No. Professional Staff: Full-time 175

Part-time 20

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Human Factors Engineering..... 2
(2) Statistics..... 18

Minor Fields:

(1) Facilities Management..... 6
(2) Information Support..... 6

Facilities: On-Site--

o Headquarters consist of 10,000 square feet of office space, housing corporate, management and finance offices, project teams and ETIS word processing, editorial and graphics departments. There is an in-house Jacquard J100 shared logic minicomputer capable of supporting a wide variety of peripherals, i.e., satellite CRT terminals, printers and disk and tape drives.

Access To--

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Department of Energy, R. Weinrich (301) 258-5300
- o Department of Labor, H. F. Dodge
- o Department of State, Toni Gibbon (202) 235-9309
- o Environmental Protection Agency
Phillip Patterson (202) 697-8237
- o Federal Railroad Administration, Diane Pecor (202) 426-0881
- o U.S. Agency for International Development,
James Jackson (202) 632-9724

Details of Professional Staff:

Name: Lawyer A. Martin, President
Degree: SCMP, Harvard Business School
Years Experience: 21
Fields: Data Processing, Business Management

Name: Michael E. Cohen, Vice President for Professional Services
Degree: B.S., Electrical Engineering
Years Experience: 15
Fields: Research; Evaluation; Training.

Name: William W. Walker, Vice President for Technical Operations
Degree: M.B.A.
Years Experience: 10
Fields: Management, Marketing, Administration

Single-time Clients:

- o Federal Aviation Administration, Kenneth Geisinger (202) 426-3420
- o U.S. Army Training Support Center, C. Canaan (804) 878-5066
- o U.S. Department of Treasury, Paul Bohoslav (202) 566-8070
- o National Cancer Institute, Robert Bowser (301) 472-8648
- o National Heart, Lung & Blood Institute, Gerald Payne (301) 496-2465
- o National Institute of Education, Charles Haughey
- o National Institute of Drug Abuse
- o Health Resources Administration
- o Food and Drug Administration
- o Department of Housing and Urban Development

Notes:

- o Specializes in the design, development, and implementation of information systems, computer feasibility studies and long range ADP planning. Has directed a study for the Agency for International Development (AID) to determine the requirements for computer terminals and operated for AID their IBM 370 and related peripheral equipment. Has managed and operated a mini-computer facility for the Department of Agriculture, a telecommunications center for the Department of Energy's headquarters, and provided library scientist and technicians in operations of NASA's Scientific and Technical Information Clearinghouse.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: OVERVIEW (see also 4, 13)

Company Name: Gaylord & Associates Corporation

Address: 505 East Olive Ave.
Sunnyvale, CA 94086

Telephone: (408) 733-2553

Year Founded: 1967

8(a) Status: Certified

Principal Name: Archie Gonzales

Title: President

Average Gross Receipts (3 yrs.)

Dollar Volume, 1982: \$800,000

Growth Pattern: Climbing 15%; \$800,000 highest volume (1981)

No. Professional Staff: Full-time: 7

Part-time

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Electronics Engineering..... 10
(2) Mechanical Engineering..... 3

Minor Fields:

(1) Technical Illustrations..... 4

Facilities: On-Site--

- o Branch offices in Oakland and Oxnard, CA
- o Technical Publications/Printed Circuit Design capabilities
- o Word Processing; IBM composer; Headliner

Access To--

- o CAD/CAI 1-database

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o NASA, Richard Fimmel (408) 965-5000
- o Lawrence Livermore Laboratories, Brad Tuvey (415) 422-8547
- o Stanford Linear Accelerator, Ron Lynch (415) 854-3300

Details of Professional Staff:

Name: Archie Gonzales

Degree: -

Years Experience: 21

Fields: Technical drawings and design; design of electro/
mechanical equipment and architectural design criteria.

Name: Jeanne Gonzales

Degree: B.Sc., Accounting

Years Experience: 15

Fields: Business management; accounting systems; marketing
techniques; tax planning and audits; technical
publications.

Name: Marilyn D. Marshall

Degree: B.A., Liberal Studies

Years Experience: 10

Fields: Office management.

Name: David Orejel

Degree: Certificate, Mechanical Drawing

Years Experience: 7

Fields: PCB design/layout; mechanical design.

Single-time Clients:

- o G. J. Yamas, Erik Eron (415) 761-5123
- o Microscience International Corp., Howard Tong (415) 961-2212
- o Shugart Associates, (408) 733-0100, ext. 2327
- o Surface Science Laboratory, Bill Peterson (415) 962-8767
- o Spectra Physics, Allan Peterson (415) 961-2550, ext. 2180
- o Astro Namics, Ron Merritt (408) 965-8136
- o Granger Associates
- o Nuclear Enterprises
- o Watkins Johnson
- o VLSI Technology

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: OVERVIEW (see also 6, 8, 26, 30)

Company Name: Geo/Resource Consultants
Corporate Headquarters

Address: 1620 Montgomery Street
San Francisco, CA 94111

Telephone: (415) 433-3177

Year Founded: December, 1976

8(a) Status: Certified

Principal Name: Alvin K. Joe, Jr.; R.G., C.E.G.

Title: President and Chief Executive Officer

Average Gross Receipts (3 yrs):
Dollar Volume, 1982: \$900,000 (est.)
Growth Pattern: Will provide

No. Professional Staff: Full-time 30

Part-time 5

Capabilities and Experience of Firm:

Major Fields:

	<u>No. of Contracts:</u>
(1) Environmental Impacts.....	13
(2) Geology/Geotechnical Engineering.....	38
(3) Seismology.....	18
(4) Waste Management.....	13

Minor Fields:

(1) Hydrology.....	18 (of the Geology/ Geotechnical Engineering contracts)
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Facilities: On-Site--

- o Corporate headquarters is located in San Francisco with four branch offices in Seattle, Washington; Tucson, Arizona; and Washington, D.C.
- o Maintains its soil testing laboratory at its San Francisco and Tucson offices; has its own geophysical equipment and downhole shear wave hammer, and maintains a pool of field equipped vehicles for exploration and field testing purposes.
- o In addition, equipped with computer for word processing and slope design, and has recently developed its own Earthquake Data Bank.
- o Utilizes a portable video camera and video cassette recorder (VCR) for geologic/geotechnical field reconnaissance and documentation and for in-house corporate training programs.

Access To

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:^{*}

- o City and County of San Francisco, CGKT Joint Venture, D. Rose (415) 982-8338
- o Northern Border Pipeline Co., R. Stiles (402) 691-2284
- o San Francisco Public Utilities Commission, P. Matsumura (415) 558-4986
- o Department of Interior, P. Summers (303) 234-2374
- o Southern California Rapid Transit District, H. Spellman (213) 795-0461
- o Office of the State Architect, Sacramento, CA, J. Chia (916) 327-0585
- o Cienega Corporation, R. Patrick (602) 747-8600
- o San Francisco Redevelopment Agency, H. Taylor (415) 543-8422
- o East Bay Municipal Utilities District, S. Wason (415) 932-1710; J. Bischoff (415) 945-3000

Details of Professional Staff:

Name: Alvin K. Joe, Jr., President

Degree: B.S.

Years Experience: 13

Fields: Geology.

Name: Bruce Auld

Degree: M.A.

Years Experience: 17

Fields: Geophysics.

Name: Alan D. Tryhorn, Vice President/Chief Geologist

Degree: S. A.

Years Experience: 11

Fields: Geology.

Name: Fred Chen

Degree: M.S.

Years Experience: 18

Fields: Civil Engineering.

Single-time Clients:^{*}

- o Donner Summit Public Utilities District, R. Dewante (916) 447-3261
- o Continental Development Co., H. Taylor (415) 543-8422
- o U.S. Forest Service, J. Chotian (415) 556-0122
- o City of Berkeley, C. Park (415) 526-6432
- o USDA Forest Service, G. Zitney (415) 883-6425
- o Pacific Gas Transmission Company, G. Meyer (415) 768-1234
- o South Tahoe Public Utility District, R. Perisbo (916) 366-1701
- o Seattle Metro, L. Sullivan (206) 623-6000
- o Montgomery Land Co., J. Ma (415) 398-3154
- o U.S. Army, D. Kroft (415) 982-8338
- o California Water Quality Board, R. Ott (916) 244-1920
- o U.S. Bureau of Land Management, Butte, Montana; Cliff Fanning
- o San Francisco Municipal Railway, P. Q. Chin (415) 495-7010
- o U.S. Environmental Protection Agency, C. Barley (202) 382-5235

Notes:

- o GRC is a member of the Consulting Engineers Association of California, Association of Soil and Foundation Engineers, Society of American Military Engineers, Soil and Foundation Engineers Association, Asian American Architects and Engineers, and the Association of Minority Consultants. Our professionals regularly publish and present technical papers and are actively involved in the ASCE, AEC, SEG society of Mining Engineers, and the Geological Society of America.
- o The firm's primary expertise lies in the diversified geologic and geotechnical engineering backgrounds of its key professionals. GRC's professional staff has been involved in many geotechnical studies concerning regional geologic and seismic hazards mapping, sedimentation and erosion studies in both inland and coastal areas, stream scour studies across bridge crossings, siting studies for buildings, land-slide classification mapping, pipelines, tunnels, the rehabilitation of historic landmark structures, and dam safety analyses. In addition, GRC's staff has been involved in numerous coastal EIRs, dam and reservoir studies, regional geoplanning studies, landfill engineering studies, hydro site feasibility studies, subways, transmission line and pipeline right of way studies, acid mine drainage studies, economic geologic studies of rock and gravel quarries, and geotechnical studies for co-generation power facilities; and hazardous waste investigations of hydrocarbon contaminated sites and hydrogeologic studies of groundwater basins.

^{*}A representative sample of clients.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: OVERVIEW (See also 2, 11, 30)

Company Name: Geo-Technical Services, Inc.

Address: 851 South 19th Street
Harrisburg, PA 17104

Telephone: (717) 236-3007

Year Founded: 1959

8(a) Status: Certified

Principal Name: James Diaz, REG

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$200,000-\$500,000

Growth Pattern: Fees in same range for past 5 years.

No. Professional Staff: Full-time 28

Part-time

Capabilities and Experience of Firm:

Major Fields:

Planning and costing for all of the following:

	<u>No. of Contracts:</u>
(1) Surveying/flood plain studies.....	22
(2) Housing.....	20
(3) Bridges.....	12
(4) Testing and inspection.....	12
(5) Acid mine drainage abatement.....	9
(6) Water Resources, hydrology, ground water.....	8
(7) Dams, etc.....	7
(8) Rivers, waterways, flood control.....	6
(9) Soils and geologic studies.....	6

Minor Fields:

(1) Sewage collection, treatment and disposal.....	5
(2) Water supply, treatment and distribution.....	4
(3) Solid wastes, incineration, land fill.....	4
(4) Regional planning.....	4
(5) Irrigation; drainage.....	4
(6) Structural design.....	3
(7) Energy conservation.....	3
(8) Zoning and land use.....	3

Facilities: On-Site--

- o Laboratory.
- o Computer room.
- o Engineering and drafting facilities.
- o Surveying and mapping equipment.
- o Field sampling and recording devices.

Access To--

- o Control Data Corporation Time-Sharing.
- o Boeing Computer Services Time-Sharing.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Pennsylvania Department of Environmental Resources,
N. Batcheler (717) 787-7668
- o Chester County Water Resources Authority,
D. C. Yaeck (215) 692-7878
- o U.S. Army Corps of Engineers, G. Oberman (Norfolk District)
- o New Garden Township Board of Supervisors,
T. Kelleher (215) 268-2915

Details of Professional Staff:

Name: James Diaz, REG

Degree: B.S., Geology

Years Experience: 30

Fields: Administrative management, engineering geology, environmental geology, geotechnical investigation, hydrologic investigation, land use planning, structural foundation design.

Name: Gideon Yachin, P.E.

Degree: M.S., Civil Engineering

Years Experience: 27

Fields: Feasibility studies and economic analysis, hydrologic inventories, hydraulics, waste treatment and drainage studies, storm water management, soils engineering.

Name: Frank H. Pearson

Degree: M.S., Water Resources; Ph.D., Civil Engineering

Years Experience: 9

Fields: laboratory management, acid mine drainage, computer modeling, laboratory-scale and pilot-scale treatment plants, sanitary engineering, pollution control.

Name: Thomas A. Graupensperger

Degree: B.S., Environmental Resources Management

Years Experience: 6

Fields: Design, construction and operation of surface and groundwater stations, statistical analysis and computer programming, energy conservation surveys.

Single-time Clients:

- o Federal Emergency Management Agency
- o Pennsylvania Department of General Services,
R. A. Dietrich (717) 787-5337
- o Adams County Board of Commissioners
- o Private Architects, Farmers, Builders (6)
- o American Cablevision of Monroeville
- o Housing projects

Notes:

The 28 professionals are divided as follows:

Administration.....	1
Architecture.....	1
Civil-Engineering.....	4
Construction Inspection.....	1
Drafting.....	5
Ecology.....	1
Economics.....	1
Electrical Engineering.....	1
Geology.....	2
Hydrology.....	2
Interior Design.....	1
Landscape Architecture.....	1
Sanitary Engineering.....	1
Soils Engineering.....	2
Structural Engineering.....	1
Surveys.....	3

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: OVERVIEW (see also 3, 4, 8)

Company Name: Intotec Development Incorporated
Address: 3505 Cadillac Avenue, Bldg. M
Costa Mesa, CA 92626

Telephone: (714) 241-8254

Year Founded: September, 1978

8(a) Status: Certified

Principal Name: J. Fernando Niebla
Title: President

Average Gross Receipts (3 yrs):
Dollar Volume, 1983: \$6 Million
Growth Pattern: 77% one-year increase
in dollar volume in
1981; 50% increase in
1983

No. Professional Staff: Full-time 102
Part-time 10

Capabilities and Experience of Firm:

<u>Major Fields:</u>	<u>No. of Contracts:</u>
(1) Electrical Engineering..... - Satellite Operations - Communications Command	Numerous
(2) Electronics Engineering..... - Computer Systems Engineering	Numerous
(3) Geology/Geotechnical Engineering..... - Earth Sciences - Archaeology - Cartography	Numerous

Repeat Clients:

- o U.S. Geological Survey
- o National Oceanic & Atmospheric Administration,
H. McClure (301) 763-8064
- o U.S. Navy
- o IBM (Gaithersburg, MD), Mark O'Hara (301) 840-6962
- o U.S. Air Force Satellite Control Center
- o U.S. Air Force (Wallops Air Force Base, AFLEC),
Bill Bankhead (801) 777-4694
- o Bonneville Power Administration, D. Berkey (503) 230-3606

Facilities: On-Site--

- o Headquarters consisting of 12,500 square feet of office space, including digital, photography, computer and cartography laboratories.
- o TOP SECRET cleared.
- o Field operation offices for the Systems Division located in Sunnyvale, CA (2,000 sq. ft.); Salt Lake City, UT (5,000 sq. ft); Colorado Springs, CO (1,000 sq. ft); Portland, OR (4,000 sq. ft); Washington, D.C. (500 sq. ft.)
- o A field office for the Earth Sciences Divisions located in Sonora, CA (6,000 sq. ft.)
- o VAX 11-780, VAX 11-750, PDP 11-23, HP-3000, two HP-1000's, IBM System 36, thirteen Televideo microprocessors, one Zenith 2400 microprocessors, three Kaypro microprocessors.

Access to --

- o IBM 4341 computer system (on line) for scientific simulations and data analysis.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Single-Time Clients:

- o National Park Service, B. Keal
- o CALTRANS
- o U.S. Forest Service
- o U.S. Fish & Wildlife Service
- o Defense Mapping Agency

Details of Professional Staff:

Name: Thomas D. Taverney

Degree: M.S., Systems Management; B.S., Astronautical Engineering

Years Experience: 14

Fields: Preliminary design of Spacecraft, space systems operations, man-machine interface definition, launch operations, orbital analysis, software development and configuration control, systems engineering and methodology development.

Name: Douglas L. Smith

Years Experience: 24

Fields: Communications, Command, Control and Intelligence (C³ I) system design and development, satellite design, development with specialized skills in design, man-machine, training, security, cost/schedule management, logistics, and systems engineering.

Details of Professional Staff: (continued)

Name: C. Chris Schneider, Jr.

Degree: Ph.D, Engineering

Years Experience: 17

Fields: Space System Engineering, Mission Planning/Orbital Analysis Attitude Dynamics/Control, Software Engineering, Project Management.

Name: John R. Carlyle

Degree: B.S., Physics

Years Experience: 19

Fields: Large Scale engineering data storage and retrieval systems analysis, design, programming integration, user training, communication system design and programming, computer facilities planning and operations management; management of real-time radar and sonar systems software development, configuration control, and quality assurance, integration facilities operation.

o Number of Personnel by Discipline:

- Aeronautical Engineers (2)
- Programmers (38)
- Electrical Engineers (15)
- Physicists (2)
- Electronic Design Engineers (3)
- Software Engineer (2)
- Astronautical Engineer (3)
- Senior Archaeologist (6)
- Cartographers (4)

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: OVERVIEW (see also 3, 13)

Company Name: Jalords, Incorporated

Address: 511 North Broad Street
Philadelphia, PA 19123

Telephone: (215) 592-1918

Year Founded: May, 1967

8(a) Status: Certified

Principal Name: James A. Davis

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982, \$600,000

Growth Pattern: 20% one-year increase in dollar-volume in 1980;
17% in 1982

No. Professional Staff: Full-time 10

Part-time 3

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Electrical Engineering..... 85
(2) Mechanical Engineering..... 95

Minor Fields:

(1) Feasibility Studies..... *
(2) Building, Equipment and Site Survey..... *
(3) Interior Industrial and Laboratory Layout..... *
(4) Mechanical Packaging of Electronic Equipment..... *
(5) General Mechanical and Electrical Drafting..... *

Facilities: On-Site--

o 3,100 square feet of office space.

Access To--

o Mainframe computer.

*Aspects of most of the firm's contracts.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Atti Consultants, LTD, E. Taylor (301) 296-2884
- o Bell Telephone Company of Pennsylvania
- o Cam & Clubreath Associates
- o City of Philadelphia
- o Livingston/Rosenwinkel Architects, W. Livingston (215) 765-8855
- o Ueland & Junker, Architects, T. Junker (215) 546-8950
- o General Services Administration, J. Luka (215) 597-3827
- o U.S. Postal Service, C. Isreal (215) 496-6227
- o Veterans Administration (PA) Campy (215) 382-8886
- o Veterans Administration (MD), G. Miller (301) 642-6058
- o U.S. Navy (NAEC), F. Purnell (215) 755-4824
- o U.S. Navy (NAVFAC)

Details of Professional Staff:

Name: James A. Davis, President

Degree: B.S., Mechanical Engineering

Years Experience: 27

Fields: HVAC design, specification and field supervision for commercial and industrial construction; energy conservation studies. Licensed professional engineer in seven states.

Name: Walter S. Farley, Jr., Chief Electrical Engineer

Degree: B.S., Electrical Engineering

Years Experience: 30

Fields: Design, specification, analysis and management of commercial and industrial electrical power systems; construction drawings for chemical process plants, generating stations, air fields and transmission sub-stations; cost estimating and design for 115/230 volt and 2,400 volt distribution facilities for system load re-inforcing.

Name: Michael L. Sciore, Staff Mechanical Engineer

Degree: B.S., Mechanical Engineering

Years Experience: 14

Fields: HVAC and plumbing design and construction; design and build of mechanical systems for hospitals.

Single-time Clients:

- o Cope Linder Associates/Bower Lewis Thrower, R. F. Linder (215) 925-6767
- o Dupont Company
- o Federal Railroad Administration
- o Leon Bridges Company
- o Mitchell/Guergola Architects, J. Lawson (215) 925-0100
- o Rhett Hamilton Jones Associates, R. Jones (215) 296-4555
- o Scott Paper Company
- o Sun Oil Company
- o U.S. Army Corps of Engineers, J. Romelt (215) 597-4716

Details of Professional Staff: (Continued)

Name: Eugene Brehme, Jr., Sanitary Engineer

Degree: None (engineering training)

Years Experience: 22

Fields: Design and documentation and construction review for water pollution control facilities, pump houses and a desalination power plant; domestic water and sanitary waste systems of a complex nature.

Notes:

- o Additional Professional Staff Field
- Fire Protection Engineer

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: OVERVIEW (see also 2, 6, 13, 28)

Company Name: John E. Foster and Associates, Inc.

Address: 1134 Corrugated Way
Columbus, Ohio 43201

Telephone: (614) 294-5234

Year Founded: March, 1979

8(a) Status: Certified

Principal Name: John E. Foster, P.E.

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$523,154

Growth Pattern: 71% one-year increase in dollar volume in 1981; 40%
in 1982 and 18% in 1983.

No. Professional Staff: Full-time 23

Part-time 8

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Civil Engineering.....	8
(2) Environmental Impacts.....	8
(3) Mechanical Engineering.....	7
(4) Structural Engineering.....	14
(5) Traffic Engineering.....	4

Minor Fields:

(1) Biology.....	2
(2) Wastewater Management.....	18
(3) Energy Conservation/Management.....	5
(4) Water Systems Engineering.....	6

Facilities: On-Site--

- o 2,850 square feet of office space in Columbus, Ohio
- o Conference room, library, xerox room, drafting room, engineering design area, environmental planning area, marketing area and administrative area.
- o 2080 square feet of office space in Cleveland, Ohio.
- o Conference room, xerox room, drafting room, engineering design area and administrative area.

Access To--

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Ohio Department of Natural Resources, J. Swartzmiller (614) 265-6948
- o Ohio Department of Transportation
- o City of Columbus, Department of Public Service
- o City of Cleveland, Department of Public Service
- o Cleveland Bridge Improvements, R. Barrish (216) 664-3346
- o U.S. Army Corps of Engineer, Louisville District
- o Franklin County Engineer, J. Circle (614) 462-3030
- o Southerly Wastewater Treatment Plant, Columbus Ohio
- o Jackson Pike Wastewater Treatment Plant, Columbus, Ohio
- o Community Services Administration

Details of Professional Staff:

Name: John E. Foster, P.E.

Degree: Bachelor of Civil Engineering

Years Experience: 27

Fields: Civil Engineering; Structural Engineering; Environmental Engineering

Name: Harry W. Roberts, P.E.

Degree: Bachelor of Civil Engineering

Years Experience: 21

Fields: Civil Engineering; Structural Engineering; Transportation Engineering.

Name: Albert S. Trefts, P.E.

Degree: Bachelor of Mechanical Engineering

Years Experience: 30

Fields: Mechanical Engineering; Process Systems; Systems Engineering

Single-time Clients:

- o Ohio Department of Energy
- o U.S. Department of Interior, National Park Service
- o City of Youngstown, Ohio
- o The Ohio State University
- o City of Bexley, Ohio
- o Central Ohio Transit Authority
- o Cleveland Public Square Improvements
- o Pike Housing Authority, Weatherby (614) 221-8487
- o Scioto Village-Phase II, Weatherby (614) 221-8487
- o Timber Ridge Apartments, Weatherby (614) 221-8487
- o Upper Mill Creek Wastewater Facilities, R. Tibbet (614) 459-2050
- o Blacklick Interceptor Facilities, (614) 888-4953
- o Long Term Solids Handling Facilities, (614) 888-4953
- o Union City Wastewater Treatment Plant
- o Sanitary Sewer Relocation, Monsanto Research Corporation

Notes:

- o Has the capability and credentials, based on accumulated professional, technical and academic accomplishments, to provide a wide range of civil, sanitary, municipal and architectural-engineering services. The scope of services includes investigations, identification of appropriate technologies, report preparation, detail, project design, construction supervision and operational analysis. Professional engineer in Ohio, Michigan and Pennsylvania.
- o Serves as Chief Engineer for the firm. Responsibilities include administration, management and control of production operations, recruitment and marketing activities in the Cleveland area. As Chief Engineer responsible for design, review, quality control and coordination of design activities. Professional Engineer in 3 states.
- o Serves as Chief Mechanical Engineer for the firm. Responsibilities include design, review, production operations and supervision of mechanical engineering design. Extensive experience in oil refining, chemical and synthetic fuels industries.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: OVERVIEW (see also 10)

Company Name: Lund, Inc.

Address: 3 Westchester Plaza
Elmsford, New York 10523

Telephone: (914) 347-5575

Year Founded: 1979

8(a) Status: Certified

Principal Name: Linda O. Lund

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$450,000; 1983: \$975,000

Growth Pattern: 40% one-year increase in dollar volume in 1981;
44% in 1982; 100% in 1983.

No. Professional Staff: Full-time 22

Part-time 1

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:*

(1) Human Factors Engineering..... 6

Facilities: On-Site--

- o 15 miles north of New York City.
- o Appropriate equipment for processing secret or classified information and materials.
- o Sophisticated commercial printing facilities, including high-quality offset capability on reduced or enlarged format.
- o In-house library with latest NUREGS, industry reference materials; journals, government manuals; and multi-industry and military references, standards and periodicals.
- o Professional photographer and in-house graphic capability.
- o Video recording equipment.

*A representative number of contracts

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:²

- o Public Service Electric & Gas, B. Edmonds (609) 935-8560
- o Boston Edison, E. Haddad (617) 424-3233
- o EBASCO, D. Price (212) 839-3608
- o So. Calif. Edison (213) 572-1212
- o Duke Power, Lloyd Schmid (704) 373-8416
- o Rochester Gas and Electric, C. Mambretti (716) 724-8071

Details of Professional Staff:

Name: Linda O. Lund, President

Degree: Ph.D. (candidate) Technology Management & Human Factors

Years Experience: 11

Fields: Human factors and operational concerns in nuclear power plants; human performance models; human factors upgrade programs for nuclear power plants; Instructor Development Program on emergency operating procedures; nuclear, electrical and electronic standardization

Name: Gregory J. Opetosky, Director, Division of Human Factors Engineering

Degree: M.S., Electrical Engineering

Years Experience: 6

Fields: Analysis of maintenance personnel operations at fossil stations; human factor to nuclear power plant control rooms; analysis of man-computer interfaces such as the Safety Parameter Display System.

Name: Richard Martin, Department Head -- Technical Services

Degree: M.S. (candidate) Technology Management;
B.S. Nuclear Engineering

Year Experience: 4

Fields: Training; Job/task analysis; nuclear engineering; BWR operations (SRO); operations support; procedures review and development.

Name: Tony Brown, Human Factor Engineering

Degree: B.S., Psychology

Years Experience: 2

Fields: Public Power Supply System's Control Room survey and assessment; measured reading speed under several printing options (micro-computer).

Single-time Clients:

- o Department of Energy/Oak Ridge National Laboratory

Notes:

- o Other Professional Staff Fields:

- Human Factors Engineering.

- Mechanical Engineering.

- Electrical Engineering.

- Training Specialist (2).

- o Additional Firm Expertise:

- Presented seminars to the Nuclear Regulatory Commission Human Factors Safety Division on "A Wholistic Approach to Human Performance Error" and "Use of Task Analysis in Nuclear Power Plants."

- Provided a basis for sections of NUREG/CR-2587: "Functions and Operations of Nuclear Power Plant Control Rooms."

- Completed services tasks including: human reliability data analysis and analyses and comment on NUREG/CR-1278, "Handbook of Human Reliability Analysis with Emphasis on Nuclear Power Plant Applications."

²A representative sample of clients

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: OVERVIEW (see also 2, 6, 8)

Company Name: Meiji Resource Consultants

Address: 940 North 400 East
P.O. Box 267
North Salt Lake, Utah 84054

Telephone: (801) 298-2401

Year Founded: 1977

8(a) Status: Certified

Principal Name: Tom N. Hori

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, \$850,000 annually

Growth Pattern: Leveled off after early peak;
holding steady last two years.

No. Professional Staff: Full-time 9

Part-time 6

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Civil Engineering.....	4
(2) Environmental Impacts.....	10
(3) Geology/Geotechnical Engineering.....	42

Minor Fields:

Facilities: On-Site--

o Data General Eclipse S/250 computer,
512 K byte memory; 190 megabyte disk,
800/1600 BPI 9 track tape drive; digital plotter,
line printer, 4 Tektronix graphics terminals with
high resolution digitizing tablets.

Access To--

o Drafting services; typing; technical editing.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Community Services Administration, R. C. Babel (202) 632-6520
- o Tundra Mines, Ltd., B. Daffron (505) 268-5080
- o National Park Services, R. Laubenhien (303) 234-4308
- o U.S. Bureau of Reclamation, M. Heiner (801) 524-5359
- o U.S. Department of the Interior
- o Exxon Minerals Co., USA, R. A. Sultreach (303) 789-7757
- o Chevron Resources Company, C. M. Swift (303) 857-2700
- o U.S. Geological Survey, R. H. Klauk (801) 581-6831
- o U.S. Forest Service, L. Wiese (801) 625-5213
- o Bendix Field Engineering Corp., C. B. Inberg (303) 242-8621
- o USDA Soil Conservation Service, S. Powell (907) 276-4246
- o Freeport Exploration Company, E. J. Collard (702) 323-2251

Details of Professional Staff:

Name: Tom N. Hori, President

Degrees: Business Management Graduate

Years Experience: 13

Fields: Marketing; Administration; Finance.

Name: Richard C. Fox, Senior Manager

Degrees: B.S., Geology; M.S., Geophysics

Years Experience: 16+

Fields: Geology; geophysics; application of geophysical techniques in exploration programs.

Single-time Clients:

- o Kayser Engineers, Inc.
- o Bureau of Land Management, J. Cunningham (303) 234-5437
- o Ronald Willden (801) 942-6977
- o Magnum Resources, Inc., R. R. Robinson (801) 266-8576
- o Dresser Industries, Inc., R. S. Banitt (702) 738-8411
- o U.S. Department of the Navy, A. Kapcenstein (619) 939-3411
- o MINCON
- o Fishlake National Forest, D. K. Allan (801) 896-4491
- o Ute Indian Tribe/DOE, J. Cutch (801) 722-5141
- o CH2M Hill, G. Evans (801) 539-0070
- o Uintah-Ouray Indian Reservation, J. Cutch (801) 722-5141
- o U.S. Fish & Wildlife Service, J. Miller (303) 234-3496

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: OVERVIEW (see also 6, 13, 28, 29)

Company Name: Mobility Systems & Equipment Company

Address: 6151 W. Century Boulevard Suite 912
Los Angeles, CA 90045

Telephone: (213) 641-3606

Year Founded: 1969

8(a) Status: Current

Principal Name: George J. Adams

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume: 2,400,000.00

Growth Pattern: Upward

No. Professional Staff: Full-time 25

Part-time 0

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Transportation.....	94
(2) Mechanical Engineering.....	37
(3) Structural Engineering.....	18

Minor Fields:

Facilities: On-Site-- Offices:

Main Office

6151 W. Century, Suite 912
Los Angeles, CA 90045

Proving Ground Research Center

3401 Etiwanda Boulevard
Mira Loma, CA 91752

Fabrication Facility

9220 Atlantic Boulevard
South Gate, CA 90280

Computer Components:

- o Microcomputer, Dynabyte Model 5505A, 64 K
- o CRT Terminal, Zenith Model Z-19
- o Dot Matrix Printer, NEC 100 CPS, Model 8023A
- o Plotter, Houston Model DPM-2, 8½ x 11 surface
- o Microcomputer, TRS-80 Model 1 level 1; 48K
- o Disc Drives, TRS 5¼", .2 Mbyte capacity

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Federal Highway Administration, N. O. Clary (202) 755-9370,
L. D. McCollum (202) 755-9370
- o National Highway Traffic Safety Administration, James Auten
(202) 426-2102, Thomas Stafford (202) 426-0607
- o Urban Mass Transportation Authority, John Sulentic (202) 775-4980
- o Fort Belvoir Research and Development Command, Susan Traggerer,
Herb Rothachild (703) 664-4285
- o Toyota Motor Company, LTD., Charles Plenumms (213) 618-4726

Details of Professional Staff:

Name: George J. Adams, P. E.

Degrees: Masters of Business Administration

Years Experience: 35

Fields: Transportation, Mechanical Engineering,
Structural Engineering

Name: Lloyd E. Carison

Degrees: B. S. Mechanical Engineering

Years Experience: 25

Fields: Transportation, Mechanical Engineering,
Structural Engineering

Name: Joe O'Gorman

Degrees: B.S. Mechanical Engineering

Years Experience: 25

Fields: Transportation, Mechanical Engineering

Name: Leroy Hoover

Degrees: P.H.D. Physics

Years Experience: 30

Fields: Structural Engineering

Single-time Clients:

- o Bureau of the Mines, Steven Swan
- o Boeing Aircraft Company
- o Continental Airlines
- o Hughes Aircraft Company, Julie Lyon (213) 517-5024

Notes:

- o Mechanical & Structural Engineering

- Allen G. Hoffman - Directs assessment and development of projects involving structural strength and mechanical operations.
- Brian W. Firth - Analyzed & developed mechanical assessments of military wheeled vehicles.

- o Transportation

- Duncan McKinnen - Chief of Advanced Development Division (DOT), directed programs developing improved technology for urban ground transportation systems.
- Irwin Rowe - Responsible for the development and management projects related to automated transportation technology, industrial management and development of R & D projects of various types.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: OVERVIEW (see also 6)

Company Name: Nero and Associates, Inc.

Address: 520 S.W. Sixth Avenue, Suite 1120
Portland, Oregon 97204

Telephone: (503) 223-4150

Principal Name: David M. Nero, Jr.

Title: Chief Executive Officer

Average Gross Receipts (3 yrs):
Dollar Volume, 1982: \$5.6 million

Year Founded: 1971

No. Professional Staff: Full-time 175

8(a) Status: Certified

Part-time

Capabilities and Experience of Firm:

Facilities: On-Site--

Major Fields:

No. of Contracts:

(1) Environmental Impacts
(socioeconomic and environmental
cost-benefit analyses)..... 13

o 3,000 square feet of office space.
o IBM-P.C., Digital Word Processors, with communication modem.

Minor Fields:

Access To--

(1) Air Quality Analysis..... 8

o Portland State University Computer.

Repeat Clients:

Single-time Clients:

- o EPA Region VII (816) 374-3791*
- o EPA (419) 541-3157*
- o EPA QAQPS (919) 541-5522*
- o State of Oregon (503) 229-6459*
- o EPA Region X (206) 442-1980*
- o EPA Region X (206) 442-1125*
- o Department of Transportation, G. McDonald (202) 426-4492*

- o Environmental Instrument Systems (219) 277-5715*
- o Sao Paulo, Brazil, Dr. Fernando Guimares*
- o Lane Regional Air Pollution Control Authority, D. Arkell
(503) 686-7618*
- o CH2M Hill, W. Hansen (503) 224-9190
- o Peeverly J. Hukill, Armand Bell (317) 342-8456*

*Based on a staff member's work performance.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Details of Professional Staff:

Name: Kish J. Sharma, President

Degree: M. Sc., Electrical Engineering; Ph.D. Systems Science

Years Experience: 10

Fields: Energy systems analysis and modeling; electrical power systems generation and reliability planning; coal resources and technology; energy technology and economics; low energy vehicles; technology assessment; forecasting; program planning; materials assessments; agricultural systems; appropriate technology; systems science and policy analysis.

Notes:

- o Varied work in the energy field for the last 10 years; has provided extensive knowledge of energy technology and systems, including their environmental impacts. He also provides technical knowledge for air quality assessment related to energy development; conducted comparative evaluations of energy technologies and studies of alternative energy futures; assessment of coal-based technologies, electric power generation, supply/demand modeling, energy planning and policy analysis, and net energy analysis. He has authored/co-authored 30 scientific and technical publications.

Name: John E. Core, Manager, Air Quality Group

Degree:

Years Experience: 16

Fields: Air Quality

Notes:

- o Recognized expert in particulate source apportionment, using receptor modeling and chemical mass balance analysis. Developed materials and conducted workshops on receptor modeling; designed and managed aerosol studies for particulate source apportionment; supervised engineers and scientists in technical work to support air pollution problem assessments, control strategy development, plan preparation to meet state and federal requirements. Published 15 papers and invited presentations.

Details of Professional Staff: (Continued)

Name: Robert L. Gay

Degree: Ph.D.

Years Experience: 20

Fields: Scientific and public policy applied research; team assembling and management to assess a wide variety of environmental impacts (air, water, land, noise), mitigation methods and policy issues for public and private sectors.

Notes:

- o Has developed a methodology for quantifying environmental costs and benefits. Directed a study of potential health effects associated with general population exposures to non-ionizing electromagnetic radiation in Multnomah County, Oregon.

Name: Patrick L. Hanrahan

Degree: M.S., Chemistry

Years Experience: 9

Fields: Emission inventory development; dispersion modeling application and computerized storage and processing of air quality data.

Notes:

- o Experience includes extensive PSD dispersion modeling studies of new and expanding point resources, the development and validation of urban airshed (Gaussian and Eulerian) models, point sources, line source and photo-chemical models. His research into emission factor uncertainties, modeling assumptions and meteorological variables led to the completion of major improvements.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: OVERVIEW (see also 2, 6, 28)

Company Name: Paul Parks and Associates, Inc.

Address: 100 Boylston Street, Suite 815
Boston, MA 02116

Telephone: (617) 415-3688

Year Founded: 1979

8(a) Status: Certified

Principal Name: Paul Parks

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$100,000 to \$250,000

1981: \$100,000 to \$250,000

1980: \$100,000

No. Professional Staff: Full-time 16

Part-time

Capabilities and Experience of Firm:

Facilities: On-Site--

Major Fields:

No. of Contracts:

(1) Civil Engineering.....	2
(2) Environmental Impacts.....	6
(3) Structural Engineering.....	5

o Parent company located in Boston, Massachusetts; branch offices at 1518 Whittier St., NW, Washington, DC 20012.

Minor Fields:

Access To--

(1) Nuclear Engineering Research.....	*
(in area of aeronautical engineering)	

*Based on corporate and staff experience.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Boston Water & Sewer Commission, F. Gens (617) 426-6046
- o Transportation Systems Center, Department of Transportation,
R. Raab (617) 494-2072
- o Army Corps of Engineers, Waltham, MA

Details of Professional Staff:

Name: Paul Parks

Degree: Professional Engineer

Years Experience: 25+

Fields: Engineering; education; community development.

Name: John O'S. Francis

Degree: MBA, Ph.D. (in process) Management, Statistics

Years Experience: 25+

Fields: Analytical statistics; health care administration;
management science; economic and statistical quality
control; cost benefit analysis.

Single-time Clients:

- o BOSCOM-FMR Properties, R. Taylor (617) 292-6034
- o Town of Burlington
- o Stone and Webster
- o Westover Air Force Base

Notes:

Selected List of Corporate and Staff Experiences.

- o Structural and Civil Engineering
 - worked on design of hydroelectric systems
 - design and development of power plants
 - design of drainage systems (Air Base runways)
 - design of major buildings
 - developed cost estimates of a variety of projects
 - reviewed and coordinated structural engineering concepts in connection with building rehabilitation
 - planned and implemented case studies about water intrusion in tunnels for urban mass transit
 - analyzed destructive vibration on several buildings due to pile driving operations and on sun screens
 - designed and supervised construction of sprinkler system in compliance with existing codes and regulations
- o Aeronautical Engineering
 - Senior Design Engineer on the development and design of the F8U Crusader
 - worked on the design and development of the Regulus Missile (a submarine based missile)
 - worked on the design of large jet engines including the J57 and J75 (all magnesium alloy engine)
 - worked with a team of seven engineers in Nuclear Engineering research attempting to develop a nuclear jet engine.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: OVERVIEW (see also 19, 22, 27)

Company Name: Princeton Economic Research Institute (PERI), Inc.

Address: 900 State Road
Princeton, NJ 08540

Telephone: (609) 924-8891

Year Founded: June, 1980

8(a) Status: Certified

Principal Name: S. Basheer Ahmed

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1980-1982: \$41,000 (1981 best year so far).

No. Professional Staff: Full-time 2

Part-time 2

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

- | | |
|---|---|
| (1) Supply and demand forecasting
(energy-related)..... | 3 |
| (2) Management consulting..... | 2 |
| a. Financial and Organization Analysis
of a Thermal Utility Plant. | |
| b. Proprietary product research. | |

Minor Fields:

- | | |
|-------------------------------|---|
| (1) Nuclear waste siting..... | 1 |
|-------------------------------|---|

Facilities: On-Site--

- o IBM Display Writer.

Access To--

- o conference rooms, computer facilities, report reproduction and graphic services.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Mechanical Technology, Inc. (purchase orders), J. Palmer,
(609) 234-3880 ext. 211

Details of Professional Staff:

Name: S. Basheer Ahmed

Degree: Ph.D., Economics, Texas A & M University

Years Experience: 20

Fields: For Oak Ridge National Laboratory: Nuclear desalination complexes; cost/benefit analyses of nuclear and fossil plants; economic studies of geothermal, solar, and fusion energy systems, and the energy conservation aspects of modular integrated utility systems.

For Oak Ridge Associated Universities and others: developed systems framework for energy forecasts; economic analysis of electric energy systems; manpower forecasts; regional energy systems; and waste heat recovery for energy conservation.

Associate Editor, IEEE Transactions on Systems, Man and Cybernetics

Member of IEEE Energy Committee

Fellow, AAAS

Member, AEA; ORSA; ANS

Listed in Who's Who in Technology Today; Who's Who in Engineering

Single-time Clients:

- o Office of Nuclear Waste Isolation, U.S. Department of Energy,
J. Finley (614) 421-4370
- o RCA, J. Stranix (609) 734-2516

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: OVERVIEW (see also 6, 8, 14)

Company Name: Professional Analysts, Inc.

Address: 743 Country Club Road
Eugene, Oregon 97401

Telephone: (503) 485-6877

Year Founded: 1975

8(a) Status: Certified

Principal Name: John Nelson

Title: President

Average Gross Receipts (3 yrs):
Average Dollar Volume, past 3 years: \$896,000

No. Professional Staff: Full-time 10

Part-time (on a consulting basis)

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Environmental Impacts.....	8
(2) Geology/Geotechnical Engineering.....	4
(3) Meteorology.....	1

Minor Fields:

(1) Statistics.....	*
(2) Probabilistic Risk Assessment.....	*

Facilities: On-Site--

- o Branch offices at 1015 Broadwater, Billings, MT 59101; and at 315 W. Ponce de Leon, Suite 338, Decatur, GA 30030.
- o Digital Equipment Corporation computers.
- o 4WD vehicles, survey instruments, laboratory equipment, drafting/cartographic instruments, photographic equipment, etc.)

Access To--

*Most contracts have included elements of this field.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o U.S. Forest Service, James Keyser (503) 231-3644
- o National Park Service, John P. Thomas (202) 343-7105
- o Bureau of Land Management, John Cunningham (303) 234-6132
- o U.S. Army Corps of Engineers, Jim Mualcahey (916) 440-3400
- o Beak Consultants, Perry Campbell (503) 248-9507

Details of Professional Staff:

Name: John Nelson

Degree: Ph.D./ABD

Years Experience: 15+

Fields: Project Administration; Socioeconomic research; Planning; Statistics; Computers.

Name: Dr. Bhagwati Poddar

Degree: Ph.D., Sociology

Years Experience: 20

Fields: Sociology; economics; anthropology.

Name: Richard Craven

Degree: M.S., Environmental Science

Years Experience: 7+

Fields: Environmental studies; statistical data analysis; technical report writing.

Name: Richard Kent

Degree: M.S., Geology

Years Experience: 7

Fields: Engineering; geology; energy resources; strip mine geology; power plant siting; right-of-way, hydrogeology; minerals exploration.

Single-time Clients:

- o Agency for International Development, Edward H. Thomas (202) 235-8380
- o Bureau of Indian Affairs, Tom Becker (505) 863-9501
- o Northern Natural Gas Company, Robert Moss (402) 691-2364
- o Department of Housing and Urban Development, Leslie Chian (206) 442-5414
- o City of Eugene, Oregon, Lisa Joslen (503) 687-5443
- o Pacific Power and Light, Larry Griffith (503) 243-1121
- o Montana Power Company, Linda Grinn (406) 723-5421
- o Hill County Electric Cooperative, John McChane
- o Stanford Research Institute
- o John Graham and Company

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: OVERVIEW (see also 3, 4, 5)

Company Name: RJO Enterprises, Incorporated

Address: 2126 Espey Court
Crofton, Maryland 21114

Telephone: (301) 721-4000
(301) 858-0500

Year Founded: November, 1979

8(a) Status: Certified

Principal Name: Richard J. Otero

Title: President

Average Gross Receipts (3 yrs):
Dollar Volume, 1982: \$250,000
1983: \$789,000

No. Professional Staff: Full-time 20

Part-time

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Electrical Engineering.....	25
(2) Electronics Engineering.....	38
(3) Emergency Planning (evaluation and/or development of emergency communications systems).....	2

Minor Fields:

No. of Contracts:*

(1) Information Systems.....	13
(2) Air Traffic Control.....	13
(3) Tele-Communications.....	33
(4) Command and control.....	10

Facilities: On-Site--

- o 3,100 square feet of office space.
- o Vitor 9000 computer.
- o Digital Word Processing Computers.

Access To--

- o VAX 11/780 contractual arrangement.

*Based on corporate and staff experiences.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Federal Aviation Administration, H. Perie (202) 246-3290
- o Naval Oceans Systems Center, A. Wuensch (619) 225-2594
- o Isacomm, Inc., B. Tabak (404) 320-1033
- o Defense Communications Agency, R. White
- o Arinc, R. Schmidt (301) 266-4000
- o Computer Sciences Corp., J. Ludford (703) 533-6654
- o Air Force Logistics Command, Col. J. Maley (513) 257-7029
- o Maritel, Inc., D. King (301) 672-1700
- o The Bertman Group (703) 281-7750
- o Internal Revenue Service, J. Mannion (202) 566-4825

Details of Professional Staff:

Name: Richard J. Otero, President
Degree: M.S., Electrical Engineering
Years Experience: 22
Fields: Communications.

Name: Kent Haspert, Vice President
Degree: Ph.D., Electrical Engineering
Years Experience: 18
Fields: Communication systems.

Name: Phillip Walcoff, Executive Vice President
Degree: MSEE, Electrical Engineering
Years Experience: 20
Fields: Communication.

*A representative sample of clients.

Single-Time Clients:

- o Federal Emergency Management Administration (202) 287-3872
- o NASA, J. Sobola (202) 453-2010

Notes:

- o Offices presently have a SECRET level facility clearance and individual members of the RJO staff hold clearances through the level of SECRET.

o Specialty Areas:

- Telecommunications
 - Nationwide, metropolitan, and local area networks.
 - Microwave, satellite, cable, and land mobile radio communications.
 - Switching, automatic call distributors, and private automatic branch exchange systems.
 - Network control systems.
- Information Systems
 - Mainframe, mini, and microcomputers.
 - Software quality assurance, validation, and verification.
 - Management information systems.
 - Electronic mail.
 - Data bases.
 - Terminals.
 - Local area networks.
 - Standards.
- Air Traffic Control
 - Automation.
 - Interfacility communication systems.
 - Data links, navigation, collision avoidance, and avionics systems.
- Command and control
 - Strategic, tactical, and logistics command and control systems.
 - Combat net ratios.
 - Integrated avionics systems.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: OVERVIEW (see also 14, 15, 19, 27)

Company Name: Scientific Systems, Inc.

Address: 54 Rindge Avenue Extension
Cambridge, MA 02140

Telephone: (617) 661-6364

Year Founded: September, 1976

8(a) Status: Certified

Principal Name: Raman K. Mehra

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$2 Million

Growth Pattern: 33% one-year increase in dollar volume in 1980;
25% in 1981; and 20% in 1982

No. Professional Staff: Full-time 40

Part-time 5

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Meteorology.....	4
(2) Nondestructive Examination.....	1
(3) Probabilistic Risk Assessment.....	4
(4) Statistics.....	4

Minor Fields:

(1) Electrical Engineering.....	*
(2) Electronics Engineering.....	*
(3) Regulatory Analysis.....	*

Repeat Clients:

- o Hanscom Air Force Base, Tim Bunting (617) 861-3498
- o NOAA, Don Gilman (301) 763-8155
- o Department of Energy, Ray Dunlap (202) 252-1165
- o Air Force Human Resource Lab.

^See professional staff experiences.

Facilities: On-Site--

- o Branch office in Dallas, Texas
- o 14,000 square feet of office space.
- o VAX 11/780 computer.

Access To--

- o Computers at Harvard University.

Single-time Clients:

- o U.S. Air Force, Mr. Moyzis (513) 255-5039

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Details of Professional Staff:

Name: Ramon K. Mehra, President

Degree: Ph.D., Control System Theory

Years Experience: 15

Fields: Control system design, computer simulation, stability analysis, optimal control and estimation, numerical solution of optimization problems; system identification, adaptive and stochastic control, time series analysis, fault detection and diagnosis using operating data.

Notes:

- o Worked on the design of autopilots for aircraft, using modern control theory. Dissertation research concerned with the application of optimum smoothing and conjugate gradient methods to inertial navigation and aerospace problems. Member of a technical staff responsible for applying estimation and control theory to inertial navigation systems. Developed several computer programs for optimum filtering, smoothing and identification of linear dynamic systems. Has developed a new approach for obtaining optimal inputs to identify linear dynamic systems, and to design adaptive control systems for complex industrial processes. Numerous publications (100+).

Name: Donald E. Gustafson, Vice President

Degree: Ph.D., Engineering

Years Experience: 21

Fields: Biomedical specialty; modern estimation and detection theory, biomedical systems, stochastic control systems, pattern recognition, dynamic system modeling, numerical optimization, software system development, computer simulation.

Notes:

- o Has participated in the design of guidance control systems for Polaris; statistical analyses of missile guidance and navigation errors. Has conducted studies in strategic systems analysis and developed comprehensive six-degree-of-freedom dynamic simulations for missile analysis.

Name: Alex L. Kosmala

Degree: B.S.

Years Experience: 20

Fields: Software development; post-graduate experimental work in the field of low temperature physics, investigating applications of superconductivity.

Details of Professional Staff: (Continued)

Notes:

- o Before joining this company, directly responsible for several software development efforts for the Air Force and for NASA: Responsible for the first guided Apollo missions and helped establish the techniques of software integration and verification that were employed on this and subsequent missions.

Name: John Baillicul

Degree: Ph.D., Applied Mathematics

Years Experience: 24

Fields: Algebraic systems theory; ordinary differential equations; stochastic control and optimal control.

Notes:

- o Has been involved in biomedical research -- pattern recognition, simulation of drug interactions, and the development of information theoretic models of medical diagnosis. Developed most of the software for the standard numerical functions in a IBMPS computer system. Recent research focuses on modeling problems for large scale systems, design and stability analysis of circuits, and control of nonlinear systems. Project manager on several DOE projects on transient stability analyses and security assessment for power systems.

Notes:

- o A SECRET facility clearance has been granted by the Defense Logistics Agency, Boston, MA (FSC #2N787).
- o Other Professional Staff Fields:
 - Control systems theory and rigid body dynamics
 - Mathematics
 - Statistics
 - Engineering physics
 - Economic systems
 - Chemical engineering
 - Electrical engineering
 - Mechanical engineering

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: OVERVIEW (see also 27)

Company Name: Statistica, Inc.

Address: 51 Boston Street
Rockville, Maryland 20850

Telephone: (301) 424-1911

NAEP Follower: N/A

NAEP Status: Certified

Principal Name: Riaz H. Kana

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume: 1982: \$80,000; 1983: \$500,000

Growth Pattern: 50% one-year increase in dollar volume in 1980;
60% in 1981, and no increase in 1982.

No. Professional Staff: Full-time 7

Part-time 4

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Statistics.....	6
(2) Systems-Data Base Design.....	3

Minor Fields:

Repeat Clients:

- o Bureau of Community Health Services, G. Bendley (301) 443-2750
- o Harry Diamond Laboratories, John D'Agostino (301) 394-1090
- o FAA Technical Center, Gary C. Wright (609) 484-5137

Facilities: On-Site--

- o 2,000 square feet of office space.
- o Micro-computers on site.

Access To--

- o Time sharing with major systems in the area.

Single-time Clients:

- o Federal Highway Administration, A. Argomon (202) 755-9370
- o Federal Aviation Administration, John Dupree
- o Department of Transportation/NHTSA, A. Jones (202) 426-2102

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Details of Professional Staff:

Name: Riaz H. Rana, President

Degree: B.S., Physics/Mathematics; M.S., Program in Mathematical Statistics

Years Experience: 17

Fields: Statistical analysis of continuous and discrete data; sampling survey and design, simulation modeling; operations research, Time Series analysis; Kalman Filtering Application to Econometric Modeling and Forecast Modeling; Reliability, Maintainability and Availability analysis; threat analysis; telemetry data analysis; pattern recognition; and communication command and control analysis.

Name: Richard McLamb

Degree: B.S., Mathematics

Years Experience: 15

Fields: Management, data base; data analysis

Name: Robert Neale

Degree: B.S., Mathematics

Years Experience: 16

Fields: Interactive graphic systems; cartographics data base.

Name: Jerry Ashworth

Degree: None

Years Experience: 17

Fields: Public Administration

Notes:

o Technical sub-areas:

Applied Statistics

- Programmed statistics text development for Highway Traffic and Safety Engineers.
- Statistical methods to yield accurate assessment of submarine launched ballistic missiles.
- Statistical methodology development for weapon systems simulation.
- Forecasting model for health care.
- Statistical survey for post service.
- Computer simulation model.
- Market research survey and technological growth assessment.
- Econometric modeling.

Notes: (Continued)

- Mathematical model development for accidents and safety.
- Manpower forecasting.

Systems Engineering

- Complex systems analysis.
- Systems optimization studies.
- Systems simulation modeling.
- Systems cost effectiveness studies.
- Communications systems engineering.
- Communications network modeling.
- Command, control and communications systems.
- Life cycle analysis.
- Reliability, maintainability, and availability analysis.
- Data communications engineering.
- Radar and navigation systems.
- Systems safety analysis.
- Real time simulation.

Management Information Systems

- Systems software development.
- Data base systems management.
- Advanced system concept and design.
- Computer communications network design.
- Simulation and modeling.
- Graphics generation.
- Strategic planning.
- Business systems development.
- Systems audits.
- Systems security.

Facility Management and Data Services

- Operational computer facilities management.
- Computer operations.
- Manual systems operation and maintenance.
- Hardware/software systems analysis and maintenance.
- Systems programming.

o Staff have knowledge of various high level languages, and experiences in numerous hardware configurations.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: OVERVIEW (see also 1, 3, 13)

Company Name: Technology Applications, Inc.

Address: 3 Skyline Place
5201 Leesburg Pike, Suite 1000
Falls Church, VA 22041

Telephone: (703) 931-2000

Year Founded: 1977

8(a) Status: Certified

Principal Name: James I. Chatman

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume Year Ending April 1984: \$11,000,000

Year Ending April 1983: \$ 5,000,000

Year Ending April 1982: \$ 950,000

Growth Pattern: Steadily increasing, expanding rapidly

No. Professional Staff: Full-time 238

Part-time 3

Consultants 10

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

- | | |
|---------------------------------|---|
| (1) Chemical Engineering..... | 3 |
| (2) Electrical Engineering..... | 4 |
| (3) Mechanical Engineering..... | 4 |

Minor Fields:

- | | |
|--|----------------|
| (1) Marine Engineering..... | 14 |
| (2) Hydraulic Engineering..... | 3 |
| (3) Systems Engineering..... | 3 |
| (4) Structural, Safety, Materials, Civil,
Aeronautical, Systems Safety..... | 1 in each area |

Facilities: On-Site--

- o PDP 1144
- o 2 North Star Horizon micro-computers

Access To--

- o David W. Taylor Naval Ship Research and Development Center; Carderock, MD and Portsmouth, VA.
- o NASA - Langley Research Center; EPA-Athens, GA.
- o Hampton Roads Industrial Division; Norfolk, VA.
- o Numerous time-sharing vendors' hardware including IBM, UNIVAC, Honeywell and DEC mainframes with a wide variety of compilers, statistical packages and Data Base Management Systems Software.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o David Taylor Naval Ship Research & Development Center,
Ed C'Neal, Walter Zietfuss (202) 227-1853
- o Naval Station Systems Command, Ralph Yeatles (202) 692-2434(5)

Details of Professional Staff:

Name: Edward Graham

Degree: M.S. International Relations; B.S. Engineering

Years Experience: 30

Fields: Engineering; weapons systems requirements; naval, aerospace and aviation equipment development..

Name: Theodore J. Lutz

Degree: M.S. Systems Analysis; B.S. Electrical Engineering

Years Experience: 8

Fields: Electrical engineering; systems analysis; marine engineering.

Name: Alexander M. Lehrer

Degree: B.E.E. Electrical Engineering; Registered P.E. Mechanical Engineering and Naval Architecture

Years Experience: 44

Fields: Electrical engineering; mechanical engineering; naval engineering.

Name: Dr. Franklin G. Fisher, Jr.

Degree: Ph.D., Sociotechnical Systems; M.P.A.; M.S.S.M.; B.S.S.E.

Years Experience: 25

Fields: Systems engineering; public administration.

Name: Emil M. Szten

Degree: B.S. Civil Engineering, Mechanical Engineering, Naval Architecture; Registered P.E.

Years Experience: 43

Fields: Government and industry experience.

Single-time Clients:

- o TRW Defense Systems Group, Edward Metcalf (703) 734-6270
- o Federal Aviation Administration, Warren Lichtenberg (202) 426-4897
- o U.S. Coast Guard, Dave Potter (202) 426-1204
- o Maritime Administration
- o Department of the Army, Col. Woodard (202) 697-1486
- o Naval Air Systems Command, Commander Kalapas (202) 692-1367
- o Urban Mass Transportation Administration, Rhoda Shorter (202) 426-9157
- o Federal Highway Administration, John Fegan (703) 285-2422
- o Environmental Protection Agency, Heinz Kollig (404) 546-3447
- o General Services Administration, John Landers (202) 535-7423

Notes:

o Personnel capable in:

- Chemical Engineering
- Civil Engineering
- Electrical Engineering
- Mechanical Engineering
- Transportation Engineering
- Aerospace Engineering
- Industrial Engineering
- Physics
- Chemistry

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: OVERVIEW (see also 10, 19, 24)

Company Name: The Maxima Corporation

Address: 7315 Wisconsin Avenue, Suite 909 North Building
Bethesda, MD 20814

Telephone: (301) 652-6366

Year Founded: 1978

8(a) Status: Certified

Principal Name: Kurt Snapper

Title: Corporate Vice President

Average Gross Receipts (3 yrs):

Growth Pattern: In 5 years, staff grew from 5 to 300.

No. Professional Staff: Full-time 300

Part-time

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Human Factors Engineering.....	12
(2) Probabilistic Risk Assessment.....	8
(3) Safeguards.....	11
(4) Health Physics.....	6

Facilities: On-Site--

- o Computer Center with: HP1000 minicomputer; ARTEMIS software with color graphics display capability; computer-aided design programs.
- o Safeguarding procedures approved for storage of SECRET materials.
- o Training center (AV).
- o Reference library.
- o Word processing, photo reproduction and binding facilities.
- o Full-time courier service.
- o Survey operations center with toll-free lines.

Minor Fields

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Union Carbide Corporation, Bill Gregg (615) 574-8457
- o Oak Ridge National Laboratory, W. Bibb (615) 576-0742
- o Department of Energy/Office of Safeguards and Security, J. Stewart (202) 252-5162

Details of Professional Staff:

Name: Kurt J. Snapper
Degree: Ph.D. Decision Theory (Experimental Psychology)
Years Experience: 10
Fields: Bayesian statistics; probabilistic inference; utility and decision analysis; human factors; safeguards and security; environmental decision making

Name: William G. Stillwell
Degree: Ph.D. Psychology (Quantitative)
Years Experience: 7 (2 post-doctorate)
Fields: Decision analysis; risk analysis; game theory; utility analysis.

Name: David A. Seaver
Degree: Ph.D. Mathematical Psychology
Years Experience: (4 post-doctorate)
Fields: Evaluation methodology; decision-theory; policy analysis; risk analysis; human factors.

Name: Donald G. Jacobs
Degree: Ph.D. Agronomy
Years Experience: 25
Fields: Assessment of environmental impacts of energy production; management of nuclear waste; environmental health.

Single-time Clients:

- o Sandia National Laboratory, L. Weston (505) 844-2460
- o U.S. Navy (various offices), F. J. Miller (703) 663-7761
- o NRR/ONRR/Division of Facility Operations, A. Barnold, (301) 443-5976

Notes: Key staff hold Q and DOD clearances.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: OVERVIEW (see also 6, 20, 23, 29)

Company Name: Trans Systems Corporation

Address: 160 Maple Avenue, East
Vienna, VA 22180

Telephone: (703) 281-4498
(703) 281-1500

Year Founded: 1976

8(a) Status: Certified

Principal Name: John C. H. Woo

Title: President

Average Gross Receipts (3 yrs):
Dollar Volume, 1982: \$300,000

No. Professional Staff: Full-time 10

Part-time 6

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:*

(1) Environmental Impacts.....	13
(2) Quality Assurance.....	5
(3) Reliability.....	5
(4) Transportation.....	6

Minor Fields:

(1) Safety Analysis.....	**
(2) Waste Management.....	**
(3) Statistics.....	**
(4) Civil Engineering.....	**
(5) Structural Engineering.....	**
(6) Nuclear Reactor (technical translations).....	1

Facilities: On-Site--

- o Three offices: Two in Vienna, Virginia, with 1800 square feet of office space; and one in Burlington, Massachusetts, with 900 square feet.
- o Electric typewriters and word processing equipment at all sites.

Access To--

- o Computer terminals hooked to Boeing Computer Network, Control Data and PRC Systems.

*A representative sample of number of contracts.

**Based on professional staff fields.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Transportation Systems Center, A. A. Tauro (617 494-2421);
G. M. Frederick (617) 494-2180
- o Federal Aviation Administration, R. L. Kopp (202) 426-8250;
W. R. Brown (202) 426-8225; K. W. Henck (202) 426-8420;
- o Urban Mass Transportation Administration, J. E. Kyle (202) 755-4980
- o Federal Railroad Administration, F. L. Mayronne (202) 755-9464;
A. Guy (202) 755-9464
- o Federal Highway Administration, A. Argamon (202) 755-9370
- o Bernard Johnson, Inc., J. Zimmer (301) 493-8400

Details of Professional Staff:

Name: John C. H. Woo, President

Degree: M.S., Industrial Engineering; M.S., Transportation Engineering;
Ph.D. (Candidate) Industrial Engineering

Years Experience: 26

Fields: Systems engineering; computer programming; software design;
human sector and cost-benefit evaluations.

Name: Albert Bebbs

Degree: M.A., Physics

Years Experience: 25

Fields: Nuclear science; research and development; environmental studies;
computer programming.

Name: Barbara Shapiro

Degree: Quantitative Analysis

Years Experience: 8

Fields: Systems analysis; mathematical analysis; cost-benefit analysis.

Name: S. Chowhurdry

Degree: Ph.D., Statistics and Economics

Years Experience: 15

Fields: Computer data base development.

Notes

- o The principals of the firm have over 20 years of professional experience in all phases of systems integration and facility planning, socioeconomic and environmental analyses, terminal design and activity network evaluation, and optimization of movement systems. Specialization has also been in requirement surveys, modeling, planning and programming, and data systems management.

Single-time Clients:

- o OEI, Inc., J. Bauchspies (301) 565-4924
- o Bureau of Mines, R. J. Simonich (303) 234-4421
- o Kamber Engineering, Inc.
- o Nuclear Regulatory Commission (technical translations), C. Abbott (202) 492-7566
- o National Park Service, D. Sutfin (202) 724-6781
- o D. C. Department of Housing and Community Development,
R. A. Montgomery (202) 724-8686
- o Transource, Incorporated, J. R. Taylor (201) 994-4520

Notes: (Continued)

- o Trans Systems Corporation and its professional staff capabilities include the following:
 - Nuclear Science and Engineering.
 - Systems Integration and Cost Effectiveness Studies.
 - Socioeconomic and Environmental Analyses.
 - Environmental Data Bank (EDB) Development - Full Range.
 - Quick Response Computer Support Tasks.
 - Computerized Program Evaluation Support.
 - Human Factors Engineering and Evaluation.
 - Traffic and Logistic Network Simulation.
 - Energy Efficiency Evaluation in Transportation.
 - Community Development and Citizen Participation.
 - Compatible Land Use Planning and Economic Development.
 - Integrated Multimodal Transportation Planning.
 - Computer Application - Forecasting and Network Simulations.
 - Public Information Systems and Market Development.
 - Safety, Accident Analyses, Statistical Analyses and Surveys.
 - Communication and Brochure Development.
 - Intermodal Transportation Planning.
 - Electric Vehicle Development.
 - Energy Systems Analysis.
 - Solar Energy Applications.
 - International Environment Data Bank.
 - Users Manual and Systems Manual Preparation.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: OVERVIEW (see also 2, 6, 11, 29)

Company Name: Urbitran Associates, Inc.

Address: 15 Park Row
New York, N.Y. 10038

Telephone: (212) 267-6310

Year Founded: 1970

8(a) Status: Certified

Principal Name: Robert B. Lee

Title: President

Average Gross Receipts (3 yrs):

Growth Pattern: 60% one-year rate of growth in 1980;
25% in 1981, and 23% in 1982.

No. Professional Staff: Full-time 94

Part-time 20

Capabilities and Experience of Firm:

Facilities: On-Site--

Major Fields:

No. of Contracts:*

(1) Civil Engineering.....	13
(2) Environmental Impacts.....	20
(3) Hydrology.....	21
(4) Transportation.....	28

- o Regional offices in Washington, DC; Stamford, CT; Los Angeles, CA; Seoul, Korea; San Francisco, CA.
- o Headquarters has about 7,000 square feet of office space.
- o Two micro-computers.

Minor Fields:

No. of Contracts:*

(1) Air Quality Measurement and Analysis.....	18
(2) Noise Measurement.....	12
(3) Route Location Studies.....	3
(4) Goods Movement.....	4
(5) Structural Design and Bridge Rehabilitation....	11
(6) Construction Inspection.....	6

Access To--

- o Mainframe computer.

Clients:**

- o New York City Department of Transportation, Sam Shorts (212) 830-7500
- o New York City Department of City Planning, Richard Todd (202) 566-8505
- o City of Newark, N.J., Fernando Rubio (201) 733-8425
- o New Jersey Department of Transportation, Ross Stevenson (609) 292-6302
- o South West Regional Planning Agency (SWRPA), Conn., Richard Carpenter (203) 866-5543

Clients:** (Continued)

- o Federal Highway Administration, John Fegean (202) 426-9710
- o Urban Mass Transportation Administration, Richard Steinman (202) 426-4004
- o New York State Department of Transportation, John Marino (212) 938-3309

*Partial number of contracts

**Partial list of Clients; and information on whether repeat or single-time clients not available.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Clients:**

- o Connecticut Department of Transportation, Jim Byrnes (203) 566-4272
- o World Bank
- o Government of Korea
- o City of Caguas, Puerto Rico
- o St. Croix, U.S. Virgin Islands
- o Plateau State, Nigeria

Details of Professional Staff:

Name: Robert B. Lee, President

Degree: Ph.D., Civil Engineering

Years Experience: 20

Fields: Traffic, transportation, environment.

Name: Nicholas Bellizzi, P.E.

Degree: M.A., Civil Engineering

Years Experience: 10

Fields: Highways.

Name: Paul J. Menaker

Degree: Ph.D., System Engineering

Years Experience: 10

Fields: Transit and Transportation; Environmental Systems.

Name: Tim Miller

Degree: B.S., Environmental Planning

Years Experience: 8

Fields: Environmental Services.

Name: Michael Reviv, P.E.

Degree: B.S., Civil Engineering

Years Experience: 10

Fields: Structural Engineering.

Notes

- o Urbitran has worked with some of the nation's leading consulting firms and A-E organizations, providing specialized professional services under various contractual arrangements.

**Partial list of Clients; and information on whether repeat or single-time clients not available.

Clients:** (Continued)

- o Department of Housing and Urban Development
- o Federal Emergency Management Agency
- o U.S. Army Corps of Engineers
- o New Jersey Transit Corporation
- o New York State Metropolitan Transportation Authority
- o New York State Department of Correctional Services
- o New York City Transit Authority
- o County of Essex, New Jersey
- o County of Middlesex, New Jersey
- o City of Buffalo, New York
- o City of Rochester, New York
- o City of Detroit, Michigan
- o North Hempstead Planning Department
- o Norwalk Transit District
- o City of Stamford, Connecticut
- o Port Authority of New York and New Jersey
- o Tri-State Regional Planning Commission
- o Housatonic Valley Council of Elected Officials (HVCEO) Conn.
- o Southeast Michigan Transportation Authority (SEMTA)
- o Niagara Frontier Transportation Authority
- o New York Convention Center Development Corporation
- o New York State Urban Development Corporation
- o New York City Public Development Corporation
- o Mobil Oil Corporation
- o Consolidated Edison Corporation
- o Brooklyn Union Gas Company
- o BA Capital Corporation
- o Academy of Aeronautics, LaGuardia Airport
- o Chasanoff Organization
- o Equitable Life Assurance Company
- o Lieberman Properties
- o Rouse Corporation
- o Fulton Fish Market Cooperative Corporation
- o Flushing Mall Associates
- o Numerous Citizens' Groups, Attorneys and A-E Firms

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: OVERVIEW (see also 13, 16, 25)

Company Name: Viking Energy Corporation

Address: 121 N. Highland Avenue, Suite 203
Pittsburgh, PA 15206

Telephone: (412) 363-7777

Year Founded: 1978

8(a) Status: Certified

Principal Name: Jack Saluja

Title: President

Average Gross Receipts (3 yrs):
Dollar Volume, 1982: \$200,000 - \$250,000

No. Professional Staff: Full-time 5

Part-time 10

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Mechanical Engineering.....	3
(2) Nuclear Engineering.....	3
(3) Safety Analysis.....	3

Minor Fields:

(1) Coal Conversion Studies.....	*
(2) Environmental (water quality; airborne pollutants) Studies.....	*

Facilities: On-Site--

o Inhouse:

- Reproduction Facilities.
- Inhouse Reference Library.

Access To--

- o CDC Computer Terminal.
- o Additional facilities available for technical (library) research and computing:
 - University of Pittsburgh Library.
 - Carnegie-Mellon University Facilities.
 - University of Michigan Facilities.
- o Additional Personnel Resources are available from the universities for:
 - Programming.
 - Concepts Development.
 - Graphics.
 - Software Development.

*Information not provided.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o NASA, Lewis Research Center, Stan Marsick (216) 433-4000
- o Department of Energy, Lloyd Lorenzi (412) 675-6136
- o Nuclear Regulatory Commission
- o USAID/DOE, Dan Bainstock (412) 675-5715
- o Westinghouse Electric, W. Calway (412) 928-2442
R. Mentz (412) 928 2181
- o Flowtran, Inc.

Details of Professional Staff:

Name: Jack Saluja

Degree: Ph.D., Nuclear Engineering

Years Experience: 24

Fields: Nuclear design and analysis of PWR cores; accident analysis of PWR; control systems design and analysis; system modeling.

Name: C. H. Brown

Degree: B.S., Structures

Years Experience: 30

Fields: Structural/stress analytical methods for reactor components and subsystems; structural/mechanical effects of HCDA on reactor vessel and internals; dynamics of structures; high temperature structural design; fatigue and effects of cyclic loading; ANSYS; NASTRAN, NARC.

Single-time Clients:

- o Brown Boveri Compugard, Romesh Wadhvani (412) 787-3000
- o CONSAD Research Corporation, Wilbur Speger (412) 363-5500
- o Pittsburgh Testing Laboratory, David Dunn (312) 449-5050
- o Burns & Roe, Paramus, NJ, J. M. Gans
- o Parameter, Inc., Elm Grove, WI, Richard Lofy (414) 786-7580

Notes:

- o Types of services offered

- Analytical Services (mathematical models).
- Review Services in Operating and Non-Operating Plants.
- Breeder Reactor Program Studies.
- Nuclear Waste Management.
- Emergency Planning.
- Risk Analysis.
- Training Services.
- Quality Assurance/Quality Control Services.
- Studies of Power System Capabilities.
- Application of Robots for Decontamination.

- o Plus eleven regular consultants, and three associates at:

- Viking Energy - Colorado.
- Pittsburgh Testing Laboratory.
- CONSAD Research Corporation.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: OVERVIEW (see also 6, 11, 30)

Company Name: Waste & Water International

Address: 5850 Shellmond Street, Suite 100
Emeryville, California 94608

Telephone: (415) 428-2381

Year Founded: 1978

8(a) Status: Certified

Principal Name: Akhtar Hamid

Title: Board Chairman

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$1.1 million

Growth Pattern: 26% one-year increase in dollar volume in 1981 and
22% in 1982.

No. Professional Staff: Full-time 15

Part-time

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Environmental Impacts.....	4
(2) Hydrology.....	*
(3) Waste Management.....	28
(4) Environmental Technical Training.....	25
(5) Environmental Systems Evaluations.....	8

Minor Fields:

Facilities: On-Site--

- o 2,900 square feet of office space.
- o Library.
- o Apple II and CompuPro computers.
- o 3 Drafting Stations.

Access To--

*Based on Professional staff's experiences and fields.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o CH2M Hill, D. Evans (415) 652-2426
- o City & County of San Francisco, R. T. Cockburn (415) 558-3394 and D. Evans (415) 652-2426
- o City of Oakland/Piedmont, CA., B. Bauer (415) 273-2000

Details of Professional Staff:

Name: Akhtar Hamid, Principal
Degree: M.S.C.E., Engineering; Ph.D.
Years Experience: 13
Fields: Environmental Engineering

Name: Henry C. Hyde
Degree: M.S.C.E., Sanitary Engineer
Years Experience: 17
Fields: Waste and water management (planning, design, construction and operation of municipal and industrial wastewater systems and water supply facilities).

Name: Peter H. Bellows
Degree: B.S., Civil Engineering; M.S., Sanitary Engineering
Years Experience: 3
Fields: Civil and environmental engineering

Other Professional Staff Fields:

- Civil Engineering (2).
- Water Quality Control Technologist.
- Chemical Engineer.
- Resource Developer.

Single-time Clients:

- o PBQ6D, Inc., E. Altshuler (415) 986-2929
- o Black & Veatch, H. R. Soennichsen (415) 944-5770
- o Cooper & Clark, R. L. Nedell (415) 235-2360
- o Brown and Caldwell, D. O. Malloy (415) 937-9010
- o Landal Institute, G. Wadell (415) 332-4224
- o City of Emeryville, M. Buell (415) 658-8901
- o North San Mateo Sanitation Dist., P. Archuleta (415) 755-6557
- o City of Palo Alto, S. Hayashi (415) 329-2598
- o East Bay Dischargers, Authority (415) 278-5910
- o GMP Associates, Inc., L. Mansfield (808) 841-4112
- o Contra Costa Sanitary District, J. McCoy (415) 934-6727
- o Vallejo Sanitation & Flood Control, D. Sherzinger (707) 252-9217
- o City of Arcata, F. Klopp (707) 822-5951
- o U.S. Environmental Protection Agency, R. Bowker (513) 684-7611
- o City of Santa Rosa, M. Steele (707) 576-5141

Notes:

- o Specific experience related to industrial waste includes: development of a cost recovery program for a city; an industrial use ordinance for approximately 1,500 industries; and a program for determining the impact of priority pollutants from industrial, domestic and commercial sources and the wastewater treatment plant processes and receiving waters of the city.
- o Specific experience related to industrial waste control includes: determination of the impact of trace materials and other industrial pollutants on wastewater sludge quality; industrial waste load allocations; survey and monitoring programs; preparing pre-treatment recommendations; and wastewater treatment sludge management and on-site wastewater systems.
- o Examples of staff water studies related experience: water supply master plan for two cities; geohydrologic groundwater studies; and groundwater geohydrology.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: OVERVIEW (see also 1, 2, 6, 30)

Company Name: Wch Industries, Inc.

Address: 14 Felton Street
Waltham, MA 02154

Telephone: (617) 894-7022

Year Founded: 1978

8(a) Status: Certified

Principal Name: William Clark Harrison

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$320,000

Growth Pattern: 50% one-year rate of growth in 1982;
36% in 1983

No. Professional Staff: Full-time 20

Part-time 23

Capabilities and Experience of Firm:

Major Fields:

	<u>No. of Contracts:</u> *
(1) Waste Management.....	10
(2) Civil Engineering.....	10
(3) Environmental Impacts.....	10
(4) Chemical Engineering.....	9

Minor Fields:

Repeat Clients:

- o U.S. EPA**
- o U.S. Army (Watertown, MA)**
- o City of Peabody, MA**
- o U.S. Air Force (Hanscom AFB, MA), Peter Caravassos (617) 271-2827
- o Metro Dist. Comm., Boston, MA (via M & E), Dan Donahue (617) 367-4000

Facilities: On-Site--

- o 8,000 square feet of office space.
- o A branch office in Washington, DC (500 square feet).
- o Conference room; library.
- o Fully equipped with electronic office equipment.
- o Drafting equipment.

Access To--

- o Computer terminal.

Single-time Clients

- o Environmental Services (Annapolis MD)**
- o Lynn Regional Water (MA) [via Clinton-Bogert], David Ziaks (201) 944-1676
- o City of Brockton, MA; Fay, Spofford, Thorndike, George Reece (617) 863-8300
- o New York Environmental Facilities Corp., Albany, NY**
- o R. I. Dick & Associates**
- o Ft. Lauderdale Sewage (FL)**
- o U.S. Army (Watertown, MA)**
- o Washington State University**
- o Whitman Plating Company**
- o Poole Silver Co.*
- o Holo-Krome Co.*
- o General Electric (Ashland, MA)*
- o Town of Shirley, MA**

*Representative number of contracts.

**Professional staff experience.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Single-time Clients: (Continued)

- o Town of Brookfield, MA**
- o U.S. Air Force, Loring AFB, ME - startup stage
- o U.S. Army Corps of Engineering, New England Division**
- o Bedford VA Hospital, Bedford (MA), Nick Rago (617) 275-7500
- o City of Fall River, MA (via C. E. Maguire) Anthony Prata (617) 890-0100
- o Boston Redevelopment Authority (via C.E. Maguire), Art Landers (617) 890-0100
- o EPA Region I**
- o City of Saco, MA**
- o DPW Commonwealth of MA (Boston)**
- o City of Rochester, NH**

Details of Professional Staff:

Name: John H. Baratta, Vice President/Chief Engineer

Degree: B.S. Civil Engineering; M.S. Work/Sanitary Engineering

Years Experience: 18

Fields: Directing and coordinating planning and design engineering; supervises professional design specialists (architecture, landscape architecture, HVAC, electrical and civil engineering; wastewater treatment, transportation engineering, utility systems, hazardous waste, ocean/harbor/coastal engineering, municipal engineering, water resources and urban design); designing wastewater/sewage/drainage facilities; evaluating pumping stations, and other treatment facilities; cost analysis and administering construction contracts

Name: Sushil K. Batra, Senior Mechanical Engineer

Degree: B.E. Electrical Engineering; S. M. Mechanical Engineering

Years Experience: 29

Fields: Power plant engineering (operation, maintenance and design); 15 years in a large industrial plant with cogeneration; developed and installed a preventive maintenance program and introduced check charts and maintenance schedules; directed wide range of energy related studies including several related to technology, economics and application of boiler systems including alternative fuels; originated the coal-oil mixture combustion demonstration at Salem Harbor Station and was directly involved in the preparation, design and development of the system.

*Representative clients.

**Professional staff experience.

Single-time Clients: (Continued)

- o MASSPORT (via JMCSA), Steve Davis (617) 890-3737
- o EPA, Boston, MA (via M & E) - tasks on hold
- o EPA Region 4**
- o EP Garrepy Co.**
- o Boston Water & Sewer Comm. (via M & E), James Colantonio (617) 367-4000

Details of Professional Staff: (Continued)

Name: Bruce D. Norian, Senior Facility Engineer

Degree: Electrical Engineering and Aeronautical Engineering Courses

Years Experience: 21

Fields: HVAC analysis; energy use; energy optimization; general operations supervision.

Name: James H. Johnson, Senior Sanitary Engineer

Degree: M.S., Sanitary Engineering; Ph.D. Applied Science

Years Experience: 15

Fields: Chemical sludge and hazardous material disposal; industrial wastewater surveys; and design and study of wastewater treatment facilities.

Name: Sidney Levin, Senior Safety and Health Engineer

Degree: B.S. Physics; M.S. Work

Years Experience: 31

Fields: Safety and health engineer; radiological safety, hazardous waste management; environmental assessment, control and sampling; Nuclear Regulatory Commission Licensing. Recognized nationally for his knowledge and expertise in the safety aspects of depleted uranium processing.

Notes:

- o Additional Professional Staff Fields -- Chemical Engineering (2); Civil Engineering (2); Mechanical Engineering (2); Mathematics/Physics; Electrical Engineering (2); Physics (2); Sanitary Engineer; Work (2); Data Processing Training Specialist; Administrative Management; Geophysics; Economics (2); Theory and Administration; Urban and Environment Architect; Environmental Engineer (5); Data Base Manager; Systems Engineer.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: OVERVIEW (see also 2, 3, 13, 31)

Company Name: Wilson & Associates, Inc.

Address: 4439 Reading Road
Cincinnati, Ohio 45229

Telephone: (513) 641-2006

Year Founded: 1971

8(a) Status: Certified

Principal Name: Henry Wilson, Jr., P.E.

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$100,000-\$250,000 in fees for direct Federal work; \$500,000-\$1 Million for all other domestic work.

Growth Pattern: Steady

No. Professional Staff: Full-time 31; 2 professional support

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Civil engineering (building design, construction, rehabilitation).....	166
(2) Electrical engineering.....	34
(3) Mechanical engineering.....	131
(4) Water chemistry.....	7

Minor Fields:

(1) Structural engineering (design, construction, rehabilitation).....	91
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Facilities: On-Site--

- o Three fully operational word processing systems; currently investigating the CADD System and an engineering system for analysis and design.

Access To--

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o University of Cincinnati, John J. Reese (513) 475-6161
- o National Institute of Occupational Safety Hazards, Bert Coble (301) 443-5730
- o City of Cincinnati, Steve Bloomfield (513) 352-3471
- o Cincinnati Public Schools C. W. Carroll (513) 369-4024
- o Cincinnati Metropolitan Housing Authority, Henry Stefanik (513) 721-4580
- o Cincinnati Job Corps Center, Howard Stallworth (513) 651-2000

Details of Professional Staff:

Name: Henry Wilson, Jr., P.E.

Degree: A.S., Engineering

Years Experience: over 24 years

Fields: Civil, structural, electrical, and mechanical engineering design and construction administration experience.

Name: Hosea Frazier, P.E.

Degree: B.S. Architecture; M.S. Candidate (Structural Engineering)

Years Experience: over 16 years

Fields: Structural engineering, project management; structural design in reinforced concrete, steel and timber.

Name: Richard H. Mellot, A.I.A.

Degree: B.S., Architecture

Years Experience: over 10 years

Fields: Design, supervision; Project Architect for numerous Commercial and institutional buildings.

Single-time Clients:

- o Ohio Department of Transportation, Donald Huhman (614) 773-2691
- o Metropolitan Sewer District, Richard Venderhoof (513) 352-4811
- o Ohio Historical Society, John Flemming (614) 466-1500
- o Warner Amex Cable Communications, Carlos Pesant (212) 484-7778
- o Nevele, Inc., Pauline Strayhorne (513) 221-7700
- o Black & Veatch, James Latham (913) 967-2000
- o Blue Ridge Realty, William T. Earls (513) 621-6000
- o Engineering Science, Inc., Andy Loven (404) 325-0770
- o City of Covington, KY, Terry Hughes (502) 292-2291

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: OVERVIEW (see also 3, 4)

Company Name: Wilson Hill Associates, Inc.

Address: 1025 Vermont Avenue, N. W., Ninth Floor
Washington, D.C. 20005

Telephone: (202) 842-7700

Year Founded: 1978

8(a) Status: Certified

Principal Name: Patricia W. Hill

Title: President

Average Gross Receipts (3 yrs): 4.4M

Dollar Volume, 1983: \$4.8 Million

Growth Pattern: 45% one-year increase
in dollar volume in 1981
and no change in 1982

No. Professional Staff: Full-time 83

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Computer Systems Engineering (hardware
engineering and software systems)..... 90+

Facilities: On-Site--

- o Washington, D.C., Corporate Headquarters, 13,000 sq. ft.
- o Sagamore, Massachusetts, 1,500 sq. ft.
- o Rosslyn, Virginia, 1,500 sq. ft.
- o Wang VS80, Hewelett-Packard 250, and 3 Apple II+ computers; Data General Eclipse MV 8000.
- o Manufacturing equipment.
- o 24,000 sq. ft. plant on Long Island, New York, fully equipped for the fabrication of steel, aluminum and exotic metal assemblies and systems.
- o Resources and facilities necessary to design and fabricate the the non-computer components of computer-based systems, and to integrate the electronic and mechanical subsystems.

Minor Fields:

Access To--

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Department of Transportation, L. Slough (202) 426-8602
- o U.S. Coast Guard, Lt. J. Doherty (202) 426-1666
- o U.S. Department of the Army, D. Davenport (301) 394-1310

Details of Professional Staff:

Name: Systems Engineering Division, Sr. Associate

Degree: M.S. Computer Science

Years Experience: 16

Fields: Computer systems engineering, ADP planning; System Acquisition support HW/SW Life Cycle Management techniques.

Name: Analytical Services Division, Senior Associate

Degree: B.S. Computer Science

Years Experience: 8

Fields: Software engineering for scientific applications (modeling, simulation and numerical analysis), information systems & systems programming.

Name: Information Sciences Division, Senior Associate

Degree: B.S.; MBA

Years Experience: 14

Fields: Data communications; Network planning and analysis
Telecommunication systems design and management.

Name: Information Science Division, Senior Associate

Degree: B.S., 1965

Years Experience: 26

Fields: Computer System design, development, and implementation
Configuration management. Software evaluation, requirements analysis; feasibility studies, project management.

TECHNICAL CLASSIFICATION AREAS



Chemical Engineering

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o E. I. DuPont
- o U.S. Department of Energy, R. Bruce Webster (412) 675-6245
(Morgantown Energy Technology Center; alcohol fuels division;
and Pittsburgh Energy Technology Center)

Details of Professional Staff:

Name: James H. Porter, President
Degree: Sc.D.
Years Experience: 25
Fields: Chemical Engineering.

Name: C. Michael Mohr
Degree: Sc.D.
Years Experience: 25
Fields: Chemical Engineering

Name: Ralph A. Horne
Degree: Ph.D. and J.D.
Years Experience: 25
Fields: Physical Chemistry; Marine Chemistry; Law.

Name: Avijet Ray, Manager Environmental Div.
Degree: M.S.
Years Experience: 9
Fields: Chemical Engineering; Nuclear Engineering.

Single-time Clients:

Notes:

- o Known for the development of new process concepts and for the application of computers for process design and simulation. Has made significant contribution in the fields of fluidization technology, membrane permeation systems; and computerized design and analysis of advanced power cycles. Expert in the design and operation of fluid bed combustors including design of staged fluid used retorting system, the design of fluidized bed steam boilers for oil field flooding, the design and construction of a four foot by nine foot fluid bed steam boiler and the design and testing of TGA facilities for limestone sulfur capture analysis. Extensive publications.
- o Senior Staff Scientist -- prepares environmental impact statements; toxic waste disposal methods; and solar technology expert. As a post-doctoral research associate and fellow, Department of Chemistry and Laboratory for Nuclear Science, MIT, completed fundamental research on radiochemistry and the physical-chemistry solvent extraction and ion exchange.
- o Contribution to research in area of solid waste management in which an in-situ waste containment technology was proposed so as to prevent the flow of leachates from abandoned toxic and hazardous waste sites. Proposed the concept of destruction of toxic chemicals in wastewater by the application of lasers. Also, in area of nuclear engineering, has extensive experience in the treatment of off-gases from nuclear power plants and in nuclear chemistry and radio-chemistry, in particular, the application of radioisotope tracers to physical chemistry and to industrial separation processes including ion exchange and solvent extraction technology.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 1 (see also 6, 30, 31)

Company Name: Energy and Environmental Engineering, Inc.

Address: 1B Monsignor O'Brien Highway
P.O. Box 215
E. Cambridge, MA 02141

Telephone: (617) 720-3800

Year Founded: October, 1979

8(a) Status: Certified

Principal Name: James H. Porter

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$850,000

Growth Pattern: 1981: 68% one-year growth rate
1982: 30%

No. Professional Staff: Full-time 9

Part-time 10

Capabilities and Experience of Firm:

Major Fields:

(1) Chemical Engineering..... 7

Minor Fields:

Facilities: On-Site--

o 2,000 square feet of office space.

o 300 square feet of experimental chemical laboratory space.

Access To--

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 1 (see also 3, 13)

Company Name: Technology Applications, Inc.

Address: 3 Skyline Place
5201 Leesburg Pike, Suite 1000
Falls Church, VA 22041

Telephone: (703) 931-2000

Year of Report: 1987

8(a) Status: Certified

Principal Name: James I. Chatman

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume Year Ending April 1984: \$11,000,000
Year Ending April 1983: \$ 5,000,000
Year Ending April 1982: \$ 950,000

Growth Pattern: Steadily increasing, expanding rapidly

No. Professional Staff: Full-time 238
Part-time 3
Consultants 10

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Chemical Engineering..... 3

Minor Fields:

Facilities: On-Site--

- o PDP 1144
- o 2 North Star Horizon micro-computers

Access To--

- o David G. Taylor Naval Ship Research and Development Center; Carderock, MD and Portsmouth, VA.
- o NASA - Langley Research Center; EPA - Athens, GA.
- o Hampton Roads Industrial Division; Norfolk, VA.
- o Numerous time-sharing vendors' hardware including IBM, UNIVAC, Honeywell and DEC mainframes with a wide variety of compilers, statistical packages and Data Base Management Systems Software.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o David Taylor Naval Ship Research & Development Center,
Ed O'Neal, Walter Zietfuss (202) 227-1853
- o Naval Station Systems Command, Ralph Yeatles (202) 692-2434(5)

Details of Professional Staff:

Name: Edward Graham

Degree: M.S. International Relations; B.S. Engineering

Years Experience: 30

Fields: Engineering; weapons systems requirements; naval, aerospace and aviation equipment development.

Name: Theodore J. Lutz

Degree: M.S. Systems Analysis; B.S. Electrical Engineering

Years Experience: 8

Fields: Electrical engineering; systems analysis; marine engineering.

Name: Alexander M. Lehrer

Degree: B.E.E. Electrical Engineering; Registered P.E. Mechanical Engineering and Naval Architecture

Years Experience: 44

Fields: Electrical engineering; mechanical engineering; naval engineering.

Name: Dr. Franklin G. Fisher, Jr.

Degree: Ph.D., Sociotechnical Systems; M.P.A.; M.S.S.M.; B.S.S.E.

Years Experience: 25

Fields: Systems engineering; public administration.

Name: Emil M. Szten

Degree: B.S. Civil Engineering, Mechanical Engineering, Naval Architecture; Registered P.E.

Years Experience: 43

Fields: Government and industry experience.

Single-time Clients:

Details of Professional Staff: (Continued)

NOTES:

o Personnel capable in:

- Aerospace Engineering
- Civil Engineering
- Electrical Engineering
- Mechanical Engineering
- Transportation Engineering
- Transportation Engineering
- Industrial Engineering
- Physics
- Chemistry

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 1 (see also 2, 6, 30)

Company Name: Wch Industries, Inc.

Address: 14 Felton Street
Waltham, MA 02154

Telephone: (617) 894-7022

Year Founded: 1978

8(a) Status: Certified

Principal Name: William Clark Harrison

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$320,000

Growth Pattern: 50% one-year rate of growth in 1982;
36% in 1983

No. Professional Staff: Full-time 20

Part-time 23

Capabilities and Experience of Firm:

Major Fields:

(1) Waste Management..... No. of Contracts:* 10

Minor Fields:

Repeat Clients:

o U.S. EPA**

Facilities: On-Site--

- o 8,000 square feet of office space.
- o A branch office in Washington, DC (500 square feet).
- o Conference room; library.
- o Fully equipped with electronic office equipment.
- o Drafting equipment.

Access To--

- o Computer terminal.

Single-time Clients

- o U.S. Army (Watertown, MA)**
- o Washington State University**
- o Whitman Plating Company**
- o Poole Silver Co.*
- o Holo-Krome Co.*
- o General Electric (Ashland, MA)*
- o Town of Shirley, MA**
- o Town of Brookfield, MA**

*Representative number of contracts.

**Professional staff experience.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Details of Professional Staff:

Name: John H. Baratta, Vice President/Chief Engineer

Degree: B.S. Civil Engineering; M.S. Work/Sanitary Engineering

Years Experience: 18

Fields: Directing and coordinating planning and design engineering; supervises professional design specialists (architecture, landscape architecture, HVAC, electrical and civil engineering; wastewater treatment, transportation engineering, utility systems, hazardous waste, ocean/harbor/coastal engineering, municipal engineering, water resources and urban design); designing wastewater/sewage/drainage facilities; evaluating pumping stations, and other treatment facilities; cost analysis and administering construction contracts

Name: Sushil K. Batra, Senior Mechanical Engineer

Degree: B.E. Electrical Engineering; S. H. Mechanical Engineering

Years Experience: 29

Fields: Power plant engineering (operation, maintenance and design); 15 years in a large industrial plant with cogeneration; developed and installed a preventive maintenance program and introduced check charts and maintenance schedules; directed wide range of energy related studies including several related to technology, economics and application of boiler systems including alternative fuels; originated the coal-oil mixture combustion demonstration at Salem Harbor Station and was directly involved in the preparation, design and development of the system.

Name: Bruce D. Norian, Senior Facility Engineer

Degree: Electrical Engineering and Aeronautical Engineering Courses

Years Experience: 21

Fields: HVAC analysis; energy use; energy optimization; general operations supervision.

Name: James H. Johnson, Senior Sanitary Engineer

Degree: M.S., Sanitary Engineering; Ph.D. Applied Science

Years Experience: 15

Fields: Chemical sludge and hazardous material disposal; industrial wastewater surveys; and design and study of wastewater treatment facilities.

Details of Professional Staff: (Continued)

Name: Sidney Levin, Senior Safety and Health Engineer

Degree: B.S. Physics; M.S. Work

Years Experience: 31

Fields: Safety and health engineer; radiological safety, hazardous waste management; environmental assessment, control and sampling; Nuclear Regulatory Commission Licensing. Recognized nationally for his knowledge and expertise in the safety aspects of depleted uranium processing.

Notes:

- o Additional Professional Staff Fields
 - Chemical Engineering (2)
 - Civil Engineering (2)
 - Mechanical Engineering (2)
 - Mathematics/Physics
 - Electrical Engineering (2)
 - Physics (2)
 - Sanitary Engineer
 - Work (2)
 - Data Processing Training Specialist
 - Administrative Management
 - Geophysics
 - Economics (2)
 - Theory and Administration
 - Urban and Environment Architect
 - Environmental Engineer (5)
 - Data Base Manager
 - Systems Engineer



Civil Engineering

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 2 (see also 13, 16, 29)

Company Name: AHS Inc.

Address: 8401 Corporate Drive, Suite 610
Landover, Maryland 20785

Telephone: (301) 459-9100

Principal Name: Carlton H. Joseph

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$400,000; Dollar Volume, 1983: \$2.0 million

Growth Pattern: 21% one-year increase in dollar volume in 1980; 9%
in 1981; no growth in 1982; and 80% increase in 1983.

Year Founded: April, 1977

No. Professional Staff: Full-time 30

8(a) Status: Certified

Part-time 6

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Civil Engineering.....7

Minor Fields:

No. of Contracts

(1) Electrical.....1

Repeat Clients:

- o Department of Transportation, J. Durham (202) 426-4022
- o Federal Highway Admin., H. Lum (703) 285-2021

Facilities: On-Site--

- o 3,500 square feet of office space.
- o Micro computers (Apple and DEC V100)

Access To--

- o IBM 370 Model 195 computer and working relationship
with several A.E. firms.
- o Many engineering computer programs covering many areas.
- o IBM 4300, PDP 11 VAX.

Single-time Clients:

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Details of Professional Staff:

Name: Carlton H. Joseph, President
Degree: M.S., Engineering Administration
Years Experience: 10
Fields: Computer Science

Notes:

- o Completed all graduate course requirements for a M.S. in computer science. Has for six years been intimately involved in the development and implementation of Information Systems. Responsible for the development and implementation of the Management Information System for the Washington METRO Subway System and WMTA. Was principal project planner for the 906 MW Davis Besse Nuclear unit. Responsible for the design, development and implementation of the start-up testing network-based information system; also, start-up engineering planner for the 8567 MW Millstone Nuclear unit and was computer support analyst for two other units. In this capacity has conducted many environmental studies and has engaged in research projects pertaining to environmental matters. Also assisted in the development of a cost/schedule network based information integrated system for the Potomac generating station.

Name: Mohammed R. Shah, P.E.
Degree: B.S. Civil Engineering; M.S. Structural Engineering
Years Experience: 17
Fields: Civil Engineering; Structural Engineering

Notes:

- o Was responsible for the design and cost evaluation of gravity and reinforced concrete dams. Supervised construction of industrial and commercial buildings, designed reinforced concrete bridges and elevated water tanks and prepared monthly progress reports. Was responsible for design and analysis of some parts of the reactor building for Eastern Nuclear Unit and Brunswick Nuclear Unit. Designed some parts of the drywell and towers, and wrote design criteria for the reactor building with special emphasis on AEC requirements and latest codes. Group leader on PWR Davis Besse Nuclear Units 2 and 3 responsible for "Balance of Plant." Supervised work of ten engineers; geotechnical and environmental reports and wrote specifications for the Safety Analysis Report.

Name: Jack H. Kemeny
Degree: B.Sc. Management Systems & Personnel; B.S. Aerospace Eng.
Years Experience: 18
Fields: Cost Engineer

Notes:

- o Aerospace Engineering subfields -- fluid dynamics and aircraft structural & propulsion design. As cost/schedule supervisor, was responsible for supervision of cost and schedule for a number of nuclear power plant projects. Served as cost/schedule Supervisor on the 900 MW Davis Besse Nuclear Plant construction and on a previous 2-unit fossil and 1-unit nuclear power project.

Name: Bing Nan Feng
Degree: B.S., Civil Engineering; M.S. Structural Engineering
Years Experience: 17
Fields: Structural Engineering

Notes:

- o Responsible for structural design and analysis of concrete and steel structures for commercial, industrial and office and apartment buildings, bridges, and highways. As senior engineer, was responsible for design and analysis of structures for a laboratory, nuclear fuel process plant and a fossil fueled power plant. Responsible for design and analysis of structures with special emphasis on loadings.

Notes:

- o In addition to details above, staff also includes:
 - Electrical Engineer
 - Industrial Engineer
 - Nuclear Engineer
 - Civil Engineers (2)
 - Environmental System Engineer
 - Economist

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 2 (see also 3, 11, 28)

Company Name: Avila Associates Inc.

Address: 6650 N. Northwest Highway, Suite 202
Chicago, Illinois 60631

Telephone: (312) 763-6570

Year Founded: 1975

8(a) Status: Certified

Principal Name: Manual Frank Avila

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$130,000

Growth Pattern: After a period of minimal change, since 1979,
there was a 31% one-year increase in dollar
volume in 1982.

No. Professional Staff: Full-time 5

Part-time

Capabilities and Experience of Firm:

Major Fields:

(1) Civil Engineering.....17

Minor Fields:

No. of Contracts:

Facilities: On-Site--

- o 400 square feet storage area for equipment.
- o 400 square feet for office area.
- o Atari 800 48K (use computers for civil, structural and electrical designs).

Access To--

- o Another firm's IBM 370 on contractual basis.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Illinois Department of Transportation
- o CRS Group Engineers, Inc., A. E. Bredit (312) 297-0400
- o Homer L. Chastion & Associates, W. A. Frick (217) 422-8544
- o Illinois Institute of Technology, L. E. Rolter (312) 567-4707

Details of Professional Staff:

Name: Manuel Frank Avila, P.E.
Degree: B.S.; M.S.
Years Experience: 15
Fields: Civil Engineering; Finance

Name: Robert O. Wesnick
Degree: B.S.
Years Experience: 23
Fields: Civil Engineering

Name: Alfred Bustamonte
Degree: B.S.
Years Experience: 15
Fields: Mechanical Engineering

Name: Francisco Brana 'Nulero
Degree: Ph.D.
Years Experience:
Fields: Chemical Engineer; Operations Research & Energy Management

Single-time Clients:

- o Chicago Board of Education
- o Municipal Paving Company
- o S. G. Hayes & Company
- o Illinois Bell Telephone Co.
- o The Metropolitan Sanitary District of Greater Chicago (subcontract)
- o Department of Public Works (Chicago), H. Ecale (312) 744-3591
- o The Peoples Gas, Light & Coke Company, R. J. Dettlefsen (312) 431-4710
- o U.S. Department of the Interior, E. Eng (219) 926-7561

Notes:

- o Has designed, completed analysis and review of safety related nuclear power pipe supports, etc. Extensive background in FORTRAN which has been used in design projects.
- o Expertise in piping systems design, pressure vessel design, ventilating, air conditioning and machine design.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 2 (see also 6, 7, 29)

Company Name: Bryant Associates

Address: 1420 N Street NW, Suite 100
Washington, D.C. 20005

Telephone: (202) 232-5192 or 519.

Principal Name: Andrew D. Bryant

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$892,000

Growth Pattern: 59% one-year increase in dollar volume in 1981 and 54% in 1982.

Year Founded: 1959

No. Professional Staff: Full-time 16

8(a) Status: Certified

Part-time 4

Capabilities and Experience of Firm:

Facilities: On-Site--

Major Fields:

No. of Contracts:

(1) Civil Engineering..... 3

- o Principal office 2,000 square feet.
- o Branch office in Berkeley, California.

Minor Fields:

(1) Waste Management..... 5
(2) Water Chemistry..... 5
(3) Hydrology..... *

Access To--

- o Main frame computer.

*Based on professional staff's experiences and fields

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

Single-time Clients:

- o Central Avenue Shopping Center, J. Horning (202) 659-0700
- o Bayonne Waste Water Treatment Plant, C. C. Johnson (202) 942-5600
- o Coney Island Waste Water Treatment Plant, C. C. Johnson (202) 942-5600

Details of Professional Staff:

Name: Andrew D. Bryant, President
Degree: B.A., Architecture
Years Experience: 25
Fields: Architecture

Name: Daniel D. Kim, Vice President
Degree: M.A., Architecture
Years Experience: 16
Fields: Architecture

Name: Galen A. Leek, Vice President
Degree: B.S., Civil Engineering
Years Experience: 30
Fields: Civil Engineering; operations research

Name: Jerry Y. Fujimoto
Degree: B.A., Architecture
Years Experience: 15
Fields: Architecture

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 2 (see also 6, 8, 28)

Company Name: Delon Hampton & Associates

Address: 2000 K Street, NW, Suite 300
Washington, DC 20001

Telephone: (202) 293-3666

Year founded: 1973

8(a) Status: Certified

Principal Name: Delon Hampton

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1983: \$3.4 million

Growth Pattern: 6% avg. increase since 1979

No. Professional Staff: Full-time 80

Part-time -

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Civil Engineering..... 70

Minor Fields:

Facilities: On-Site--

- o Offices in Atlanta, Georgia; Chicago, Illinois; Los Angeles, Calif; and Rockville, Maryland (Corporate Headquarters): 15,800 square feet.
- o Computer (Digital PD 11) and Word Processor Equipment

Access To--

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Other Clients:

Single-time Clients:

- o Dade County Rapid Transit Authority
- o Department of Environment and Streets, Bureau of Pollution Control
- o Interstate Division of Baltimore City, Maryland
- o Prudential Insurance Company
- o U.S. Army Corps of Engineers
- o General Services Administration

Details of Professional Staff:

Notes:

Name: Delon Hampton, President
Degree: Ph.D., Civil Engineering
Years Experience: 23
Fields: Geotechnical Engineering.

- o Extensive publications and experience in civil and geotechnical engineering; Registered Professional Engineer in 14 states.

Name: R. Varadarajan (Rajan), Vice President
Degree: Ph.D., Structural Engineering
Years Experience: 22
Fields: Structural Engineering.

- o Registered Professional Engineer.

Name: John M. Zimmer
Degree: BCE., Civil Engineering
Years Experience: 19
Fields: Civil Engineering and Transportation

- o Registered Professional Engineer in 10 states.

Name: M. G. Menon
Degree: M.S. C.E.
Years Experience: 10
Fields: Structural Engineering

- o Registered Professional Engineer in 2 states.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 2 (see also 6, 11)

Company Name: Enviroscience, Inc.

Address: 2021 East Hennepin Avenue
Minneapolis, MN 55413

Telephone: (612) 379-7262

Year Founded: September, 1979

8(a) Status: Certified

Principal Name: K. Dennis Kim

Title: President

Average Gross Receipts (3 yrs):
Dollar Volume, 1982: \$275,000
1981: \$180,000
1980: \$ 56,000

No. Professional Staff: Full-time 11

Part-time -

Capabilities and Experience of Firm:

Major Fields:

(1) Civil Engineering..... 11

Minor Fields:

(1) Waste Management..... 5
(2) Geotechnical Engineering..... 3
(3) Structural Engineering..... 9

Facilities: On-Site--

o Data retrieval and word processing capabilities.

Access To--

o University of Minnesota Computer Center.
o Use of CRAY 1A; CDC CYBER; DEC-VAX; Xerox 9700 computers for Water Resources Engineering.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o U.S. Army Corps of Engineers, Kent Penderson (612) 725-5904
- o Barr Engineering Co. - I. E.
- o Howard R. Green Company, Herbert C. Berry (319) 395-7805

Single-time Clients:

- o Nebraska Water Resource Center - I.E.

Details of Professional Staff:

Name: Isaac Yomtovian, P.E.

Degree: M.S., Water Resources/Civil Engineering; Ph.D. Coursework
Waste Management/Agricultural Engineering

Years Experience: 12+

Fields: Water resources; hydrology; hydraulic; computer models.

Name: K. Dennis Kim, P.E.

Degree: M.S., Fluid Mechanics; Ph.D., Hydraulics/Water Resources

Years Experience: 10+

Fields: Hydraulic and hydrologic models; water resources; computer models.

Name: Ruben F. Yomtovian

Degree: M.S., Computer Science; Graduate Work, Management
Information System

Years Experience: 15+

Fields: Computer Science; systems analyst; microprogrammer; field service engineering.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 2 (See also 11, 30)

Company Name: Geo-Technical Services, Inc.

Address: 851 South 19th Street
Harrisburg, PA 17104

Telephone: (717) 236-3007

Year Founded: 1959

8(a) Status: Certified

Principal Name: James Diaz, REG

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$200,000-\$500,000

Growth Pattern: Fees in same range for past 5 years.

No. Professional Staff: Full-time 28

Part-time

Capabilities and Experience of Firm:

Major Fields:

Planning and costing for all of the following:

No. of Contracts:

- | | |
|---|---|
| (1) Storm water management..... | 4 |
| (2) Flood control and stream improvement..... | 5 |
| (3) Hydraulic structures..... | 4 |
| (4) Investigation of effects of construction,
erosion and earthmoving..... | 5 |

Minor Fields:

Facilities: On-Site--

- o Laboratory.
- o Computer room.
- o Engineering and drafting facilities.
- o Surveying and mapping equipment.
- o Field sampling and recording devices.

Access To--

- o Control Data Corporation Time-Sharing.
- o Boeing Computer Services Time-Sharing.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Pennsylvania Department of Environmental Resources,
N. Batcheler (717) 787-7668
- o Pennsylvania Department of General Services, R.A. Dietrich
(717) 787-5337
- o Chester County Water Resources Authority, D.C. Yaeck (215) 692-7878

Details of Professional Staff:

Name: James Diaz, REG
Degree: B.S., Geology
Years Experience: 30
Fields: Administrative management, engineering geology, environmental geology, geotechnical investigation, hydrologic investigation, land use planning, structural foundation design.

Name: Gideon Yachin, P.E.
Degree: M.S., Civil Engineering
Years Experience: 27
Fields: Feasibility studies and economic analysis, hydrologic inventories, hydraulics, waste treatment and drainage studies, storm water management, soils engineering.

Name: Frank H. Pearson
Degree: M.S., Water Resources; Ph.D., Civil Engineering
Years Experience: 9
Fields: Laboratory management, acid mine drainage, computer modeling, laboratory-scale and pilot-scale treatment plants, sanitary engineering, pollution control.

Name: Thomas A. Graupensperger
Degree: B.S., Environmental Resources Management
Years Experience: 6
Fields: Design, construction and operation of surface and groundwater stations, statistical analysis and computer programming, energy conservation surveys.

Single-time Clients:

- o Middletown East End Warehouse Co.
- o Court Field Spring Housing Project
- o Federal Emergency Management Agency

Notes:

The 28 professionals are divided as follows:

Administration.....	1
Architecture.....	1
Civil-Engineering.....	4
Construction Inspection.....	1
Drafting.....	5
Ecology.....	1
Economics.....	1
Electrical Engineering.....	1
Geology.....	2
Hydrology.....	2
Interior Design.....	1
Landscape Architecture.....	1
Sanitary Engineering.....	1
Soils Engineering.....	2
Structural Engineering.....	1
Surveys.....	3

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 2 (see also 6, 13, 28)

Company Name: John E. Foster and Associates, Inc.

Address: 1134 Corrugated Way
Columbus, Ohio 43201

Telephone: (614) 294-5234

Year Founded: March, 1979

8(a) Status: Certified

Principal Name: John E. Foster, P.E.

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$523,154

Growth Pattern: 71% one-year increase in dollar volume in 1981; 40%
in 1982 and 18% in 1983.

No. Professional Staff: Full-time 23

Part-time 8

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Civil Engineering.....	8
(2) Environmental Impacts.....	8
(3) Mechanical Engineering.....	7
(4) Structural Engineering.....	14
(5) Traffic Engineering.....	4

Minor Fields:

(1) Hydrology.....	2
(2) Wastewater Management.....	18
(3) Energy Conservation/Management.....	5
(4) Water Systems Engineering.....	6

Facilities: On-Site--

- o 2,850 square feet of office space in Columbus, Ohio
- o Conference room, library, xerox room, drafting room, engineering design area, environmental planning area, marketing area and administrative area.
- o 2080 square feet of office space in Cleveland, Ohio.
- o Conference room, xerox room, drafting room, engineering design area and administrative area.

Access To--

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Ohio Department of Natural Resources, J. Swartzmiller (614) 265-6948
- o Ohio Department of Transportation
- o City of Columbus, Department of Public Service
- o City of Cleveland, Department of Public Service
- o Cleveland Bridge Improvements, R. Barrish (216) 664-3346
- o U.S. Army Corps of Engineer, Louisville District
- o Franklin County Engineer, J. Circle (614) 462-3030
- o Southerly Wastewater Treatment Plant, Columbus Ohio
- o Jackson Park Sewer Water Treatment Plant, Columbus, Ohio
- o Community Services Administration

Details of Professional Staff:

Name: John E. Foster, P.E.

Degree: Bachelor of Civil Engineering

Years Experience: 27

Fields: Civil Engineering; Structural Engineering; Environmental Engineering

Name: Harry W. Roberts, P.E.

Degree: Bachelor of Civil Engineering

Years Experience: 21

Fields: Civil Engineering; Structural Engineering; Transportation Engineering.

Name: Albert S. Trefts, P.E.

Degree: Bachelor of Mechanical Engineering

Years Experience: 30

Fields: Mechanical Engineering; Process Systems; Systems Engineering

Single-time Clients:

- o Ohio Department of Energy
- o U.S. Department of Interior, National Park Service
- o City of Youngstown, Ohio
- o The Ohio State University
- o City of Bexley, Ohio
- o Central Ohio Transit Authority
- o Cleveland Public Square Improvements
- o Pike Housing Authority, Weatherby (614) 221-8487
- o Scioto Village Phase II, Weatherby (614) 221-8487
- o Timber Ridge Apartments, Weatherby (614) 221-8487
- o Upper Hill Creek Wastewater Facilities, R. Tibbet (614) 451-2050
- o Blacklick Interceptor Facilities, (614) 888-4953
- o Long Term Solids Handling Facilities, (614) 888-4953
- o Union City Wastewater Treatment Plant
- o Sanitary Sewer Relocation, Monsanto Research Corporation

Notes:

- o Has the capability and credentials, based on accumulated professional, technical and academic accomplishments, to provide a wide range of civil, sanitary, municipal and architectural-engineering services. The scope of services includes investigations, identification of appropriate technologies, report preparation, detail, project design, construction supervision and operational analysis. Professional engineer in Ohio, Michigan and Pennsylvania.
- o Serves as Chief Engineer for the firm. Responsibilities include administration, management and control of production operations, recruitment and marketing activities in the Cleveland area. As Chief Engineer responsible for design, review, quality control and coordination of design activities. Professional Engineer in 3 states.
- o Serves as Chief Mechanical Engineer for the firm. Responsibilities include design, review, production operations and supervision of mechanical engineering design. Extensive experience in oil refining, chemical and synthetic fuels industries.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 2 (see also 6, 8)

Company Name: Meiji Resource Consultants

Address: 940 North 400 East
P.O. Box 267
North Salt Lake, Utah 84054

Telephone: (801) 298-2401

Year Founded: 1977

8(a) Status: Certified

Principal Name: Tom N. Hori

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, \$850,000 annually

Growth Pattern: Leveled off after early peak;
holding steady last two years.

No. Professional Staff: Full-time 9

Part-time 6

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Civil Engineering..... 4

Minor Fields:

(1) Recreational Facilities Design/
Feasibility Studies..... 4

Facilities: On-Site--

- o Data General Eclipse S/250 computer, 512 K byte memory;
190 megabyte disk, 800/1600 BPI 9 track tape drive; digital
plotter, line printer, 4 Tektronix graphics terminals with
high resolution digitizing tablets.
- o Drafting services; typing; related editing.

Access To--

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

Single-time Clients:

o National Park Services, R. Laubenhier (303) 234-4308

Details of Professional Staff:

Name: Tom N. Hori, President

Degrees: Business Management Graduate

Years Experience: 13

Fields: Marketing; Administration; Finance.

Name: Richard C. Fox, Senior Manager

Degrees: B.S., Geology; M.S., Geophysics

Years Experience: 16+

Fields: Geology; geophysics; application of geophysical techniques in exploration programs.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 2 (see also 6, 28)

Company Name: Paul Parks and Associates, Inc.

Address: 100 Boylston Street, Suite 815
Boston, MA 02116

Telephone: (617) 415-3688

Year Founded: 1979

8(a) Status: Certified

Principal Name: Paul Parks

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$100,000 to \$250,000
1981: \$100,000 to \$350,000
1980: \$100,000

No. Professional Staff: Full-time 16

Part-time

Capabilities and Experience of Firm:

Major Fields:

(1) Civil Engineering..... 2

Minor Fields:

(1) Nuclear Engineering Research *
(in area of aeronautical engineering)

Facilities: On-Site--

o Parent company located in Boston, Massachusetts; branch offices at 1518 Whittier St., N.W., Washington, D.C. 20012.

Access To--

*Based on corporate and staff experience.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Boston Water & Sewer Commission, F. Gens (617) 426-6046
- o Transportation Systems Center, Department of Transportation, R. Raab (617) 494-2072
- o Army Corps of Engineers, Waltham, MA

Details of Professional Staff:

Name: Paul Parks

Degree: Professional Engineer

Years Experience: 25+

Fields: Engineering; education; community development.

Name: John O'S. Francis

Degree: MBA, Ph.D. (in process) Management, Statistics

Years Experience: 25+

Fields: Analytical statistics; health care administration; management science; economic and statistical quality control; cost-benefit analysis.

Single-time Clients:

- o BOSCOM-FMR Properties, R. Taylor (617) 292-6034
- o Stone and Webster

Notes:

Selected List of Corporate and Staff Experiences.

- o Structural and Civil Engineering
 - worked on design of hydroelectric systems
 - design and development of power plants
 - design of drainage systems (Air Base runways)
 - design of major buildings
 - developed cost estimates of a variety of projects
 - reviewed and coordinated structural engineering concepts in connection with building rehabilitation
 - planned and implemented case studies about water intrusion in tunnels for urban mass transit
 - analyzed destructive vibration on several buildings due to pile driving operations and on sun screens
 - designed and supervised construction of sprinkler system in compliance with existing codes and regulations
- o Aeronautical Engineering
 - Senior Design Engineer on the development and design of the F8U Crusader
 - worked on the design and development of the Regulus Missile (a submarine based missile)
 - worked on the design of large jet engines including the J57 and J75 (all magnesium alloy engine)
 - worked with a team of seven engineers in Nuclear Engineering research attempting to develop a nuclear jet engine.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 2 (see also 6, 11, 29)

Company Name: Urbitran Associates, Inc.

Address: 15 Park Row
New York, N.Y. 10038

Telephone: (212) 267-6310

Year Founded: 1970

8(a) Status: Certified

Principal Name: Robert B. Lee

Title: President

Average Gross Receipts (3 yrs):

Growth Pattern: 60% one-year rate of growth in 1980;
25% in 1981, and 23% in 1982.

No. Professional Staff: Full-time 94

Part-time 20

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:*

(1) Civil Engineering..... 13

Minor Fields:

No. of Contracts:*

(1) Construction Inspection..... 6

Clients:**

- o New York City Department of Transportation, Sam Shorts (212) 830-7500
- o New York City Department of City Planning, Richard Todd (202) 566-8505
- o City of Newark, N.J., Fernando Rubio (201) 733-8425
- o New Jersey Department of Transportation, Ross Stevenson (609) 292-6302
- o South West Regional Planning Agency (SWRPA), Conn., Richard Carpenter (203) 866-5543
- o Federal Highway Administration, John Fegean (202) 426-9710
- o Urban Mass Transportation Administration, Richard Steinman (202) 426-4004

*Partial number of contracts

**Partial list of Clients; and information on whether repeat or single-time clients not available.

Facilities: On-Site--

- o Regional offices in Washington, DC; Stamford, CT; Los Angeles, CA; Seoul, Korea; San Francisco, CA.
- o Headquarters has about 7,000 square feet of office space.
- o Two micro-computers.

Access To--

- o Mainframe computer.

Clients:** (Continued)

- o New York State Department of Transportation, John Marino (212) 938-3309
- o Connecticut Department of Transportation, Jim Byrnes (203) 566-4272
- o World Bank
- o Government of Korea
- o City of Caguas, Puerto Rico
- o St. Croix, U.S. Virgin Islands
- o Plateau State, Nigeria

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Clients:**

- o Department of Housing and Urban Development
- o Federal Emergency Management Agency
- o U.S. Army Corps of Engineers
- o New Jersey Transit Corporation

Details of Professional Staff:

Name: Robert B. Lee, President
Degree: Ph.D., Civil Engineering

Years Experience: 20

Fields: Traffic, transportation, environment.

Name: Nicholas Bellizzi, P.E.

Degree: M.A., Civil Engineering

Years Experience: 10

Fields: Highways.

Name: Paul J. Menaker

Degree: Ph.D., System Engineering

Years Experience: 10

Fields: Transit and Transportation; Environmental Systems.

Name: Tim Miller

Degree: B.S., Environmental Planning

Years Experience: 8

Fields: Environmental Services.

Name: Michael Reviv, P.E.

Degree: B.S., Civil Engineering

Years Experience: 10

Fields: Structural Engineering.

Notes

- o Orbitran has worked with some of the nation's leading consulting firms and A-E organizations, providing specialized professional services under various contractual arrangements.

**Partial list of Clients; and information on whether repeat or single-time clients not available.

Clients:** (Continued)

- o New York State Metropolitan Transportation Authority
- o New York State Department of Correctional Services
- o New York City Transit Authority
- o County of Essex, New Jersey
- o County of Middlesex, New Jersey
- o City of Buffalo, New York
- o City of Rochester, New York
- o City of Detroit, Michigan
- o North Hempstead Planning Department
- o Norwalk Transit District
- o City of Stamford, Connecticut
- o Port Authority of New York and New Jersey
- o Tri-State Regional Planning Commission
- o Housatonic Valley Council of Elected Officials (HVCEO) Conn.
- o Southeast Michigan Transportation Authority (SENTA)
- o Niagara Frontier Transportation Authority
- o New York Convention Center Development Corporation
- o New York State Urban Development Corporation
- o New York City Public Development Corporation
- o Mobil Oil Corporation
- o Consolidated Edison Corporation
- o Brooklyn Union Gas Company
- o BA Capital Corporation
- o Academy of Aeronautics, LaGuardia Airport
- o Chasanoff Organization
- o Equitable Life Assurance Company
- o Lieberman Properties
- o Rouse Corporation
- o Fulton Fish Market Cooperative Corporation
- o Flushing Mall Associates
- o Numerous Citizens' Groups, Attorneys and A-E Firms

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 2 (see also 1, 6, 30)

Company Name: Wch Industries, Inc.

Address: 14 Felton Street
Waltham, MA 02154

Telephone: (617) 894-7022

Year Founded: 1978

8(a) Status: Certified

Principal Name: William Clark Harrison

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$320,000

Growth Pattern: 50% one-year rate of growth in 1982;
36% in 1983

No. Professional Staff: Full-time 20

Part-time 23

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:*

(1) Civil Engineering..... 10

Minor Fields:

Repeat Clients:

o City of Peabody, MA**

Facilities: On-Site--

- o 8,000 square feet of office space.
- o A branch office in Washington, DC (500 square feet).
- o Conference room; library.
- o Fully equipped with electronic office equipment.
- o Drafting equipment.

Access To--

- o Computer terminal.

Single-time Clients

- o U.S. Air Force, Loring, AFB, ME - start up stage
- o U.S. Army Corps of Engineers, New England Division**
- o Bedford VA Hospital, Bedford (MA), Nick Rago (617) 275-7500
- o City of Fall River, MA (via C. E. Maguire), Anthony Prata (617) 890-0100
- o Boston Redevelopment Authority (via C. E. Maguire), Art Landers (617) 890-0100
- o EPA Region I**
- o City of Saco, MA**
- o DPW Commonwealth of MA
- o City of Rochester, NH**

*Representative number of contracts.

**Professional staff experience.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Details of Professional Staff:

Name: John H. Baratta, Vice President/Chief Engineer
Degree: B.S. Civil Engineering; M.S. Work/Sanitary Engineering
Years Experience: 18

Fields: Directing and coordinating planning and design engineering; supervises professional design specialists (architecture, landscape architecture, HVAC, electrical and civil engineering; wastewater treatment, transportation engineering, utility systems, hazardous waste, ocean/harbor/coastal engineering, municipal engineering, water resources and urban design); designing wastewater/sewage/drainage facilities; evaluating pumping stations, and other treatment facilities; cost analysis and administering construction contracts

Name: Sushil K. Batra, Senior Mechanical Engineer
Degree: B.E. Electrical Engineering; S. M. Mechanical Engineering
Years Experience: 29

Fields: Power plant engineering (operation, maintenance and design); 15 years in a large industrial plant with cogeneration; developed and installed a preventive maintenance program and introduced check charts and maintenance schedules; directed wide range of energy related studies including several related to technology, economics and application of boiler systems including alternative fuels; originated the coal-oil mixture combustion demonstration at Salem Harbor Station and was directly involved in the preparation, design and development of the system.

Name: Charles Levy, Project Manager
Degree: B.S. & M.S. Chemical Engineering
Years Experience: 31

Fields: Chemical Engineer and Hazardous Waste specialist; expert in electroplating and heavy metal sludge disposal.

Name: James H. Johnson, Senior Sanitary Engineer
Degree: M.S., Sanitary Engineering; Ph.D. Applied Science
Years Experience: 15

Fields: Chemical sludge and hazardous material disposal; industrial wastewater surveys; and design and study of wastewater treatment facilities.

Details of Professional Staff:

Name: Sidney Levin, Senior Safety and Health Engineer
Degree: B.S. Physics; M.S. Work
Years Experience: 31

Fields: Safety and health engineer; radiological safety, hazardous waste management; environmental assessment, control and sampling; Nuclear Regulatory Commission Licensing. Recognized nationally for his knowledge and expertise in the safety aspects of depleted uranium processing.

Notes:

- o Additional Professional Staff Fields
 - Chemical Engineering (2)
 - Civil Engineering (2)
 - Mechanical Engineering (2)
 - Mathematics/Physics
 - Electrical Engineering (2)
 - Physics (2)
 - Sanitary Engineer
 - Work (2)
 - Data Processing Training Specialist
 - Administrative Management
 - Geophysics
 - Economics
 - Theory and Administration
 - Urban and Environment Architect
 - Environmental Engineer (5)
 - Data Base Manager (5)
 - Systems Engineer

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 2 (see also 3, 13, 31)

Company Name: Wilson & Associates, Inc.

Address: 4439 Reading Road
Cincinnati, Ohio 45229

Telephone: (513) 641-2006

Year Founded: 1971

8(a) Status: Certified

Principal Name: Henry Wilson, Jr., P.E.

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$100,000-\$250,000 in fees for direct Federal work; \$500,000-\$1 Million for all other domestic work.

Growth Pattern: Steady

No. Professional Staff: Full-time 31; 2 professional support

Capabilities and Experience of Firm:

Major Fields: No. of Contracts:

(1) Building design and construction..... 116
(2) Building rehabilitation..... 45

Minor Fields:

(1) Structural design, construction..... 46
(2) Rehabilitation of structures..... 45

Facilities: On-Site--

o Three fully operational word processing systems; currently investigating the CADD System and an engineering system for analysis and design.

Access To--

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o University of Cincinnati, John J. Reese (513) 475-6161
- o City of Cincinnati, Steve Bloomfield (513) 352-3471
- o Cincinnati Public Schools, C. W. Carroll (513) 369-4024
- o Cincinnati Metropolitan Housing Authority, Henry Stefanik (513) 721-4580
- o Cincinnati Job Corps Center, Howard Stallworth (513) 651-2000

Single-time Clients:

- o Ohio Department of Transportation, Donald Huhman (614) 773-2691
- o Ohio Historical Society, John Flemming (614) 466-1500
- o Nevele, Inc., Pauline Strayhorne (513) 221-7700
- o Blue Ridge Realty, William T. Earls (513) 621-6000
- o City of Covington, KY, Terry Hughes (502) 292-2291

Details of Professional Staff:

Name: Henry Wilson, Jr., P.E.

Degree: A.S., Engineering

Years Experience: over 24 years

Fields: Civil, structural, electrical, and mechanical engineering design and construction administration experience.

Name: Hosea Frazier, P.E.

Degree: B.S. Architecture; M.S. Candidate (Structural Engineering)

Years Experience: over 16 years

Fields: Structural engineering, project management; structural design in reinforced concrete, steel and timber.

Name: Richard H. Mellot, A.I.A.

Degree: B.S., Architecture

Years Experience: over 10 years

Fields: Design, supervision; Project Architect for numerous Commercial and institutional buildings.



Electrical Engineering

MINNESOTA REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 3 (see also 2, 11, 28)

Company Name: Avil Associates Inc.

Address: 5650 N. Northwest Highway, Suite 202
Chicago, Illinois 60631

Telephone: (312) 763-6570

Year Founded: 1975

8(a) Status: Certified

Principal Name: Manuel Frank Avila

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$130,000

Growth Pattern: After a period of minimal change, since 1979, there was a 31% one-year increase in dollar volume in 1982.

No. Professional Staff: Full-time 5

Part-time

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

() Electrical Engineering 2

Facilities: On-Site--

- o 400 square feet storage area for equipment.
- o 400 square feet for office area.
- o Atari 800 48K (use computers for civil, structural and electrical designs).

Access To--

- o Another firm's IBM 370 on contractual basis.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o CRS Group Engineers, Inc., A. E. Bredit (312) 297-0400
- o Homer L. Chastion & Associates, W. A. Frick (217) 422-8544
- o Illinois Institute of Technology, L. E. Rolter (312) 567-4707

Details of Professional Staff:

Name: Manuel Frank Avila, P.E.
Degree: B.S.; M.S.
Years Experience: 15
Fields: Civil Engineering; Finance

Name: Robert O. Wesnick
Degree: B.S.
Years Experience: 23
Fields: Civil Engineering

Name: Alfred Bustamonte
Degree: B.S.
Years Experience: 15
Fields: Mechanical Engineering

Name: Francisco Brana 'Nulero
Degree: Ph.D.
Years Experience:
Fields: Chemical Engineer; Operations Research & Energy Management

Single-time Clients:

- o Illinois Bell Telephone Co.
- o Department of Public Works (Chicago), H. Ecale (312) 744-3591

Notes:

- o Has designed, completed analysis and review of safety related nuclear power pipe supports, etc. Extensive background in FORTRAN which has been used in design projects.
- o Expertise in piping systems design, pressure vessel design, ventilating, air conditioning and machine design.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 3 (see also 7, 13)

Company Name: Energy Systems Engineering, Inc.

Add. ss: 10605 Concord Street
Kensington, Maryland 20795

Telephone: (301) 946-6160

Year Founded: January, 1979

8(a) Status: Certified

Principal Name: Jose A. Reig

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$415,000

Growth Pattern: 82% one-year increase in dollar volume in 1981 and
31% in 1982

No. Professional Staff: Full-time 9

Part-time None

Capabilities and Experience of Firm:

Facilities: On-Site--

Major Fields:

No. of Contracts:

o 1800 square feet.

o Radio Shack TRS-80 computer and energy analysis software

(1) Electrical Engineering..... 30

Minor Fields:

(1) Nuclear Engineering..... *

*Based on professional staff's experiences and fields.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o U.S. Navy Facility Engineering Command (Chesapeake Div.),
R. de la Vega (202) 433-4374
- o U.S. Department of the Army (Baltimore District),
F. Timbol (202) 576-3259
- o General Services Administration,
V. Baconov (202) 472-4580

Details of Professional Staff:

Name: Jose A. Reig

Degree: B.S.

Years Experience: 17

Fields: Nuclear Engineering, Mechanical Engineering

Name: Guillermo J. Ramsay

Degree: B.S.

Years Experience: 18

Fields: Electrical Engineer

Name: Hdayan Kham

Degree: B.S.

Years Experience: 15

Fields: Electrical Engineer

Single-time Clients:

- o U.S. Navy Facility Engineering Command (Atlantic Division),
G. Hedley (804) 444-9665
- o Department of Justice, H. DeVoe (202) 324-3036
- o Department of Commerce, A. White (301) 921-3825
- o Public Health Service
- o Department of Transportation (U.S. Coast Guard),
T. Clifford (202) 426-1247
- o Architect of the Capital, G. Lukar (202) 225-3350

Notes:

- o Have done testing and design of nuclear reactor fuel assembly
for pressurized water reactors (Babcock and Wilcox)

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 3 (see also 4, 8)

Company Name: Infotec Development Incorporated
Address: 3505 Cadillac Avenue, Bldg. M
Costa Mesa, CA 92626

Telephone: (714) 241-8254

Year Founded: September, 1978

8(a) Status: Certified

Principal Name: J. Fernando Niebla
Title: President

Average Gross Receipts (3 yrs):
Dollar Volume, 1983: \$6 Million
Growth Pattern: 77% one-year increase
in dollar volume in
1981; 50% increase in
1983

No. Professional Staff: Full-time 102
Part-time 10

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

- | | |
|---|----------|
| (1) Electrical Engineering..... | Numerous |
| - Satellite Operations | |
| - Communications Command | |
| (2) Electronics Engineering..... | Numerous |
| - Computer Systems Engineering | |
| (3) Geology/Geotechnical Engineering..... | Numerous |
| - Earth Sciences | |
| - Archaeology | |
| - Cartography | |

Facilities: On-Site--

- o Headquarters consisting of 12,500 square feet of office space, including digital photography, computer and cartography laboratories.
- o TOP SECRET cleared.
- o Field operation offices for the Systems Division located in Sunnyvale, CA (2,000 sq. ft.); Salt Lake City, UT (6,000 sq. ft); Colorado Springs, CO (1,000 sq. ft); Portland, OR (4,000 sq. ft); Washington, D.C. (500 sq. ft.)
- o A field office for the Earth Sciences Divisions located in Sonora, CA (6,000 sq. ft.)
- o VAX 11-780, VAX 11-750, PDP 11-23, HP-3000, two HP-1000's, IBM System 36, thirteen Televideo microprocessors, one Zenith 2400 microprocessors, three Kaypro microprocessors.

Repeat Clients:

- o U.S. Geological Survey
- o National Oceanic & Atmospheric Administration,
H. McClure (301) 763-8064
- o U.S. Navy
- o IBM (Gaithersburg, MD), Mark O'Hara (301) 840-6962
- o U.S. Air Force Satellite Control Center
- o U.S. Air Force (Hill Air Force Base, AFLC),
Bill Bankhead (801) 777-4694
- o Bonneville Power Administration, D. Berkey (503) 230-3606

Access to --

- o IBM 4341 computer system (on line) for scientific simulations and data analysis.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Single-Time Clients:

- o National Park Service, B. Keal
- o CALTRANS
- o U.S. Forest Service
- o U.S. Fish & Wildlife Service
- o Defense Mapping Agency

Details of Professional Staff:

Name: Thomas D. Taverney

Degree: M.S., Systems Management; B.S., Astronautical Engineering

Years Experience: 24

Fields: Preliminary design of spacecraft, space systems operations, man-machine interface definition, launch operations, orbital analysis, software development and configuration control, systems engineering and methodology development.

Name: Douglas L. Smith

Years Experience: 24

Fields: Communications, Command, Control and Intelligence (C³ I) system design and development, satellite design, development with specialized skills in design, man-machine, training, security, cost/schedule management, logistics, and systems engineering.

Details of Professional Staff: (continued)

Name: C. Chris Schneider, Jr.

Degree: Ph.D., Engineering

Years Experience: 17

Fields: Space System Engineering, Mission Planning/Orbital Analysis Attitude Dynamics/Control, Software Engineering, Project Management.

Name: John R. Carlyle

Degree: B.S., Physics

Years Experience: 19

Fields: Large Scale engineering data storage and retrieval systems analysis, design, programming integration, user training, communication system design and programming, computer facilities planning and operations management; management of real-time radar and sonar systems software development, configuration control, and quality assurance, integration facilities operation.

o Number of Personnel by Discipline:

- Aeronautical Engineers (2)
- Programmers (38)
- Electrical Engineers (15)
- Physicists (2)
- Electronic Design Engineers (3)
- Software Engineer (2)
- Astronautical Engineer (3)
- Senior Archaeologist (6)
- Cartographers (4)

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: (see also 13)

Company Name: Jalords, Incorporated

Address: 511 North Broad Street
Philadelphia, PA 19123

Telephone: (215) 592-1918

Year Founded: May, 1967

8(a) Status: Certified

Principal Name: James A. Davis

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982, \$600,000

Growth Pattern: 20% one-year increase in dollar-volume in 1980;
17% in 1982

No. Professional Staff: Full-time 10

Part-time 3

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Electrical Engineering 85

Minor Fields:

- (1) Feasibility Studies..... *
- (2) Building, Equipment and Site Survey..... *
- (3) Interior Industrial and Laboratory Layout..... *
- (4) Mechanical Packaging of Electronic Equipment..... *
- (5) General Mechanical and Electrical Drafting..... *

Facilities: On-Site--

o 3,400 square feet of office space.

Access To--

o Mainframe computer.

*Aspects of most of the firm's contracts.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Atti Consultants, LTD, E. Taylor (301) 296-2884
- o Bell Telephone Company of Pennsylvania
- o Cam & Clubreath Associates
- o City of Philadelphia
- o Livingston/Rosenwinkel Architects, W. Livingston (215) 765-8855
- o Ueland & Junker, Architects, T. Junker (215) 546-8950
- o General Services Administration, J. Luka (215) 597-3827
- o U.S. Postal Service, C. Isreal (215) 496-6227
- o Veterans Administration (PA) Campy (215) 382-8886
- o Veterans Administration (MD), G. Miller (301) 642-6058
- o U.S. Navy (NAEC), F. Purnell (215) 755-4824
- o U.S. Navy (NAVFAC)

Details of Professional Staff:

Name: James A. Davis, President

Degree: B.S., Mechanical Engineering

Years Experience: 27

Fields: HVAC design, specification and field supervision for commercial and industrial construction; energy conservation studies. Licensed professional engineer in seven states.

Name: Walter S. Farley, Jr., Chief Electrical Engineer

Degree: B.S., Electrical Engineering

Years Experience: 30

Fields: Design, specification, analysis and management of commercial and industrial electrical power systems; construction drawings for chemical process plants, generating stations, air fields and transmission sub-stations; cost estimating and design for 115/230 volt and 2,400 volt distribution facilities for system load re-inforcing.

Name: Michael L. Sciore, Staff Mechanical Engineer

Degree: B.S., Mechanical Engineering

Years Experience: 14

Fields: HVAC and plumbing design and construction; design and build a mechanical systems for hospitals.

Single-time Clients:

- o Cope Linder Associates/Power Lewis Thrower, R. E. Linder (215) 925-6767
- o Dupont Company
- o Federal Railroad Administration
- o Leon Bridges Company
- o Mitchell/Guergola Architects, J. Lawson (215) 925-0100
- o Rhett Hamilton Jones Associates, R. Jones (215) 296-4555
- o Scott Paper Company
- o Sun Oil Company
- o U.S. Army Corps of Engineers, J. Komett (215) 597-4716

Details of Professional Staff: (Continued)

Name: Eugene Brehme, Jr., Sanitary Engineer

Degree: None (engineering training)

Years Experience: 22

Fields: Design and documentation and construction review for water pollution control facilities, pump houses and a desalination power plant; domestic water and sanitary waste systems of a complex nature.

Notes:

- o Additional Professional Staff Field

- Fire Protection Engineer

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 3 (see also 4, 5)

Company Name: R30 Enterprises, Incorporated

Address: 2126 Espey Court
Crofton, Maryland 21114

Telephone: (301) 721-4000
(301) 858-0500

Year Founded: November, 1979

8(a) Status: Certified

Principal Name: Richard J. Otero

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$250,000
1983: \$789,000

No. Professional Staff: Full-time 20

Part-time

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Electrical Engineering..... 25

Minor Fields:

No. of Contracts:*

(1) Information Systems 13
(2) Air Traffic Control..... 13
(3) Tele-Communications..... 33
(4) Command and control..... 10

Facilities: On-Site--

- o 3,100 square feet of office space.
- o Vitor 9000 computer.
- o Digital Word Processing Computers.

Access To--

- o VAX 11/780 contractual arrangement.

*Based on corporate and staff experiences.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o The Bertman Group, (703) 281-7750
- o Naval Oceans Systems Center, A. Wuensch (619) 225-2594
- o Arinc, R. Schmidt (301) 266-4000
- o Computer Sciences Corp., J. Ludford (703) 533-6654

Details of Professional Staff:

Name: Richard J. Otero, President
Degree: M.S., Electrical Engineering
Years Experience: 22
Fields: Communications.

Name: Kent Haspert, Vice President
Degree: Ph.D., Electrical Engineering
Years Experience: 18
Fields: Communication systems.

Name: Phillip Walcoff, Executive Vice President
Degree: MSEE, Electrical Engineering
Years Experience: 20
Fields: Communication.

*A representative sample of clients.

Single-time Clients:

- o NASA, J. Sobola (202) 453-2010

Notes:

- o Offices presently have a SECRET level facility clearance and individual members of the RJO staff hold clearances through the level of SECRET.

o Specialty Areas:

- Telecommunications

- Nationwide, metropolitan, and local area networks.
- Microwave, satellite, cable, and land mobile radio communications.
- Switching, automatic call distributors, and private automatic branch exchange systems.
- Network control systems.

- Information Systems

- Mainframe, mini, and microcomputers.
- Software quality assurance, validation, and verification.
- Management information systems.
- Electronic mail.
- Data bases.
- Terminals.
- Local area networks.
- Standards.

- Air Traffic Control

- Automation.
- Interfacility communication systems.
- Data links, navigation, collision avoidance, and avionics systems.

- Command and control

- Strategic, tactical, and logistics command and control systems.
- Combat net radios.
- Integrated avionics systems.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 3 (see also 1, 13)

Company Name: Technology Applications, Inc.

Address: 3 Skyline Place
5201 Leesburg Pike, Suite 1000
Falls Church, VA 22041

Telephone: (703) 931-2000

Year Founded: 1977

8(a) Status: Certified

Principal Name: James I. Chatman

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume Year Ending April 1984: \$11,000,000

Year Ending April 1983: \$ 5,000,000

Year Ending April 1982: \$ 950,000

Growth Pattern: Steadily increasing, expanding rapidly

No. Professional Staff: Full-time 238

Part-time 3

Consultants 10

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Electrical Engineering..... 4

Minor Fields:

Facilities: On-Site--

- o PDP 1144
- o 2 North Star Horizon micro-computers

Access To--

- o David W. Taylor Naval Ship Research and Development Center; Carderock, MD and Portsmouth, VA.
- o NASA - Langley Research Center; EPA-Athens, GA.
- o Hampton Roads Industrial Division; Norfolk, VA.
- o Numerous time-sharing vendors' hardware including IBM, UNIVAC, Honeywell and DEC mainframes with a wide variety of compilers, statistical packages and Data Base Management Systems Software.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o David Taylor Naval Ship Research & Development Center,
Ed O'Neal, Walter Zietfuss (202) 227-1853
- o Naval Station Systems Command, Ralph Yeatles (202) 692-2434(5)

Details of Professional Staff:

Name: Edward Graham

Degree: M.S. International Relations; B.S. Engineering

Years Experience: 30

Fields: Engineering; weapons systems requirements; naval, aerospace and aviation equipment development.

Name: Theodore J. Lutz

Degree: M.S. Systems Analysis; B.S. Electrical Engineering

Years Experience: 8

Fields: Electrical engineering; systems analysis; marine engineering.

Name: Alexander M. Lehrer

Degree: B.E.E. Electrical Engineering; Registered P.E. Mechanical Engineering and Naval Architecture

Years Experience: 44

Fields: Electrical engineering; mechanical engineering; naval engineering.

Name: Dr. Franklin G. Fisher, Jr.

Degree: Ph.D., Sociotechnical Systems; M.P.A.; M.S.S.M.; B.S.S.E.

Years Experience: 25

Fields: Systems engineering; public administration.

Name: Emil M. Szten

Degree: B.S. Civil Engineering, Mechanical Engineering, Naval Architecture; Registered P.E.

Years Experience: 43

Fields: Government and industry experience.

Single-time Clients:

- o TRW Defense Systems Group, Edward Metcalf (703) 734-6270
- o Federal Aviation Administration, Warren Lichtenberg (202) 426-4897
- o U.S. Coast Guard, Dave Potter (202) 426-1204
- o Maritime Administration
- o Department of the Army, Col. Woodard (202) 697-1486
- o Naval Air Systems Command, Commander Kalapas (202) 692-1367
- o Urban Mass Transportation Administration, Rhoda Shorter (202) 426-9157
- o Federal Highway Administration, John Fegan (703) 285-2422
- o Environmental Protection Agency, Heinz Kollig (404) 546-3447
- o General Services Administration, John Landers (202) 535-7423

Notes:

- o Personnel capable in:

- Chemical Engineering
- Civil Engineering
- Electrical Engineering
- Mechanical Engineering
- Transportation Engineering
- Aerospace Engineering
- Industrial Engineering
- Physics
- Chemistry

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 3 (see also 4)

Company Name: Wilson Hill Associates, Inc.

Address: 1025 Vermont Avenue, N. W., Ninth Floor
Washington, D.C. 20005

Telephone: (202) 842-7700

Year Founded: 1978

8(a) Status: Certified

Principal Name: Patricia W. Hill

Title: President

Average Gross Receipts (3 yrs): 4.4M

Dollar Volume, 1983: \$4.8 Million

Growth Pattern: 45% one-year increase
in dollar volume in 1981
and no change in 1982

No. Professional Staff: Full-time 83

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Computer Systems Engineering (hardware
engineering and software systems)..... 90+

Minor Fields:

Facilities: On-Site--

- o Washington, D.C., Corporate Headquarters, 13,000 sq. ft.
- o Sagamore, Massachusetts, 1,500 sq. ft.
- o Rosslyn, Virginia, 1,500 sq. ft.
- o Wang VS80, Hewlett-Packard 250, and 3 Apple II+ computers; Data General Eclipse MV 8000.
- o Manufacturing equipment.
- o 24,000 sq. ft. plant on Long Island, New York, fully equipped for the fabrication of steel, aluminum and exotic metal assemblies and systems.
- o Resources and facilities necessary to design and fabricate the the non-computer components of computer-based systems, and to integrate the electronic and mechanical subsystems.

Access To--

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Key Clients:

- o Department of Transportation, Wash. D.C. (202) 426-8602
- o U.S. Coast Guard, Lt. J. D. Garity (202) 426-1636
- o U.S. Department of the Army, Ft. Davenport (301) 294-1319

Details of Professional Staff:

Name: Systems Engineering Division, Sr. Associate

Degree: M.S. Computer Science

Years Experience: 16

Fields: Computer systems engineering, ADP planning; System Acquisition support HW/SW Life Cycle Management techniques.

Name: Analytical Services Division, Senior Associate

Degree: B.S. Computer Science

Years Experience: 8

Fields: Software engineering (for scientific applications (modeling, simulation and numerical analysis), information systems & systems programming.

Name: Information Sciences Division, Senior Associate

Degree: B.S.; MBA

Years Experience: 14

Fields: Data communications; Network planning and analysis
Telecommunication systems design and management.

Name: Information Science Division, Senior Associate

Degree: B.S., 1960

Years Experience: 20

Fields: Computer System design, development, and implementation;
Configuration management. Software evaluation, requirements analysis; feasibility studies, project management.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 3 (see also 2, 13, 31)

Company Name: Wilson & Associates, Inc.

Principal Name: Henry Wilson, Jr., P.E.

Address: 4439 Reading Road
Cincinnati, Ohio 45229

Title: President

Telephone: (513) 641-2006

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$100,000-\$250,000 in fees for direct Federal work; \$500,000-\$1 Million for all other domestic work.

Year Founded: 1971

Growth Pattern: Steady

No. Professional Staff: Full-time 31; 2 professional support

8(a) Status: Certified

Capabilities and Experience of Firm:

Facilities: On-Site--

Major Fields:

No. of Contracts:

(1) Communication systems design.....4
(2) Fire protection.....30

o Three fully operational word processing systems; currently investigating the CADD System and an engineering system for analysis and design.

Minor Fields:

Access To--

(1) Computer facilities/services.....1

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

Single-time Clients:

- o University of Cincinnati, John J. Reese (513) 475-6161
- o Cincinnati Public Schools, C. W. Carroll (513) 369-4024
- o Warner Amex Cable Communications, Carlos Pesant (212) 484-7778

Details of Professional Staff:

Name: Henry Wilson, Jr., P.E.

Degree: A.S., Engineering

Years Experience: over 24 years

Fields: Civil, structural, electrical, and mechanical engineering design and construction administration experience.

Name: Hosea Frazier, P.E.

Degree: B.S. Architecture; M.S. Candidate (Structural Engineering)

Years Experience: over 16 years

Fields: Structural engineering, project management; structural design in reinforced concrete, steel and timber.

Name: Richard H. Mellot, A.I.A.

Degree: B.S., Architecture

Years Experience: over 10 years

Fields: Design, supervision; Project Architect for numerous Commercial and institutional buildings.



Electronic Engineering

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 4 (see also 16, 30)

Company Name: E. H. White & Co., Inc.

Address: 245 Clement Street
San Francisco, CA 94118

Telephone: (415) 668-0076

Principal Name: Earl H. White

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$2 million

Growth Pattern: 33% one-year increase in dollar volume in 1980 and periods of no growth since that time.

No. Professional Staff: Full-time 75

Part-time

Year Founded: 1971

8(a) Status: Certified

Capabilities and Experience of Firm:

Facilities: On-Site--

Major Fields:

No. of Contracts:

(1) Electronics Engineering.....*

- o Offices in San Francisco and Washington, D.C. have in-house computer and word processing capabilities, reproduction, graphics, and workshop/seminar facilities.
- o Staff in both places have software competence and regularly access national commercial databases.
- o In-house databases construction is extensive, as well as broad knowledge of international information systems.

Minor Fields:

- (1) Electrical Engineering.....*
- (2) Mechanical Engineering.....*
- (3) Seismology.....*

Access To--

- o Both sites have remote access to major computer time sharing systems.

Repeat Clients:

None (in technical areas)

Single-time Clients:

None (in technical areas)

*Technical areas represent a new business direction for the firm and are based solely on professional staff's capabilities and fields. (Provided extensive examples of previous and current large scale and long term contracts mostly in the area of social research.)

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Details of Professional Staff:*

Name: Michael O. Shick
Degree: Ph.D., Physics
Years Experience: 8
Fields: Materials/subsystems testing and evaluation; laser threats and missile vulnerability.

Notes:

- o Worked on projects concerned with: survivability of military systems in prespecified nuclear weapons environment and computational analysis and simulation of material/component response; developed methodology and computer codes to assess vulnerability of missile systems to high energy laser threat; chief consultant to Army Laser Systems Project Office on direction of missile vulnerability program.

Name: Shirish M. Gandhi
Degree: M.S.E.E.; P.E. Engineering
Years Experience: 13
Fields: Engineering; Electrical Power and Control Systems Analyst

Notes:

- o As a consultant and Technical Staff Engineer in the Kansas Gas and Electric Co.'s Nuclear Plant Engineering Department, provided leadership and guidance to a group of 15 process and I.C. Engineers in performance of Design Review, established startup procedures and supported management and coordination of consultants and contractors for the testing of Wolf Creek Nuclear Generating Station; as process engineer researched NRC guidelines and NUREGS and defined instrumentation, channels, tower parameters, computer configurations, peripherals and Nuclear Data Links for design of Emergency Response Facilities, Technical Support Centers and interfaces with Supervisory Control Systems in the Central Control Room. Under the direction of KG&E Nuclear Plant Management participated in writing of technical specifications and review of FSAR for Operating License. Coordinated Mechanical & Electrical Groups. On other projects: provided direction of electrical engineering design, recruitment and supervision of staff; provided consultation, design of power system and Process Control for Refinery and Chemical Plants; analysis and design of Neutral Beam Power Supplies for fusion power research experiments; electrical subsystems power systems.

Details of Professional Staff: (continued)

Name: John W. Childress, III
Degree: M.S. Physics, Mathematics
Years Experience:
Fields: Research geophysics; space mechanics; information systems; telecommunications.

Notes:

- o Taught physics and space mechanics; worked on APOLLO, SURVEYOR, BQS-13, CORA, NIPS, TIPS, MIDAS, DIMUS, FABMDS, S-70, NTDS, ATDS, DAMP, GASLIGHT, MMMinuteman, 480-L, COR, VIA, HULTEC, LRPA, S3A, MA-10, ASB-1, Sidewinder, MILLARD, THUMPER, AF EDL, and BAMB1. Also, responsibilities on other projects included: hardware and software design architectures; selection and implementation; verification and validation, and operation and maintenance activities; had responsibilities on the A.F. Laboratory Office Network System deployed at Hancomb Field and Rome Air Development Center; completed signal processing for sonar and adaptive HF systems, analysis of intelligence systems and systems analysis. As a Senior Research Geophysicist, a new method of seismic signal enhancement was developed for oil exploration.

Name: Thaddeus W. Usowicz
Degree: Ph.D., Medical Information and Computer Sciences
Years Experience: 24
Fields: Computer Languages (strong in FORTRAN AND PASCAL) database language and assembler; management sciences; computer applications problem solving and planning.

Notes:

- o Project responsibilities included: specification analyses and evaluation of projects with large capital expenditures; design and development of complex computer based patronage forecasting model fare-demand elasticity studies; computer simulation of systems operations; comparative energy consumption studies; development of a fluidic flowmeter (his own device) for biomedical and other applications; studies of intermodal, inter-operator transit integration practices; studies of private and public transportation on air pollution levels, energy consumption and congestion in major urban areas.

*Staff language competence in Spanish, French, Italian, German, Arabic, Somali, and two dialects of Chinese.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 4 (see also 13)

Company Name: Gaylord & Associates Corporation

Address: 505 East Olive Ave.
Sunnyvale, CA 94086

Telephone: (408) 733-2551

Year Founded: 1967

8(a) Status: Certified

Principal Name: Archie Gonzales

Title: President

Average Gross Receipts (3 yrs.)

Dollar Volume, 1982: \$800,000

Growth Pattern: Climbing 15%; \$800,000 highest volume (1981)

No. Professional Staff: Full-time 7

Part-time

Capabilities and Experience of Firm:

Major Fields:

(1) Electronics Engineering..... 10

Minor Fields:

(1) Technical Illustrations..... 4

No. of Contracts:

Facilities: On-Site--

- o Branch offices in Oakland and Oxnard, CA
- o Technical Publications/Printed Circuit Design capabilities
- o Word Processing; IBM composer; Headliner

Access To--

- o CAD/CAM 1-database

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Lawrence Livermore Laboratories, Brad Tuvey (415) 422-8547

Details of Professional Staff:

Name: Archie Gonzales

Degree: -

Years Experience: 21

Fields: Technical drawings and design; design of electro/mechanical equipment and architectural design criteria.

Name: Jeanne Gonzales

Degree: B.Sc., Accounting

Years Experience: 15

Fields: Business management; accounting systems; marketing techniques; tax planning and audits; technical publications.

Name: Marilyn D. Marshall

Degree: B.A., Liberal Studies

Years Experience: 10

Fields: Office management.

Name: David Orejel

Degree: Certificate, Mechanical Drawing

Years Experience: 7

Fields: PCB design/layout; mechanical design.

Single-time Clients:

- o Astro Namics, Ron Merritt (408) 965-8136
- o G. J. Yamas, Erik Eron (415) 761-5123
- o Microscience International Corp., Howard Tong (415) 961-2212
- o Shugart ASsociates, (408) 733-0100, ext. 2327
- o Surface Science Laboratory, Bill Peterson (415) 962-8767
- o Spectra Physics, Allan Peterson (415) 961-2550, ext. 2180
- o Granger Associates
- o Nuclear Enterprises
- o Watkins Johnson
- o VLSI Technology

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 4 (see also 3, 8)

Company Name: Infotec Development Incorporated
Address: 3505 Crilliac Avenue, Bldg. M
Costa Mesa, CA 92626

Telephone: (714) 241-8254

Year Founded: September, 1978

8(a) Status: Certified

Principal Name: J. Fernando Niebla
Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1983: \$6 Million

Growth Pattern: 77% one-year increase
in dollar volume in
1981; 50% increase in
1983

No. Professional Staff: Full-time 102
Part-time 10

Capabilities and Experience of Firm:

Major Fields:

- (1) Electrical Engineering.....
 - Satellite Operations
 - Communications Command
- (2) Electronics Engineering.....
 - Computer Systems Engineering
- (3) Geology/Geotechnical Engineering.....
 - Earth Sciences
 - Archaeology
 - Cartography

No. of Contracts:

Numerous
Numerous
Numerous

Facilities: On-Site--

- o Headquarters consisting of 12,500 square feet of office space, including digital photography, computer and cartography laboratories.
- o TOP SECRET cleared.
- o Field operation offices for the Systems Division located in Sunnyvale, CA (2,000 sq. ft.); Salt Lake City, UT (6,000 sq. ft) Colorado Springs, CO (1,000 sq. ft); Portland, OR (4,000 sq. ft); Washington, D.C. (500 sq. ft.)
- o A field office for the Earth Sciences Divisions located in Sonora, CA (6,000 sq. ft.)
- o VAX 11-780, VAX 11-750, PDP 11-23, HP-3000, two HP-1000's, IBM System 36, thirteen Televideo microprocessors, one Zenith 2400 microprocessors, three Kaypro microprocessors.

Repeat Clients:

- o U.S. Geological Survey
- o National Oceanic & Atmospheric Administration,
H. McClure (301) 763-8064
- o U.S. Navy
- o IBM (Gaithersburg, MD), Mark O'Hara (301) 840-6962
- o U.S. Air Force Satellite Control Center
- o U.S. Air Force (Hill Air Force Base, AFLC),
Bill Bankhead (801) 777-4694
- o Bonneville Power Administration, D. Berkey (503) 230-3606

Access to --

- o IBM 4341 computer system (on line) for scientific simulations and data analysis.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Single-Time Clients:

- o National Park Service, B. Keal
- o CALTRANS
- o U.S. Forest Service
- o U.S. Fish & Wildlife Service
- o Defense Mapping Agency

Details of Professional Staff:

Name: Thomas D. Taverney

Degree: M.S., Systems Management; B.S., Astronautical Engineering

Years Experience: 14

Fields: Preliminary design of Spacecraft, space systems operations, man-machine interface definition, launch operations, orbital analysis, software development and configuration control, systems engineering and methodology development.

Name: Douglas L. Smith

Years Experience: 24

Fields: Communications, Command, Control and Intelligence (C³I) system design and development, satellite design, development with specialized skills in design, man-machine, training, security, cost/schedule management, logistics, and systems engineering.

Details of Professional Staff: (continued)

Name: C. Chris Schneider, Jr.

Degree: Ph.D, Engineering

Years Experience: 17

Fields: Space System Engineering, Mission Planning/Orbital Analysis Attitude Dynamics/Control, Software Engineering, Project Management.

Name: John R. Carlyle

Degree: B.S., Physics

Years Experience: 19

Fields: Large Scale engineering data storage and retrieval systems analysis, design, programming integration, user training, communication system design and programming, computer facilities planning and operations management; management of real-time radar and sonar systems software development, configuration control, and quality assurance, integration facilities operation.

o Number of Personnel by Discipline:

- Aeronautical Engineers (2)
- Programmers (38)
- Electrical Engineers (15)
- Physicists (2)
- Electronic Design Engineers (3)
- Software Engineer (2)
- Astronautical Engineer (3)
- Senior Archaeologist (6)
- Cartographers (4)

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 4 (see also 3, 5)

Company Name: RJO Enterprises, Incorporated

Address: 2126 Espey Court
Crofton, Maryland 21114

Telephone: (301) 721-4000
(301) 358-0500

Year Founded: November, 1979

8(a) Status: Certified

Principal Name: Richard J. Otero

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$250,000

1983: \$789,000

No. Professional Staff: Full-time 20

Part-time

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Electronics Engineering..... 38

Minor Fields:

No. of Contracts:*

(1) Information Systems..... 13

(2) Air Traffic Control..... 13

(3) Tele-Communications..... 33

(4) Command and control..... 10

Facilities: On-Site--

- o 3,100 square feet of office space.
- o Vitor 9000 computer.
- o Digital Word Processing Computers.

Access To--

- o VAX 11/780 contractual arrangement.

*Based on corporate and staff experiences.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Federal Aviation Administration, M. Perie (202) 246-3290
- o Naval Oceans Systems Center, A. Wuensch (619) 225-2594
- o Isacomm, Inc., B. Tabak (404) 320-1033
- o Arinc, R. Schmidt (301) 266-4000
- o Air Force Logistics Command, Col. J. Maley (513) 257-7029
- o Maritel, Inc., D. King (301) 672-1700
- o The Bertman Group (703) 281-7750
- o Internal Revenue Service, J. Mannion (202) 566-4825

Details of Professional Staff:

Name: Richard J. Otero, President
Degree: M.S., Electrical Engineering
Years Experience: 22
Fields: Communications.

Name: Kent Haspert, Vice President
Degree: Ph.D., Electrical Engineering
Years Experience: 18
Fields: Communication systems.

Name: Phillip Walcoff, Executive Vice President
Degree: MSEE, Electrical Engineering
Years Experience: 20
Fields: Communication.

*A representative sample of clients.

Single-time Clients:

- o NASA, J. Sobola (202) 453-2010

Notes:

- o Offices presently have a SECRET level facility clearance and individual members of the RJO staff hold clearances through the level of SECRET.

o Specialty Areas:

- Telecommunications
 - Nationwide, metropolitan, and local area networks.
 - Microwave, satellite, cable, and land mobile radio communications.
 - Switching, automatic call distributors, and private automatic branch exchange systems.
 - Network control systems.
- Information Systems
 - Mainframe, mini, and microcomputers.
 - Software quality assurance, validation, and verification.
 - Management information systems.
 - Electronic mail.
 - Data bases.
 - Terminals.
 - Local area networks.
 - Standards.
- Air Traffic Control
 - Automation.
 - Interfacility communication systems.
 - Data links, navigation, collision avoidance, and avionics systems.
- Command and control
 - Strategic, tactical, and logistics command and control systems.
 - Combat net radios.
 - Integrated avionics systems.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 4 (see also 3)

Company Name: Wilson Hill Associates, Inc.

Address: 1025 Vermont Avenue, N. W., Ninth Floor
Washington, D.C. 20005

Telephone: (202) 842-7700

Year Founded: 1966

3(a) Status: Certified

Principal Name: Patricia W. Hill

Title: President

Average Gross Receipts (3 yrs): 4.4M

Dollar Volume, 1983: \$4.8 Million

Growth Pattern: 45% one-year increase
in dollar volume in 1981
and no change in 1982

No. Professional Staff: Full-time 83

Capabilities and Experience of Firm

Major Fields:

No. of Contracts:

(1) Computer Systems Engineering (hardware
engineering and software systems)..... 90+

Facilities: On-Site--

- o Washington, D.C., Corporate Headquarters, 13,000 sq. ft.
- o Sagamore, Massachusetts, 1,500 sq. ft.
- o Rosslyn, Virginia, 1,500 sq. ft.
- o Wang VS80, Hewlett-Packard 250, and 3 Apple II+ computers; Data General Eclipse MV 8000.
- o Manufacturing equipment.
- o 24,000 sq. ft. plant on Long Island, New York, fully equipped for the fabrication of steel, aluminum and exotic metal assemblies and systems.
- o Resources and facilities necessary to design and fabricate the non-computer components of computer-based systems, and to integrate the electronic and mechanical subsystems.

Minor Fields:

Access To--

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Department of Transportation, L. Slough (202) 426-8602
- o U.S. Coast Guard, Lt. J. Doherty (202) 426-1666
- o U.S. Department of the Army, D. Davenport (301) 394-1310

Details of Professional Staff:

Name: Systems Engineering Division, Sr. Associate

Degree: M.S. Computer Science

Years Experience: 16

Fields: Computer systems engineering, ADP planning; System Aquisition support HW/SW Life Cycle Management techniques.

Name: Analytical Services Division, Senior Associate

Degree: B.S. Computer Science

Years Experience: 8

Fields: Software engineering for scientific applications (modeling, simulation and numerical analysis), information systems & systems programming.

Name: Information Sciences Division, Senior Associate

Degree: B.S.; MBA

Years Experience: 14

Fields: Data communications; Network planning and analysis
Telecommunication systems design and management.

Name: Information Science Division, Senior Associate

Degree: B.S., 1960

Years Experience: 20

Fields: Computer System design, development, and implementation;
Configuration management. Software evaluation, requirements analysis; feasibility studies, project management.

Emergency Planning

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 5 (see also 3, 4,)

Company Name: RJO Enterprises, Incorporated

Address: 2126 Espey Court
Crofton, Maryland 21114

Telephone: (301) 721-4000
(301) 858-0500

Year Founded: November, 1979

8(a) Status: Certified

Principal Name: Richard J. Otero

Title: President

Average Gross Receipts (3 yrs):
Dollar Volume, 1982: \$250,000
1983: \$789,000

No. Professional Staff: Full-time 20

Part-time

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Emergency Planning (evaluation and/or
development of emergency communications
systems)..... 2

Facilities: On-Site--

- o 3,100 square feet of office space.
- o Vitor 9000 computer.
- o Digital Word Processing Computers

Minor Fields:

No. of Contracts:*

(1) Information Systems..... 13
(2) Air Traffic Control..... 13
(3) Tele-Communications..... 33
(4) Command and control..... 10

Access To--

- o VAX 11/780 contractual arrangement.

*Based on corporate and staff experiences.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Defense Communications Agency, R. White

Details of Professional Staff:

Name: Richard J. Otero, President
Degree: M.S., Electrical Engineering
Years Experience: 22
Fields: Communications.

Name: Kent Haspert, Vice President
Degree: Ph.D., Electrical Engineering
Years Experience: 18
Fields: Communication systems.

Name: Phillip Walcoff, Executive Vice President
Degree: MSEE, Electrical Engineering
Years Experience: 20
Fields: Communication.

*A representative sample of clients.

Single-time Clients:

- o Federal Emergency Management Administration (202) 287-3872
- o NASA, J. Sobola (202) 453-2010

Notes:

- o Offices presently have a SECRET level facility clearance and individual members of the RJO staff hold clearances through the level of SECRET.
- o Specialty Areas:
 - Telecommunications
 - Nationwide, metropolitan, and local area networks.
 - Microwave, satellite, cable, and land mobile radio communications.
 - Switching, automatic call distributors, and private automatic branch exchange systems.
 - Network control systems.
 - Information Systems
 - Mainframe, mini, and microcomputers.
 - Software quality assurance, validation, and verification.
 - Management information systems.
 - Electronic mail.
 - Data bases.
 - Terminals.
 - Local area networks.
 - Standards.
 - Air Traffic Control
 - Automation.
 - Interfacility communication systems.
 - Data links, navigation, collision avoidance, and avionics systems.
 - Command and control
 - Strategic, tactical, and logistics command and control systems.
 - Combat net radios.
 - Integrated avionics systems.



Environmental Impacts

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 6, (see also 2, 7, 29)

Company Name: Bryant Associates

Address: 1420 N Street NW, Suite 100
Washington, D.C. 20005

Telephone: (202) 232-5192 or 5193

Year Founded: 1959

8(a) Status: Certified

Principal Name: Andrew D. Bryant

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$892,000

Growth Pattern: 59% one-year increase in dollar volume in 1981 and 54% in 1982.

No. Professional Staff: Full-time 16

Part-time 4

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Environmental Impacts..... 2

Minor Fields:

(1) Waste Management..... 5
(2) Water Chemistry..... 5
(3) Hydrology..... *

Facilities: On-Site--

- o Principal office 2,000 square feet.
- o Branch office in Berkeley, California.

Access To--

- o Main frame computer.

*Based on professional staff's experiences and fields

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Howard University (Dormitory & Library feasibility study),
B. G. Harris (202) 636-7802

Single-time Clients:

- o Federal City College (feasibility study, 1968 joint venture),
C. Ford (Vice President)

Details of Professional Staff:

Name: Andrew D. Bryant, President
Degree: B.A., Architecture
Years Experience: 25
Fields: Architecture

Name: Daniel D. K., Vice President
Degree: M.A., Architecture
Years Experience: 16
Fields: Architecture

Name: Galen A. Leek, Vice President
Degree: B.S., Civil Engineering
Years Experience: 30
Fields: Civil Engineering; operations

Name: Jerry Y. Fujimoto
Degree: B.A., Architecture
Years Experience: 15
Fields: Architecture

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NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 6 (see also 25, 27, 28)

Company Name: Chi Associates, Inc.

Address: 2045 N. 15th Street
Arlington, VA 22201

Telephone: (703) 558-3400

Year Founded: 1974

8(a) Status: Certified

Principal Name: Michael Chi

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$600,000-\$700,000; 1983: \$650,000

Growth Pattern: Rising slowly, slight fluctuation

No. Professional Staff: Full-time 12

Part-time 6

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Environmental Impacts..... 4

Minor Fields:

(1) Civil Engineering..... 5
(2) Naval Architecture..... 14
(3) Mechanical Engineering..... 2
(4) Transportation..... 1
(5) Hydrology.....

Facilities: On-Site--

- o Horizon North Star minicomputer.
- o Library of scientific programs on numerical methods and techniques.
- o IBM PC plus printer
- o Commodore Microcomputer
- o Tektronix Graphic equipment
- o NEC microcomputer
- o High speed printer
- o Three CRTs
- o QYX word processor

Access To--

- o Time-sharing terminals and batch processing to IBM 360/65, IBM 370/168, IBM 3031, IBM 3033, CYBER 175, CDC 6700, Burroughs 7700, UNIVAC 1108, DEC-10, DEC-20.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Environmental Protection Agency

Details of Professional Staff:

Name: Michael Chi

Degree: Sc.D., P.E.

Years Experience: 30

Fields: Hydraulics; structural dynamics; transportation engineering.

Name: Norman Lutkefedder

Degree: M.S., P.E. Mechanical Engineering

Years Experience: 20+ years

Fields: Energy and environmental systems.

Name: Ramesh H. Vaishnav

Degree: Ph.D.

Year Experience: 25

Fields: Civil engineering; mechanical engineering.

Name: John R. Burke

Degree: M.S. Chemical Engineering

Year Experience: 25

Fields: Space and transportation

Single-time Clients:

Notes:

- o Additional Professional Staff:

- Morton Taragin, Ph.D. Physics; B.S. Engineering

- M. Toby Shams, Ph.D. Physics

- Arthur E. Hirsch, B.S., M.B.A. Biomechanical Engineer, 25+ years

- Jafar Vossoughi, M.S. Civil Engineering, B.S. Mechanical Engineering

- Nopporn Khaewpong, M.S. Structural Engineering

- Richard P. Nalesnik, Ph.D. Public Administration; Technology Management; M.S. Public Communications; B.S. Engineering Management -- held numerous positions at executive level in various federal agencies -- EPA, Interior, Commerce, NASA.

Field: Environmental Systems Management.

- Hugh Y. H. Yeh, M.S. Naval Architecture; Marine Engineering.

Field: Hydrodynamic Research.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 6 (see also II, 31)

Company Name: Cor, Inc.

Address: 105 N. Virginia Avenue
Falls Church, Virginia 22046

Telephone: (703) 534-0011

Year Founded: 1979

8(a) Status: Certified

Principal Name: Pham Chopra

Title: President

Average Gross Receipts (3 yrs):
May be obtained through Dun & Bradstreet, Inc. in
Allentown, PA

No. Professional Staff: Full-time 65

Part-time 2

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Environmental Impacts..... 1

Minor Fields:

(1) Nuclear Engineering..... *

(2) Nuclear Reactor..... *

(3) Solar Heating and Cooling..... 1

(4) Energy Management Support..... 1

(5) Engineering Support Services..... 10

Facilities: On-Site--

- o 12,000 square feet of program office space (in Falls Church).
- o Four operations centers (Lexington Park, Maryland; King George, Virginia; San Diego, California; Sierra Vista, Arizona)
- o Branches and field offices in four states
- o Large and small conference rooms.
- o Xerox copiers and telecopiers.
- o IBM System 36 minicomputer.
- o Three Intertec "Superbrain" microcomputers with Word Processing and other software.
- o DTI terminal.
- o Other equipment.

*Based on experience and education of professional staff.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o U.S. Coast Guard, Richard Spencer
- o Argonne National Laboratory, Department of Energy, Nancy Duncan, ANL
- o U.S. Army Coastal Engineering Research Center Mary Wrenn, CERC
- o Naval Surface Weapon Center, White Oak Lab, Dennis Hunt, NSWC

Details of Professional Staff:

Name: Pham Chopra, President
Degree: PhD (Studies Toward), M.S.E.,
Naval Architecture and Marine Engineering
Years Experience: 17
Fields: Engineering Management, Hydrodynamics

Notes:

- o Over 17 years of progressive engineering management, consulting and research experience. Expertise in the fields of hydrodynamics oceans systems, design ship systems engineering, and sonar systems. Conducted floating nuclear power plant study for Con Edison, major wave force studies, systems design of SPRUANCE CLASS destroyers and diversified R & D projects.

Name: Prem Chopra, Vice President
Degree: PhD, Structural Mechanics
Years Experience: 10
Fields: Nuclear Structures and Design.

Notes:

- o Mr. Chopra has 10 years progressive experience in the area of nuclear (structural thermo-mechanical analysis); reactor system design (concrete vessel and steel liner; the reactor core; the core support structures, fuel handling systems; the control rods and drives system, the reactor cooling system and top closures); analysis and design of upgrade fuel elements for modified TREAT reactor. Also directed a technical team

Single-time Clients:

Details of Professional Staff: (Continued - Prem Chopra)

which refined the STF Reactor Concept and prepared cost elements and schedules. In another assignment was responsible for structural and mechanical analysis of fuel elements and components of the core, the reactor and the steam generation plant.

Name: H. Lawrence Byer
Degree: PhD (Course work completed) M.S.M.E.
Year Experience: 12
Fields: Energy and Environmental Studies

Notes:

- o Progressive research and management experience in the energy and environmental fields specially regulatory issues. Computer simulation modeling; system component studies for nuclear power, was program director for Reactor Engineering Division of ANL; studies on heat transfer limitations for nuclear rocket applications, thermo-chemical and reaction-kinetic studies.

Name: C. A. McComber
Degree: B.A., Business Administration
Years Experience: 24
Fields: Project Management, Computer Systems and Operation

Notes:

- o Extensive project management and management consulting experience for defense agencies and industry. Expertise in organizational, operational and financial planning and quality control of software heavy engineering systems; monitoring and evaluation of performance and productivity improvement.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 6 (See also)

Company Name: Del Green Associates, Inc. (DGA)

Address: 220 Lincoln Centre Dr.
Foster City, CA 94404

Telephone: (415) 574-4737

Principal Name: Del Green

Title: President

Average Gross Receipts (3 yrs):
Dollar Volume, 1982: \$1,689,951

Year Founded: 1972

No. Professional Staff: Full-time 9

8(a) Status: Certified

Part-time 7 (as needed)

Capabilities and Experience of Firm:

Facilities: On-Site--

Major Fields:

No. of Contracts:

(1) Environmental Impacts..... 5

o Three offices in California

o Computerized data system that assists in the analysis of organic compounds at microquality concentrations.

Minor Fields:

Access To--

(1) Environmental Program Evaluation..... 11

(2) Health Effects Research..... 13

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Environmental Protection Agency, John Busik (202) 755-2560

Details of Professional Staff:

Name: Roy H. Neulicht
Degree: B.S., Chemical Engineering
Years Experience: 11
Fields: Air quality emissions testing and continuous monitoring.

Notes:

- o EPA Training Institute - "Continuous Emission Monitoring" (1974) and Government Institutes, Washington, DC - "Environmental Law" (1976).

Name: Alan J. Senzel
Degree: M.B.A., Public Administration; Ph.D., Analytical Chemistry
Years Experience: 16
Fields: Analytical chemistry; regulatory and analytical methods for foods, drugs, pesticides, cosmetics, feeds, fertilizers, hazardous substances, and other materials related to agriculture and public health and welfare.

Notes:

- o Expertise in health effects criteria documentation, including acute and chronic toxicity, carcinogenesis, mutagenesis, and teratogenesis; analytical methodology for toxic substances; evaluation of analytical methodology for determination of trace elements for toxic substances.

Single-time Clients:

- o Food & Drug Administration, Voyce T. Whitley (301) 443-1544
- o Bissell & Karn, Inc., Herbert Crowle (415) 483-2170
- o City of Long Beach, CA, Suad Cano (213) 629-5511

Details of Professional Staff: (Continued)

Name: Irwin J. Weisenberg
Degree: B.H.E., Mechanical Engineering
Years Experience: 13
Fields: Nonferrous smelting, mining, mineral processing, emission control technology for sulfur dioxide, engineering evaluation of ore processing operations, particular collection system design and acid plant technology.

Name: Henry C. Wohlers
Degree: Ph.D., Thermo-Dynamics
Years Experience: 43
Fields: Laboratory research and environmental affairs; environmental problems in Southeast Asia, Europe, South America and the United States.

Notes:

- o Extensive technical publications.

Notes:

- o Other professional staff fields:

- Environmental Biology
- Biology (2)
- Applied Economics
- Psychology
- Chemistry
- Environmental Management
- Environmental Science
- Electrical Engineering
- Human Services

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 6 (see also 2, 8, 28)

Company Name: Delon Hampton & Associates

Address: 2000 K Street, NW, Suite 300
Washington, DC 20001

Telephone: (202) 293-3666

Year Founded: 1973

8(a) Status: Certified

Principal Name: Delon Hampton

Title: President

Average Gross Receipts (3 yrs):
Dollar Volume, 1983: \$3.4 million
Growth Pattern: 6% avg. increase since 1979

No. Professional Staff: Full-time 80

Part-time -

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Environmental and Sanitary Impacts.....39

Minor Fields:

Facilities: On-Site--

- o Offices in Atlanta, Georgia; Chicago, Illinois; Los Angeles, Calif; and Rockville, Maryland (Corporate Headquarters): 15,800 square feet).
- o Computer (Digital PD 11) and Word Processor Equipment

Access To--

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Other Clients:

- o Tennessee Dept. of Transportation
- o Washington Metropolitan Area Transit Authority
- o District of Columbia, Dept. of Environmental Services
- o U.S. Environmental Protection Agency
- o Washington Suburban Sanitary Commission
- o Montgomery County, Maryland

Details of Professional Staff:

Name: Delon Hampton, President
Degree: Ph.D., Civil Engineering
Years Experience: 23
Fields: Geotechnical Engineering.

Name: K. Varadarajan (Rajan), Vice President
Degree: Ph.D., Structural Engineering
Years Experience: 22
Fields: Structural Engineering.

Name: John M. Zimmer
Degree: B.C.E., Civil Engineering
Years Experience: 19
Fields: Civil Engineering and Transportation

Name: M. G. Henon
Degree: M.S. C.E.
Years Experience: 10
Fields: Structural Engineering

Single-time Clients:

- o Maryland State Highway
- o Bi-State Development Agency
- o Capital Gateway Corporation
- o Chesapeake Gateway Corporation
- o Maryland Department of Transportation
- o U.S. Environmental Protection Agency (Cincinnati, OH)

Notes:

- o Extensive publications and experience in civil and geotechnical engineering; Registered Professional Engineer in 14 states.
- o Registered Professional Engineer.
- o Registered Professional Engineer in 10 states.
- o Registered Professional Engineer in 2 states.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 6 (see also 1, 30, 31)

Company Name: Energy and Environmental Engineering, Inc.

Address: 18 Monsignor O'Brien Highway
P.O. Box 215
E. Cambridge, MA 02141

Telephone: (617) 720-3800

Principal Name: James H. Porter

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$850,000

Growth Pattern: 1981: 68% one-year growth rate
1982: 30%

Year Founded: October, 1979

No. Professional Staff: Full-time 9

8(a) Status: Certified

Part-time 10

Capabilities and Experience of Firm:

Major Fields:

(1) Environmental Impacts..... 3

Minor Fields:

(1) Water Pollution Abatement Plans..... 1

(2) Nuclear Engineering..... None²

Facilities: On-Site--

o 2,000 square feet of office space.

o 300 square feet of experimental chemical laboratory space.

Access To--

²See experiences of staff person Avijet Ray.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Department of Energy Pittsburgh Energy Center

Details of Professional Staff:

Name: James H. Porter, President
Degree: Sc.D.
Years Experience: 25
Fields: Chemical Engineering.

Name: C. Michael Mohr
Degree: Sc.D.
Years Experience: 25
Fields: Chemical Engineering

Name: Ralph A. Horne
Degree: Ph.D. and J.D.
Years Experience: 25
Fields: Physical Chemistry; Marine Chemistry; Law.

Name: Avijet Ray, Manager Environmental Div.
Degree: M.S.
Years Experience: 9
Fields: Chemical Engineering; Nuclear Engineering.

Single-time Clients:

- o General Electric Company
- o Federal Aviation Administration, Ashra Jan (617) 273-7233

Notes:

- o Known for the development of new process concepts and for the application of computers for process design and simulation. Has made significant contribution in the fields of fluidization technology, membrane permeation systems; and computerized design and analysis of advanced power cycles. Expert in the design and operation of fluid bed combustors including design of staged fluid used retorting system, the design of fluidized bed steam boilers for oil field flooding, the design and construction of a four foot by nine foot fluid bed steam boiler and the design and testing of TGA facilities for limestone sulfur capture analysis. Extensive publications.
- o Senior Staff Scientist -- prepares environmental impact statements; toxic waste disposal methods; and solar technology expert. As a post-doctoral research associate and fellow, Department of Chemistry and Laboratory for Nuclear Science, MIT, completed fundamental research on radiochemistry and the physical-chemistry solvent extraction and ion exchange.
- o Contribution to research in area of solid waste management in which an in-situ waste containment technology was proposed so as to prevent the flow of leachates from abandoned toxic and hazardous waste sites. Proposed the concept of destruction of toxic chemicals in wastewater by the application of lasers. Also, in area of nuclear engineering, has extensive experience in the treatment of off-gases from nuclear power plants and in nuclear chemistry and radio-chemistry, in particular, the application of radioisotope tracers to physical chemistry and to industrial separation processes including ion exchange and solvent extraction technology.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 6 (see also 10, 19, 20)

Company Name: Engineering & Economics Research, Inc.

Address: 1951 Kidwell Drive
Vienna, VA 22180

Telephone: (703) 893-8600

Year Founded: 1979

8(a) Status: Certified

Principal Name: Harpal S. Dhillon

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: No information

Growth Pattern: 68% one-year growth rate in 1981;
42% in 1982; and 59% in 1983

No. Professional Staff: Full-time 110

Part-time 8

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Environmental Impacts/
Geotechnical Engineering..... 7

Minor Fields:

None None

Facilities: On-Site--

- o Maintains two locations with executive offices, professional staff and business offices, library, meeting facilities.
- o Prime 750 computer which contains a core memory of 2 million bytes, disk space of 300 megabytes, and a tape drive backup, 12 IBM personal computers, a Wang 2200, an Osborne and a Dynabyte DB8/2 computer.
- o The prime supports 6 TAB terminals, a high speed Printomex 600 line printer; and a Zeta color graphics plotter. At maximum configuration the computer will support 128 terminals.

Access To--

- o Has available two remote terminals with access to PRCS time-sharing mainframe (IBM 360/91).

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o National Oceanographic and Atmospheric Administration, R. Norling (202) 254-3483
- o Department of Energy, Fred Able (202) 252-9398
- o Environmental Protection Agency, T. Knutson (202) 382-2794

Details of Professional Staff:

Name: Harpal S. Dhillon, President

Degree: Ph.D., Industrial Engineering and Operations Research

Years Experience:

Fields: Systems analysis and design; mathematical programming; strategic, technological and economic evaluation of programs for energy, resources and environment; cost/benefit analysis; production planning and control; statistics and quality control; and computer applications.

Name: Jai N. Gupta, Executive Vice President

Degree: M.Sc. Electrical Engineering; M.B.A. Business Finance;

Ph.D. Communications Image Processing and Pattern Recognition

Years Experience:

Fields: Aerospace and energy systems.

Name: Morris N. Gunzburg, Vice President

Degree: B.S. Electrical Engineering

Years Experience:

Fields: Product planning and evaluation; corporate management; planning and marketing.

Name: George M. Frederickson, Senior Analyst

Degree: B.A.E. Aeronautical Engineering

Years Experience:

Fields: Systems engineering and analysis; software consultation and programming in applications, including on-line data bases, real time tracking and commanding, weapon system data processing and scientific programming.

Single-time Clients:

- o Department of Health, Education and Welfare
- o Organization of American States

Notes:

- o Additional Staff Expertise:

- Human Resource Development
- Space Physics
- Electrical Communications
- Automatic Speech Recognition
- Man-Machine Interaction
- Mathematical Statistics
- Aerospace and Data Systems
- Transportation Systems
- Upper Atmosphere Research Satellite (UARS) Computer Support
- Industrial Administration
- Energy and Environmental Systems
- Civil Engineering
- Solid State Science
- Mechanical Engineering
- Qualitative Evaluations and Policy Analysis
- Chemical Engineering
- Analytical Chemistry

- o Staff has provided diversified professional services to a number of clients, which include private domestic and foreign firms, federal agencies, national laboratories, and state and foreign governments.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 6 (see also 2, 11)

Company Name: Enviroscience, Inc.

Address: 2021 East Hennepin Avenue
Minneapolis, MN 55413

Telephone: (612) 379-7242

Year Founded: September, 1979

8(a) Status: Certified

Principal Name: K. Dennis Kim

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$275,000
1981: \$180,000
1980: \$ 56,000

No. Professional Staff: Full-time 11

Part-time -

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Environmental Impacts..... 4

Minor Fields:

(1) Waste Management..... 5
(2) Geotechnical Engineering..... 3
(3) Structural Engineering..... 9

Facilities: On-Site--

o Data retrieval and word processing capabilities.

Access To--

o University of Minnesota Computer Center.
o Use of CRAY IA; CDC CYBER; DEC-VAX; Xerox 9700 computers for Water Resources Engineering.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

o Barr Engineering Co. - I. E.

Single-time Clients:

o Harold Israelson & Assoc. (612) 884-5381

Details of Professional Staff:

Name: Isaac Yontovian, P.E.

Degree: M.S., Water Resources/Civil Engineering; Ph.D. Coursework
Waste Management/Agricultural Engineering

Years Experience: 12+

Fields: Water resources; hydrology; hydraulic; computer models.

Name: K. Dennis Kim, P.E.

Degree: M.S., Fluid Mechanics; Ph.D., Hydraulics/Water Resources

Years Experience: 10+

Fields: Hydraulic and hydrologic models; water resources; computer models.

Name: Ruben F. Yontovian

Degree: M.S., Computer Science; Graduate Work, Management
Information System

Years Experience: 15+

Fields: Computer Science; systems analyst; microprogrammer; field service engineering.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 6 (see also 8, 26, 30)

Company Name: Geo/Resource Consultants
Corporate Headquarters

Address: 1620 Montgomery Street
San Francisco, CA 94111

Telephone: (415) 431-3177

Year Founded: December, 1976

8(a) Status: Certified

Principal Name: Alvin K. Joe, Jr.; R.G., C.E.G.

Title: President and Chief Executive Officer

Average Gross Receipts (3 yrs):
Dollar Volume, 1982: \$900,000 (est.)
Growth Pattern: Will provide

No. Professional Staff: Full-time 30

Part-time 5

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Environmental Impacts..... 13

Minor Fields:

Facilities: On-Site--

- o Corporate headquarters is located in San Francisco with four branch offices in Seattle, Washington; Tucson, Arizona; and Washington, D.C.
- o Maintains its soil testing laboratory at its San Francisco and Tucson offices; has its own geophysical equipment and downhole shear wave hammer, and maintains a pool of field equipped vehicles for exploration and field testing purposes.
- o In addition, equipped with computer for word processing and slope design, and has recently developed its own Earthquake Data Bank.
- o Utilizes a portable video camera and video cassette recorder (VCR) for geologic/geotechnical field reconnaissance and documentation and for in-house corporate training programs.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:*

- o East Bay Municipal Utilities District, S. Wason (415) 932-1710;
J. Bischoff (415) 945-3000

Details of Professional Staff:

Name: Alvin K. Joe, Jr., President
Degree: B.S.
Years Experience: 13
Fields: Geology.

Name: Bruce Auld
Degree: M.A.
Years Experience: 17
Fields: Geophysics.

Name: Alan D. Tryhorn, Vice President/Chief Geologist
Degree: B. A.
Years Experience: 11
Fields: Geology.

Name: Fred Chen
Degree: M.S.
Years Experience: 18
Fields: Civil Engineering.

*A representative sample of clients.

Single-time Clients:*

- o Pacific Gas and Transmission Company, g. Meyer (415) 768-1234

Notes:

- o GRC is a member of the Consulting Engineers Association of California, Association of Soil and Foundation Engineers, Society of American Military Engineers, Soil and Foundation Engineers Association, Asian American Architects and Engineers, and the Association of Minority Consultants. Our professionals regularly publish and present technical papers and are actively involved in the ASCE, AEC, SEG society of Mining Engineers, and the Geological Society of America.
- o The firm's primary expertise lies in the diversified geologic and geotechnical engineering backgrounds of its key professionals. GRC's professional staff has been involved in many geotechnical studies concerning regional geologic and seismic hazards mapping, sedimentation and erosion studies in both inland and coastal areas, stream scour studies across bridge crossings, siting studies for buildings, land-slide classification mapping, pipelines, tunnels, the rehabilitation of historic landmark structures, and dam safety analyses. In addition, GRC's staff has been involved in numerous coastal EIRs, dam and reservoir studies, regional geoplanning studies, landfill engineering studies, hydro site feasibility studies, subways, transmission line and pipeline right of way studies, acid mine drainage studies, economic geologic studies of rock and gravel quarries, geotechnical studies for co-generation power facilities, and hazardous waste investigations of hydrocarbon contaminated sites and hydrogeologic studies of groundwater basins.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 6 (see also 2, 13, 28)

Company Name: John E. Foster and Associates, Inc.

Address: 1134 Corrugated Way
Columbus, Ohio 43201

Telephone: (614) 294-5234

Year Founded: March, 1979

8(a) Status: Certified

Principal Name: John E. Foster, P.E.

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$523,154

Growth Pattern: 71% one-year increase in dollar volume in 1981; 40% in 1982 and 18% in 1983.

No. Professional Staff: Full-time 23

Part-time 8

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Civil Engineering.....	8
(2) Environmental Impacts.....	8
(3) Mechanical Engineering.....	7
(4) Structural Engineering.....	14
(5) Public Engineering.....	4

- Facilities: On-Site--
- o 2,850 square feet of office space in Columbus, Ohio
 - o Conference room, library, xerox room, drafting room, engineering design area, environmental planning area, marketing area and administrative area.
 - o 2080 square feet of office space in Cleveland, Ohio.
 - o Conference room, xerox room, drafting room, engineering design area and administrative area.

Minor Fields:

(1) Acoustics.....	2
(2) Wastewater Management.....	18
(3) Energy Conservation/Management.....	5
(4) Water Systems Engineering.....	6

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Ohio Department of Natural Resources, J. Swartzmiller (614) 265-6948
- o Ohio Department of Transportation
- o City of Columbus, Department of Public Service
- o City of Cleveland, Department of Public Service
- o Cleveland Bridge Improvements, R. Barrish (216) 664-3346
- o U.S. Army Corps of Engineer, Louisville District
- o Franklin County Engineer, J. Circle (614) 462-3030
- o Southerly Wastewater Treatment Plant, Columbus Ohio
- o Jackson Pike Wastewater Treatment Plant, Columbus, Ohio
- o Community Services Administration

Details of Professional Staff:

Name: John E. Foster, P.E.

Degree: Bachelor of Civil Engineering

Years Experience: 27

Fields: Civil Engineering; Structural Engineering; Environmental Engineering

Name: Harry W. Roberts, P.E.

Degree: Bachelor of Civil Engineering

Years Experience: 21

Fields: Civil Engineering; Structural Engineering; Transportation Engineering.

Name: Albert S. Yrefts, P.E.

Degree: Bachelor of Mechanical Engineering

Years Experience: 30

Fields: Mechanical Engineering; Process Systems; systems Engineering

Single-time Clients:

- o Ohio Department of Energy
- o U.S. Department of Interior, National Park Service
- o City of Youngstown, Ohio
- o The Ohio State University
- o City of Bexley, Ohio
- o Central Ohio Transit Authority
- o Cleveland Public Square Improvements
- o Pike Housing Authority, Weatherby (614) 221-8487
- o Scioto Village-Phase II, Weatherby (614) 221-8487
- o Timber Ridge Apartments, Weatherby (614) 221-8487
- o Upper Mill Creek Wastewater Facilities, R. Tibbet (614) 459-2050
- o Blacklick Interceptor Facilities, (614) 888-4953
- o Long Term Solids Handling Facilities, (614) 888-4953
- o Union City Wastewater Treatment Plant
- o Sanitary Sewer Relocation, Monsanto Research Corporation

Notes:

- o Has the capability and credentials, based on accumulated professional, technical and academic accomplishments, to provide a wide range of civil, sanitary, municipal and architectural-engineering services. The scope of services includes investigations, identification of appropriate technologies, report preparation, detail, project design, construction supervision and operational analysis. Professional engineer in Ohio, Michigan and Pennsylvania.
- o Serves as Chief Engineer for the firm. Responsibilities include administration, management and control of production operations, recruitment and marketing activities in the Cleveland area. As Chief Engineer responsible for design, review, quality control and coordination of design activities. Professional Engineer in 3 states.
- o Serves as Chief Mechanical Engineer for the firm. Responsibilities include design, review, production operations and supervision of mechanical engineering design. Extensive experience in oil refining, chemical and synthetic fuels industries.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 6 (see also 2, 8)

Company Name: Heiji Resource Consultants

Address: 940 North 400 East
P.O. Box 267
North Salt Lake, Utah 84054

Telephone: (801) 298-2401

Principal Name: Tom N. Hori

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$850,000 annually

Growth Pattern: Leveled off after early peak;
holding steady last two years.

Year Founded: 1977

No. Professional Staff: Full-time 9

8(a) Status: Certified

Part-time 6

Capabilities and Experience of Firm:

Facilities: On-Site--

Major Fields:

No. of Contracts:

(1) Environmental Impacts..... 10

o Data General Eclipse S/250 computer,
512 K byte memory; 190 megabyte disk,
800/1600 BPI 9 track tape drive; digital plotter,
line printer, 4 Tektronix graphics terminals with
high resolution digitizing tablets.

o Drafting services; typing; technical editing.

Minor Fields:

(1) Botanical Surveys and Mapping..... 6
(2) Riparian Classification Studies..... 2
(3) Ecological Systems Studies..... 1
(4) Environmental Impact Assessments..... 1

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Bureau of Land Management, J. Cunningham (803) 234-5437
- o U.S. Forest Service, L. Wiese (801) 625-5213

Single-time Clients:

- o U.S. Fish & Wildlife Service, J. Miller (303) 234-3496
- o CH2M Hill, G. Evans (801) 539-0070
- o Uintah-Urday Indian Reservation, J. Cutch (801) 722-5141

Details of Professional Staff:

Name: Tom N. Hori, President

Degrees: Business Management Graduate

Years Experience: 13

Fields: Marketing; Administration; Finance.

Name: Richard C. Fox, Senior Manager

Degrees: B.S., Geology; M.S., Geophysics

Years Experience: 16+

Fields: Geology; geophysics; application of geophysical techniques in exploration programs.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 6 (see also 29, 13, 28)

Company Name: Mobility Systems & Equipment Company

Address: 6151 W. Century Boulevard Suite 912
Los Angeles, CA 90045

Telephone: (213) 641-3606

Year Founded: 1969

8(a) Status: Certified

Principal Name: George J. Adams

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume: 2,400,000.00

Growth Pattern: Upward

No. Professional Staff: Full-time 25

Part-time 0

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Compliance Testing.....	45
(2) Research & Development.....	29
(3) Robotics.....	15
(4) Architecture & Engineering Services.....	13

Minor Fields:

(1) Manufacturing.....	7
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Facilities: On-Site-- Offices:

Main Office

6151 W. Century, Suite 912
Los Angeles, CA 90045

Proving Ground Research Center

3401 Etiwanda Boulevard
Mira Loma, CA 91752

Fabrication Facility

9220 Atlantic Boulevard
South Gate, CA 90280

Computer Components:

- o Microcomputer, Dynabyte Model 5505A, 64 K
- o CRT Terminal, Zenith Model Z-19
- o Dot Matrix Printer, NEC 100 CPS, Model 8023A
- o Plotter, Houston Model DPM-2, 8½ x 11 surface
- o Microcomputer, TRS-80 Model 1 level 11,48K
- o Disc Drives, TRS 5¼", .2 Mbyte capacity
- o Video Monitor, TRS, 12 in. monochrome.
- o Dot Matrix Printer, TRS line printer 1, 10 to 16.5CP

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Federal Highway Administration, N. O. Clary (202) 755-9370,
L. D. McCollum (202) 755-9370
- o National Highway Traffic Safety Administration, James Auten
(202) 426-2102, Thomas Stafford (202) 426-0607
- o Urban Mass Transportation Authority, John Sulentic (202) 775-4980
- o Fort Belvoir Research and Development Command, Susan Traggerer,
Herb Rothschild (703) 664-4285
- o Toyota Motor Company, LTD., Charles Plemmons (213) 618-4726

Details of Professional Staff:

Name: George J. Adams, P. E.

Degrees: Masters of Business Administration

Years Experience: 35

Fields: Transportation, Mechanical Engineering,
Structural Engineering

Name: Lloyd E. Carlson

Degrees: B. S. Mechanical Engineering

Years Experience: 25

Fields: Transportation, Mechanical Engineering,
Structural Engineering

Name: Joe O'Gorman

Degrees: B.S. Mechanical Engineering

Years Experience: 25

Fields: Transportation, Mechanical Engineering

Name: Leroy Hoover

Degrees: Ph.D. Physics

Years Experience: 30

Fields: Structural Engineering

Single-time Clients:

- o Bureau of the Mines, Steven Swan
- o Boeing Aircraft Company
- o Continental Airlines
- o Hughes Aircraft Company, Julie Lyon (213) 517-5024

Notes:

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 6 (see also)

Company Name: Nero and Associates, Inc.

Address: 520 S.W. Sixth Avenue, Suite 1120
Portland, Oregon 97204

Telephone: (503) 223-4150

Year Founded: 1971

8(a) Status: Certified

Principal Name: David M. Nero, Jr.

Title: Chief Executive Officer

Average Gross Receipts (3 yrs):
Dollar Volume, 1982: \$5.6 million

No. Professional Staff: Full-time 175

Part-time

Capabilities and Experience of Firm:

Major Fields:

	No. of Contracts:
(1) Environmental Impacts (socioeconomic and environmental cost-benefit analyses).....	13

Minor Fields:

(1) Air Quality Analysis.....	8
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Repeat Clients:

- o EPA Region VII (816) 374-3791*
- o EPA (419) 541-3157*
- o EPA QAQPS (919) 541-5522*
- o State of Oregon (503) 229-6459*
- o EPA Region X (206) 442-1980*
- o EPA Region X (206) 442-1125*
- o Department of Transportation, G. McDonald (202) 426-4492*

Facilities: On-Site--

- o 3,000 square feet of office space.
- o IBM-P.C., Digital Word Processors, with communication modem.

Access To--

- o Portland State University Computer.

Single-time Clients:

- o Environmental Instrument Systems (219) 277-5715*
- o Sao Paulo, Brazil, Dr. Fernando Guimares*
- o Lane Regional Air Pollution Control Authority, D. Arkell
(503) 686-7618*
- o CH2M Hill, W. Hansen (503) 224-9190
- o Peeverly J. Hukill, Armand Bell (317) 342-8456*

*Based on a staff member's work performance.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Details of Professional Staff:

Name: Kish J. Sharma, President

Degree: M. Sc., Electrical Engineering; Ph.D. Systems Science

Years Experience: 10

Fields: Energy systems analysis and modeling; electrical power systems generation and reliability planning; coal resources and technology; energy technology and economics; low energy vehicles; technology assessment; forecasting; program planning; materials assessments; agricultural systems; appropriate technology; urban science and policy analysis.

Notes:

- o Varied work in the energy field for the last 10 years; has provided extensive knowledge of energy technology and systems, including their environmental impacts. He also provides technical knowledge for air quality assessment relative to energy development; conducted comparative evaluations of energy technologies and studies of alternative energy futures; assessment of coal-based technologies, electric power generation, supply/demand modeling, energy planning and policy analysis, and net energy analysis. He has authored/co-authored 30 scientific and technical publications.

Name: John E. Core, Manager, Air Quality Group

Degree:

Years Experience: 16

Fields: Air Quality

Notes:

- o Recognized expert in particulate source apportionment, using receptor modeling and chemical mass balance analysis. Developed materials and conducted workshops on receptor modeling; designed and managed aerosol studies for particulate source apportionment; supervised engineers and scientists in technical work to support air pollution problem assessments, control strategy development, plan preparation to meet state and federal requirements. Published 15 papers and invited presentations.

Details of Professional Staff: (Continued)

Name: Robert L. Gay

Degree: Ph.D.

Years Experience: 20

Fields: Scientific and public policy applied research; team assembling and management to assess a wide variety of environmental impacts (air, water, land, noise), mitigation methods and policy issues for public and private sectors.

Notes:

- o Has developed a methodology for quantifying environmental costs and benefits. Directed a study of potential health effects associated with general population exposures to non-ionizing electromagnetic radiations in Multnomah County, Oregon.

Name: Patrick L. Hanrahan

Degree: M.S., Chemistry

Years Experience: 9

Fields: Emission inventory development; dispersion modeling application and computerized storage and processing of air quality data.

Notes:

- o Experience includes extensive PSD dispersion modeling studies of new and expanding point resources, the development and validation of urban airshed (Gaussian and Eulerian) models, point sources, line source and photo-chemical models. His research into emission factor uncertainties, modeling assumptions and meteorological variables led to the completion of major improvements.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 6 (see also 2, 28)

Company Name: Paul Parks and Associates, Inc.

Address: 100 Boylston Street, Suite 815
Boston, MA 02116

Telephone: (617) 415-3688

Year Founded: 1979

3(a) Status: Certified

Principal Name: Paul Parks

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$100,000 to \$250,000

1981: \$100,000 to \$250,000

1980: \$100,000

No. Professional Staff: Full-time 16

Part-time

Capabilities and Experience of Firm:

Major Fields:

(1) Environmental Impacts..... 6

Minor Fields:

(1) Nuclear Engineering Research..... 2
(in area of aeronautical engineering)

Facilities: On-Site--

o Parent company located in Boston, Massachusetts; branch offices at 1518 Whittier St., N.W., Washington, D.C. 20012.

Access To--

²Based on corporate and staff experience.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Boston Water & Sewer Commission, 5 Gens (617) 426-6046
- o Transportation Systems Center, Department of Transportation, R. Raab (617) 494-2072
- o Army Corps of Engineers, Waltham, Mass.

Details of Professional Staff:

Name: Paul Parks

Degree: Professional Engineer

Years Experience: 25+

Fields: Engineering; education; community development.

Name: John O's. Francis

Degree: MBA, Ph.D. (in process) Management, Statistics

Years Experience: 25+

Fields: Analytical statistics; health care administration; management science; economic and statistical quality control; cost benefit analysis.

Single-time Clients:

- o BPSCOM-FMR Properties, R. Taylor (617) 292-6034
- o Westover Air Force Base

Notes:

Selected List of Corporate and Staff Experiences.

o Structural and Civil Engineering

- worked on design of hydroelectric systems
- design and development of power plants
- design of drainage systems (Air Base runways)
- design of major buildings
- developed cost estimates of a variety of projects
- reviewed and coordinated structural engineering concepts in connection with building rehabilitation
- planned and implemented case studies about water intrusion in tunnels for urban mass transit
- analyzed destructive vibration on several buildings due to pile driving operations and on sun screens
- designed and supervised construction of sprinkler system in compliance with existing codes and regulations

o Aeronautical Engineering

- Senior Design Engineer on the development and design of the F8U Crusader
- worked on the design and development of the Regulus Missile (a submarine based missile)
- worked on the design of large jet engines including the J57 and J75 (all magnesium alloy engine)
- worked with a team of seven engineers in Nuclear Engineering research attempting to develop a nuclear jet engine.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 6 (see also 8, 14)

Company Name: Professional Analysts, Inc.

Address: 743 Country Club Road
Eugene, Oregon 97401

Telephone: (503) 485-6877

Year Founded: 1975

8(a) Status: Certified

Principal Name: John Nelson

Title: President

Average Gross Receipts (3 yrs):

Average Dollar Volume, past 3 years: \$896,000

No. Professional Staff: Full-time 10

Part-time (on a consulting basis)

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Environmental Impacts..... 8

Minor Fields:

(1) Statistics..... *

(2) Probabilistic Risk Assessment..... *

Facilities: On-Site--

- o Branch offices at 1015 Broadwater, Billings, MT 59101; and at 315 W. Ponce de Leon, Suite 338, Decatur, GA 30030.
- o Digital Equipment Corporation computers.
- o 4WD vehicles, survey instruments, laboratory equipment, drafting/cartographic instruments, photographic equipment, etc.)

Access To--

*Most contracts have included elements of this field.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o U.S. Forest Service, James Keyser (503) 231-3644
- o Bureau of Land Management, John Cunningham (303) 234-6132

Name: John Nelson

Degree: Ph.D./ABD

Years Experience: 15+

Fields: Project Administration; Socioeconomic research; Planning; Statistics; Computers.

Name: Dr. Bhagwati Poddar

Degree: Ph.D., Sociology

Years Experience: 20

Fields: Sociology; economics; anthropology.

Name: Richard Craven

Degree: M.S., Environmental Science

Years Experience: 7+

Fields: Environmental studies; statistical data analysis; technical report writing.

Name: Richard Kent

Degree: M.S., Geology

Years Experience: 7

Fields: Engineering; geology; energy resources; strip mine geology; power plant siting; right-of-way, hydrogeology; minerals exploration.

Single-time Clients:

- o U.S. Army Corps of Engineers, Jim Mualcahey (916) 440-3400
- o Agency for International Development, Edward H. Thomas (202) 235-8380
- o Bureau of Indian Affairs, Tom Becker (505) 863-9501
- o Northern Natural Gas Company, Robert Moss (402) 691-2364
- o Department of Housing and Urban Development, Leslie Chian (206) 442-5414

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 6 (see also 20, 23, 29)

Company Name: Trans Systems Corporation

Address: 160 Maple Avenue, East
Vienna, VA 22180

Telephone: (703) 281-4498
(703) 281-1500

Year Founded: 1976

8(a) Status: Certified

Principal Name: John C. H. Woo

Title: President

Average Gross Receipts (3 yrs):
Dollar Volume, 1982: \$300,000

No. Professional Staff: Full-time 10

Part-time 6

Capabilities and Experience of Firm:

Major Fields:	No. of Contracts: [*]
(1) Environmental Impacts.....	13

Minor Fields:

(1) Safety Analysis.....	**
(2) Waste Management.....	**
(3) Statistics.....	**
(4) Civil Engineering.....	**
(5) Structural Engineering.....	**
(6) Nuclear Reactor (technical translations).....	1

Facilities: On-Site--

- o Three offices: Two in Vienna, Virginia, with 1800 square feet of office space; and one in Burlington, Massachusetts, with 900 square feet.
- o Electric typewriters and word processing equipment at all sites.

Access To--

- o Computer terminals hooked to Boeing Computer Network, Control Data and PRC Systems.

^{*}A representative sample of number of contracts.

^{**}Based on professional staff fields.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Federal Railroad Administration, F. L. Mayronne (202) 755-9464;
A. Guy (202) 755-9464
- o Federal Highway Administration, A. Argamon (202) 755-9370
- o U.S. Transportation Systems Center, A. A. Tauro (617) 494-2421;
- o Bernard Johnson, Inc., J. Zimmer (301) 493-8400

Details of Professional Staff:

Name: John C. H. Woo, President

Degree: M.S., Industrial Engineering; M.S., Transportation Engineering;
Ph.D. (Candidate) Industrial Engineering

Years Experience: 26

Fields: Systems engineering; computer programming; software design;
human sector and cost-benefit evaluations.

Name: Albert Bebbs

Degree: M.A., Physics

Years Experience: 25

Fields: Nuclear science; research and development; environmental studies;
computer programming.

Name: Barbara Shapiro

Degree: Quantitative Analysis

Years Experience: 8

Fields: Systems analysis; mathematical analysis; cost-benefit analysis.

Name: S. Chowhurdry

Degree: Ph.D., Statistics and Economics

Years Experience: 15

Fields: Computer data base development.

Notes

- o The principals of the firm have over 20 years of professional experience in all phases of systems integration and facility planning, socio-economic and environmental analyses, terminal design and activity network evaluation, and optimization of movement systems. Specialization has also been in requirement surveys, modeling, planning and programming, and data systems management.

Single-time Clients:

- o National Park Service, D. Suttin (202) 724-6781
- o D. C. Department of Housing and Community Development,
R. A. Montgomery (202) 724-8686
- o ORI, Inc., J. Bauchspies (301) 565-4924
- o Transource, Incorporated, J. R. Taylor (201) 994-4520

Notes: (Continued)

- o Trans Systems Corporation and its professional staff capabilities include the following:
 - Nuclear Science and Engineering.
 - Systems Integration and Cost Effectiveness Studies.
 - Socioeconomic and Environmental Analyses.
 - Environmental Data Bank (EDB) Development - Full Range.
 - Quick Response Computer Support Tasks.
 - Computerized Program Evaluation Support.
 - Human Factors Engineering and Evaluation.
 - Traffic and Logistic Network Simulation.
 - Energy Efficiency Evaluation in Transportation.
 - Community Development and Citizen Participation.
 - Compatible Land Use Planning and Economic Development.
 - Integrated Multimodal Transportation Planning.
 - Computer Application - Forecasting and Network Simulations.
 - Public Information Systems and Market Development.
 - Safety, Accident Analyses, Statistical Analyses and Surveys.
 - Communication and Brochure Development.
 - Intermodal Transportation Planning.
 - Electric Vehicle Development.
 - Energy Systems Analysis.
 - Solar Energy Applications.
 - International Environment Data Bank.
 - Users Manual and Systems Manual Preparation.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 6 (see also 2, 11, 29)

Company Name: Urbitran Associates, Inc.

Address: 15 Park Row
New York, N.Y. 10038

Telephone: (212) 267-6310

Year Founded: 1970

8(a) Status: Certified

Principal Name: Robert B. Lee

Title: President

Average Gross Receipts (3 yrs):

Growth Pattern: 60% one-year rate of growth in 1980;
25% in 1981, and 23% in 1982.

No. Professional Staff: Full-time 94

Part-time 20

Capabilities and Experience of Firm:

Major Fields: No. of Contracts:*

(1) Environmental Impacts..... 20

Minor Fields: No. of Contracts:*

(1) Air Quality Measurement and Analysis..... 18

(2) Noise Measurement..... 12

Clients:**

- o New York City Department of Transportation, Sam Shorts (212) 830-7500
- o New York City Department of City Planning, Richard Todd (202) 566-8505
- o City of Newark, N.J., Fernando Rubio (201) 733-8425
- o New Jersey Department of Transportation, Ross Stevenson (609) 292-6302
- o South West Regional Planning Agency (SWRPA), Conn., Richard Carpenter (203) 866-5543

Facilities: On-Site--

- o Regional offices in Washington, DC; Stamford, CT; Los Angeles, CA; Seoul, Korea; San Francisco, CA.
- o Headquarters has about 7,000 square feet of office space.
- o Two micro-computers.

Access To--

- o Mainframe computer.

Clients:** (Continued)

- o Federal Highway Administration, John Fegean (202) 426-9710
- o Urban Mass Transportation Administration, Richard Steinman (202) 426-4004
- o New York State Department of Transportation, John Marino (212) 938-3309

*Partial number of contracts

**Partial list of Clients; and information on whether repeat or single-time clients not available.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Clients:** (Continued)

- o Connecticut Department of Transportation, Jim Byrnes (203) 566-4272
- o World Bank
- o Government of Korea
- o City of Caguas, Puerto Rico
- o St. Croix, U.S. Virgin Islands
- o Plateau State, Nigeria

Details of Professional Staff:

Name: Robert B. Lee, President

Degree: Ph.D., Civil Engineering

Years Experience: 20

Fields: Traffic, transportation, environment.

Name: Nicholas Bellizzi, P.E.

Degree: M.A., Civil Engineering

Years Experience: 10

Fields: Highways.

Name: Paul J. Menaker

Degree: Ph.D., System Engineering

Years Experience: 10

Fields: Transit and Transportation; Environmental Systems.

Name: Tim Miller

Degree: B.S., Environmental Planning

Years Experience: 8

Fields: Environmental Services.

Name: Michael Reviv, P.E.

Degree: B.S., Civil Engineering

Years Experience: 10

Fields: Structural Engineering.

Notes

- o Urbitran has worked with some of the nation's leading consulting firms and A-E organizations, providing specialized professional services under various contractual arrangements.

**Partial list of Clients; and information on whether repeat or single-time clients not available.

Clients:** (Continued)

- o Department of Housing and Urban Development
- o Federal Emergency Management Agency
- o U.S. Army Corps of Engineers
- o New Jersey Transit Corporation
- o New York State Metropolitan Transportation Authority
- o New York State Department of Correctional Services
- o New York City Transit Authority
- o County of Essex, New Jersey
- o County of Middlesex, New Jersey
- o City of Buffalo, New York
- o City of Rochester, New York
- o City of Detroit, Michigan
- o North Hempstead Planning Department
- o Norwalk Transit District
- o City of Stamford, Connecticut
- o Port Authority of New York and New Jersey
- o Tri-State Regional Planning Commission
- o Housatonic Valley Council of Elected Officials (HVCEO) Comm.
- o Southeast Michigan Transportation Authority (SEMTA)
- o Niagara Frontier Transportation Authority
- o New York Convention Center Development Corporation
- o New York State Urban Development Corporation
- o New York City Public Development Corporation
- o Mobil Oil Corporation
- o Consolidated Edison Corporation
- o Brooklyn Union Gas Company
- o BA Capital Corporation
- o Academy of Aeronautics, LaGuardia Airport
- o Chasanoff Organization
- o Equitable Life Assurance Company
- o Lieberman Properties
- o Rouse Corporation
- o Fulton Fish Market Cooperative Corporation
- o Flushing Mall Associates
- o Numerous Citizens' Groups, Attorneys and A-E Firms

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 6 (see also 11, 30)

Company Name: Waste & Water International

Address: 5850 Shellmond Street, Suite 100
Emeryville, California 94608

Telephone: (415) 428-2381

Year Founded: 1978

8(a) Status: Certified

Principal Name: Akhtar Hamid

Title: Board Chairman

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$1.1 million

Growth Pattern: 26% one-year increase in dollar volume in 1981 and
22% in 1982.

No. Professional Staff: Full-time 15

Part-time

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Environmental Impacts.....	4
(2) Environmental Technical Training.....	25
(3) Environmental Systems Evaluations.....	8

Minor Fields:

Facilities: On-Site--

- o 2,900 square feet of office space.
- o Library.
- o Apple II and CompuPro computers.
- o 3 Drafting Stations.

Access To--

²Based on Professional staff's experiences and fields.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o City & County of San Francisco, R. Robinson (415) 431-9430

Details of Professional Staff:

Name: Akhtar Hamid, Principal
Degree: M.S.C.E., Engineering; Ph.D.
Years Experience: 13
Fields: Environmental Engineering

Name: Henry C. Hyde
Degree: M.S.C.E., Sanitary Engineer
Years Experience: 17
Fields: Waste and water management (planning, design, construction and operation of municipal and industrial wastewater systems and water supply facilities).

Name: Peter H. Bellows
Degree: B.S., Civil Engineering; M.S., Sanitary Engineering
Years Experience: 3
Fields: Civil and environmental engineering

Other Professional Staff Fields:

- Civil Engineering (2).
- Water Quality Control Technologist.
- Chemical Engineer.
- Resource Developer.

Single-time Clients:

- o South Bayside System Authority, J. Bewley (415) 591-7121
- o City of Arcata, CA, F. Klopp (707) 822-5951
- o City of Corvallis, OR, T. Gould (503) 686-9915

Notes:

- o Specific experience related to industrial waste includes: development of a cost recovery program for a city; an industrial use ordinance for approximately 1,500 industries; and a program for determining the impact of priority pollutants from industrial, domestic and commercial sources and the wastewater treatment plant processes and receiving waters of the city.
- o Specific experience related to industrial waste control includes: determination of the impact of trace materials and other industrial pollutants on wastewater sludge quality; industrial waste load allocations; survey and monitoring programs; preparing pre-treatment recommendations; and wastewater treatment sludge management and on-site wastewater systems.
- o Examples of staff water studies related experience: water supply master plan for two cities; geohydrologic groundwater studies; and groundwater geohydrology.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 6 (see also 3, 10, 30)

Company Name: Wch Industries, Inc.

Address: 14 Felton Street
Waltham, MA 02154

Telephone: (617) 894-7022

Year Founded: 1978

8(a) Status: Certified

Principal Name: William Clark Harrison

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$320,000

Growth Pattern: 50% one-year rate of growth in 1982;
36% in 1983

No. Professional Staff: Full-time 20

Part-time 23

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Environmental Engineering..... 10

Minor Fields:

Repeat Clients:

- o U.S. Air Force (Hanscom AFB, MA), Peter Caravassos (617) 271-2827
- o Metro Dist. Comm., Boston, MA (via M & E), Dan Donahue (617) 367-4000

Facilities: On-Site--

- o 8,000 square feet of office space.
- o A branch office in Washington, DC (500 square feet).
- o Conference room; library.
- o Fully equipped with electronic office equipment.
- o Drafting equipment.

Access To--

- o Computer terminal.

Single-time Clients

- o MASSPORT (via JHC&A), Steve Davis (617) 890-3737
- o EPA, Boston, MA (via M & E) - tasks on hold
- o EPA Region 4**
- o EP Garrepy Co.**
- o Boston Water & Sewer Comm. (via M & E), James Colantonio (617) 367-4000

**Professional staff experience.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Details of Professional Staff:

Name: John H. Baratta, Vice President/Chief Engineer

Degree: B.S. Civil Engineering; M.S. Work/Sanitary Engineering

Years Experience: 18

Fields: Directing and coordinating planning and design engineering; supervises professional design specialists (architecture, landscape architecture, HVAC, electrical and civil engineering; wastewater treatment, transportation engineering, utility systems, hazardous waste, ocean/harbor/coastal engineering, municipal engineering, water resources and urban design); designing wastewater/sewage/drainage facilities; evaluating pumping stations, and other treatment facilities; cost analysis and administering construction contracts

Name: Sushil K. Batra, Senior Mechanical Engineer

Degree: B.E. Electrical Engineering; S. M. Mechanical Engineering

Years Experience: 29

Fields: Power plant engineering (operation, maintenance and design); 15 years in a large industrial plant with cogeneration; developed and installed a preventive maintenance program and introduced check charts and maintenance schedules; directed wide range of energy related studies including several related to technology, economics and application of boiler systems including alternative fuels; originated the coal-oil mixture combustion demonstration at Salem Harbor Station and was directly involved in the preparation, design and development of the system.

Name: Bruce D. Norian, Senior Facility Engineer

Degree: Electrical Engineering and Aeronautical Engineering Courses

Years Experience: 21

Fields: HVAC analysis; energy use; energy optimization; general operations supervision.

Details of Professional Staff: (Continued)

Name: James H. Johnson, Senior Sanitary Engineer

Degree: M.S., Sanitary Engineering; Ph.D. Applied Science

Years Experience: 15

Fields: Chemical sludge and hazardous material disposal; industrial wastewater surveys; and design and study of wastewater treatment facilities.

Name: Sidney Levin, Senior Safety and Health Engineer

Degree: B.S. Physics; M.S. Work

Years Experience: 31

Fields: Safety and health engineer; radiological safety, hazardous waste management; environmental assessment, control and sampling; Nuclear Regulatory Commission Licensing. Recognized nationally for his knowledge and expertise in the safety aspects of depleted uranium processing.

Notes:

- o Additional Professional Staff Fields
 - Chemical Engineering (2)
 - Civil Engineering (2)
 - Mechanical Engineering (2)
 - Mathematics/Physics
 - Electrical Engineering (2)
 - Physics (2)
 - Sanitary Engineer
 - Work (2)
 - Data Processing Training Specialist
 - Administrative Management
 - Geophysics
 - Economics (2)
 - Theory and Administration
 - Urban and Environment Architect
 - Environmental Engineer (5)
 - Data Base Manager
 - Systems Engineer



Fire Protection

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 7 (see also 2, 6, 29)

Company Name: Bryant Associates

Address: 1420 N Street NW, Suite 100
Washington, D.C. 20005

Telephone: (202) 232-5192 or 5193

Principal Name: Andrew D. Bryant

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$892,000

Growth Pattern: 59% one-year increase in dollar volume in 1981 and 54% in 1982.

Year Founded: 1959

No. Professional Staff: Full-time 16

8(a) Status: Certified

Part-time 4

Capabilities and Experience of Firm:

Facilities: On-Site--

Major Fields:

No. of Contracts:

- o Principal office 2,000 square feet.
- o Branch office in Berkeley, California.

(1) Fire Protection..... 2

Minor Fields:

Access To--

(1) Waste Management..... 5

- o Main frame computer.

(2) Water Chemistry..... 5

(3) Hydrology..... 4

-Based on professional staff's experiences and fields

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Howard University (Dormitory & Library feasibility study),
B. G. Harris (202) 636-7802

Single-time Clients:

Details of Professional Staff:

Name: Andrew D. Bryant, President
Degree: B.A., Architecture
Years Experience: 25
Fields: Architecture

Name: Daniel D. Kim, Vice President
Degree: M.A., Architecture
Years Experience: 16
Fields: Architecture

Name: Galen A. Leek, Vice President
Degree: B.S., Civil Engineering
Years Experience: 30
Fields: Civil Engineering; operations research

Name: Jerry Y. Fujimoto
Degree: B.A., Architecture
Years Experience: 15
Fields: Architecture

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 7 (see also 3, 13)

Company Name: Energy Systems Engineering, Inc.

Address: 10605 Concord Street
Kensington, Maryland 20795

Telephone: (301) 946-6160

Year Founded: January, 1979

8(a) Status: Certified

Principal Name: Jose A. Reig

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$415,000

Growth Pattern: 82% one-year increase in dollar volume in 1981 and
31% in 1982

No. Professional Staff: Full-time 9

Part-time None

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Fire Protection..... 30

Minor Fields:

(1) Nuclear Engineering..... *

Facilities: On-Site--

- o 1800 square feet.
- o Radio Shack TRS-80 computer and energy analysis software

*Based on professional staff's experiences and fields.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o U.S. Navy Facility Engineering Command (Chesapeake Div.),
R. de la Vega (202) 433-4374
- o U.S. Department of the Army (Baltimore District),
F. Timbol (202) 576-3259
- o General Services Administration,
V. Daconov (202) 472-4580

Details of Professional Staff:

Name: Jose A. Reig

Degree: B.S.

Years Experience: 17

Fields: Nuclear Engineering, Mechanical Engineering

Name: Guillermo J. Ramsay

Degree: B.S.

Years Experience: 18

Fields: Electrical Engineer

Name: Udayan Kham

Degree: B.S.

Years Experience: 15

Fields: Electrical Engineer

Single-time Clients:

- o U.S. Navy Facility Engineering Command (Atlantic Division),
G. Heddley (804) 444-9665
- o Department of Justice, H. DeVoe (202) 324-3034
- o Department of Commerce, A. White (301) 921-3825
- o Public Health Service
- o Department of Transportation (U.S. Coast Guard),
T. Clifford (202) 426-1247
- o Architect of the Capital, G. Lukar (202) 225-3350

Notes:

- o Have done testing and design of nuclear reactor fuel assembly
for pressurized water reactors (Babcock and Wilcox)



Geology/Geotechnical Engineering

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 8 (see also 2, 6, 28)

Company Name: Delon Hampton & Associates

Address: 2000 K Street, NW, Suite 300
Washington, DC 20001

Telephone: (202) 293-3666

Year Founded: 1973

8(a) Status: Certified

Principal Name: Delon Hampton

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1983: \$3.4 million

Growth Pattern: 6% avg. increase since 1979

No. Professional Staff: Full-time 80

Part-time -

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Geology/Geotechnical Engineering..... -26

Facilities: On-Site--

- o Offices in Atlanta, Georgia; Chicago, Illinois; Los Angeles, Calif; and Rockville, Maryland (Corporate Headquarters): 15,800 square feet.
- o Computer (Digital PD 11) and Word Processor Equipment

Minor Fields:

Access To--

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Other Clients:

- o Washington Suburban Sanitary Commission

Details of Professional Staff:

Name: Delon Hampton, President
Degree: Ph.D., Civil Engineering
Years Experience: 23
Fields: Geotechnical Engineering.

Name: R. Varadarajan (Rajan), Vice President
Degree: Ph.D., Structural Engineering
Years Experience: 22
Fields: Structural Engineering.

Name: John M. Zimmer
Degree: BCE., Civil Engineering
Years Experience: 19
Fields: Civil Engineering and Transportation

Name: M. G. Menon
Degree: M.S. C.E.
Years Experience: 10
Fields: Structural Engineering

Single-time Clients:

- o Cumberland Gap Tunnel
- o CONRAIL
- o West Virginia Department of Highways
- o Macon-Bibb County Water and Sewage Authority

Notes:

- o Extensive publications and experience in civil and geotechnical engineering; Registered Professional Engineer in 14 states.
- o Registered Professional Engineer.
- o Registered Professional Engineer in 10 states.
- o Registered Professional Engineer in 2 states.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 8 (see also 6, 26, 30)

Company Name: Geo/Resource Consultants
Corporate Headquarters

Address: 1620 Montgomery Street
San Francisco, CA 94111

Telephone: (415) 433-3177

Year Founded: December, 1976

8(a) Status: Certified

Principal Name: Alvin K. Joe, Jr.; R.G., C.E.G.

Title: President and Chief Executive Officer

Average Gross Receipts (3 yrs):
Dollar Volume, 1982: \$900,000 (est.)
Growth Pattern: Will provide

No. Professional Staff: Full-time 30

Part-time 5

Capabilities and Experience of Firm:

Major Fields:

(1) Geology/Geotechnical Engineering..... 38

Minor Fields:

(1) Hydrology..... 18
(of the Geology/
Geotechnical
Engineering
contracts)

Facilities: On-Site--

- o Corporate headquarters is located in San Francisco with four branch offices in Seattle, Washington; Tucson, Arizona; and Washington, D.C.
- o Maintains its soil testing laboratory at its San Francisco and Tucson offices; has its own geophysical equipment and downhole shear wave hammer, and maintains a pool of field equipped vehicles for exploration and field testing purposes.
- o In addition, equipped with computer for word processing and slope design, and has recently developed its own Earthquake Data Bank.
- o Utilizes a portable video camera and video cassette recorder (VCR) for geologic/geotechnical field reconnaissance and documentation and for in-house corporate training programs.

Access To

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:*

- o East Bay Municipal Utilities District, S. Wason, (415) 932-1710;
J. Bischoff (415) 945-3000
- o Office of the State Architect, Sacramento, CA,
J. Chan (916) 322-0385
Cienega Corporation, R. Patrick (602) 747-8600
- o Southern California Rapid Transit District,
H. Spellman (213) 795-0461

Details of Professional Staff:

Name: Alvin K. Joe, Jr., President

Degree: B.S.

Years Experience: 13

Fields: Geology.

Name: Bruce Auld

Degree: M.A.

Years Experience: 17

Fields: Geophysics.

Name: Alan D. Tryhorn, Vice President/Chief Geologist

Degree: B. A.

Years Experience: 11

Fields: Geology.

Name: Fred Chen

Degree: M.S.

Years Experience: 18

Fields: Civil Engineering.

Single-time Clients:*

- o Donner Summit Public Utilities District,
R. Dewante (916) 447-3261
- o Continental Development Co., H. Taylor (415) 543-8422
- o U.S. Forest Service, J. Chotian (415) 556-0122
- o City of Berkeley, C. Park (415) 526-6432
- o USDA Forest Service, G. Zitney (415) 883-6425
- o South Tahoe Public Utility District, R. Perisho (916) 366-1701
- o Seattle Metro, L. Sullivan (206) 623-6000
- o Montgomery Land co., J. Ma (415) 398-3154
- o U.S. Army, D. Kroft (415) 982-8338
- o National Maritime Union, G. Craft (415) 772-7066
- o U.S. Bureau of Land Management, Butte, Montana; Cliff Fanning
- o San Francisco Municipal Railway, P. Q. Chin (415) 495-7010
- o California Water Quality Board, R. Ott (916) 244-1920

Notes:

- o GRC is a member of the Consulting Engineers Association of California, Association of Soil and Foundation Engineers, Society of American Military Engineers, Soil and Foundation Engineers Association, Asian American Architects and Engineers, and the Association of Minority Consultants. Our professionals regularly publish and present technical papers and are actively involved in the ASCE, AEC, SEG society of Mining Engineers, and the Geological Society of America.
- o The firm's primary expertise lies in the diversified geologic and geotechnical engineering backgrounds of its key professionals. GRC's professional staff has been involved in many geotechnical studies concerning regional geologic and seismic hazards mapping, sedimentation and erosion studies in both inland and coastal areas, stream scour studies across bridge crossings, siting studies for buildings, land-slide classification mapping, pipelines, tunnels, the rehabilitation of historic landmark structures, and dam safety analyses. In addition, GRC's staff has been involved in numerous coastal EIRs, dam and reservoir studies, regional geoplanning studies, landfill engineering studies, hydro site feasibility studies, subways, transmission line and pipeline right of way studies, acid mine drainage studies, economic geologic studies of rock and gravel quarries, geotechnical studies for co-generation power facilities, and hazardous waste investigations of hydrocarbon contaminated sites and hydrogeologic studies of groundwater basins.

*A representative sample of clients.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 8 (see also 3, 4)

Company Name: Infotec Development Incorporated
Address: 3505 Cadillac Avenue, Bldg. M
Costa Mesa, CA 92626

Telephone: (714) 241-8254

Year Founded: September, 1978

8(a) Status: Certified

Principal Name: J. Fernando Niebla
Title: President

Average Gross Receipts (3 yrs):
Dollar Volume, 1983: \$6 Million
Growth Pattern: 77% one-year increase
in dollar volume in
1981; 50% increase in
1983; 25% increase in
1983

No. Professional Staff: Full-time 102
Part-time 10

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

- | | |
|---|----------|
| (1) Electrical Engineering..... | Numerous |
| - Satellite Operations | |
| - Communications Command | |
| (2) Electronics Engineering..... | Numerous |
| - Computer Systems Engineering | |
| (3) Geology/Geotechnical Engineering..... | Numerous |
| - Earth Sciences | |
| - Archaeology | |
| - Cartography | |

Facilities: On-Site--

- o Headquarters consisting of 12,500 square feet of office space, including digital, photography, computer and catography laboratories.
- o TOP SECRET cleared.
- o Field operation offices for the Systems Division located in Sunnyvale, CA (2,000 sq. ft.); Salt Lake City, UT (6,000 sq. ft) Colorado Springs, CO (1,000 sq. ft); Portland, OR (4,000 sq. ft); Washington, D.C. (500 sq. ft.)
- o A field office for the Earth Sciences Divisions located in Sonora, CA (6,000 sq. ft.)
- o VAX 11-780, VAX 11-750, PDP 11-23, HP-3000, two HP-1000's, IBM System 36, thirteen Televideo microprocessors, one Zenith 2400 microprocessors, three Kaypro microprocessors.

Repeat Clients:

- o U.S. Geological Survey
- o National Oceanic & Atmospheric Administration,
H. McClure (301) 763-8064
- o U.S. Navy
- o IBM (Gaithersburg, MD), Mark O'Hara (301) 840-6962
- o U.S. Air Force Satellite Control Center
- o U.S. Air Force (Hill Air Force Base, AFLC),
Bill Bankhead (801) 777-4694
- o Bonneville Power Administration, D. Berkey (503) 230-3606

Access to --

- o IBM 434 computer system (on line) for scientific simulations and data analysis.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Single Time Clients:

- o National Park Service, B.
- o CAITRANS
- o U.S. Forest Service
- o U.S. Fish & Wildlife Service
- o Defense Mapping Agency

Details of Professional Staff:

Name: Thomas D. Taverney

Degree: M.S., Systems Management; B.S., Astronautical Engineering

Years Experience: 14

Fields: Preliminary design of Spacecraft, space systems operations, man-machine interface definition, launch operations, orbital analysis, software development and configuration control, systems engineering and methodology development.

Name: Douglas L. Smith

Years Experience: 24

Fields: Communications, Command, Control and Intelligence (C³I) system design and development, satellite design, development with specialized skills in design, man-machine, training, security, cost/schedule management, logistics, and systems engineering.

Details of Professional Staff: (continued)

Name: C. Chris Schneider, Ph.D.

Degree: Ph.D., Engineering

Years Experience: 17

Fields: Space System Engineering, Mission Planning/Orbital Analysis Attitude Dynamics/Control, Software Engineering, Project Management.

Name: John R. Carlyle

Degree: B.S., Physics

Years Experience: 19

Fields: Large Scale engineering data storage and retrieval systems analysis, design, programming integration, user training, communication system design and programming, computer facilities planning and operations management; management of real-time radar and sonar systems software development, configuration control, and quality assurance, integration facilities operation.

o Number of Personnel by Discipline:

- Aeronautical Engineers (2)
- Programmers (38)
- Electrical Engineers (15)
- Physicists (2)
- Electronic Design Engineers (3)
- Software Engineer (2)
- Astronautical Engineer (3)
- Senior Archaeologist (6)
- Cartographers (4)

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 8 (see also 2, 6)

Company Name: Meriji Resource Consultants

Address: 940 North 400 East
P.O. Box 267
North Salt Lake, Utah 84054

Telephone: (801) 298-2401

Year Founded: 1977

8(a) Status: Certified

Principal Name: Tom N. Hori

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, \$850,000 annually

Growth Pattern: Leveled off after early peak;
holding steady last two years.

No. Professional Staff: Full-time: 9

Part-time: 6

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Geology/Geotechnical Engineering..... 42

Minor Fields:

No. of Contracts:

(1) Geophysical Survey and Interpretation..... 17

(2) Mining and Mineralogy..... 11

(3) Environmental Assessment..... 1

(4) Rehabilitation of Buildings, Structures,
Facilities..... 2

(5) Geological Mapping and Sampling Plain
Studies..... 1

Facilities: On-Site--

o Data General Eclipse S/250 computer,
512 K byte memory; 190 megabyte disk,
800/1600 BPI 9 track tape drive; digital plotter,
line printer, 4 Tektronix graphics terminals with
high resolution digitizing tablets.

o Drafting services; typing; related editing.

Access To--

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o U.S. Geological Survey, R. H. Klauk (801) 581-6831
- o U.S. Forest Service, L. Wiese (801) 625-5213
- o Bendix Field Engineering Corp., C. B. Inberg (303) 242-8621
- o Community Services Administration, R. C. Babel (202) 632-6520
- o Tundra Mines, Ltd., B. Daffron (505) 268-5080
- o U.S. Bureau of Reclamation, M. Heiner (801) 524-5359
- o U.S. Department of the Interior
- o Exxon Minerals Co., USA, R. A. Sultreach (303) 789-7757
- o Chevron Resources Company, C. M. Swift (303) 857-2700

Single-time Clients:

- o Kayser Engineers, Inc.
- o Bureau of Land Management, J. Cunningham (303) 234-5437
- o Ronald Willden (801) 942-6977
- o Magnum Resources, Inc., R. R. Robinson (801) 266-8576
- o Dresser Industries, Inc., R. S. Banitt (702) 738-8411
- o U.S. Department of the Navy, A. Kaprenstein (619) 939-3411
- o MINCON
- o Fishlake National Forest, D. K. Allan (801) 896-4491
- o Ute Indian Tribe/DOE, J. Cutch (801) 722-5141

Details of Professional Staff:

Name: Tom N. Hori, President

Degrees: Business Management Graduate

Years Experience: 13

Fields: Marketing; Administration; Finance.

Name: Richard C. Fox, Senior Manager

Degrees: B.S., Geology; M.S., Geophysics

Years Experience: 16+

Fields: Geology; geophysics; application of geophysical techniques in exploration programs.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: B (see also 6, 14)

Company Name: Professional Analysts, Inc.

Address: 743 Country Club Road
Eugene, Oregon 97401

Telephone: (503) 485-6877

Year Founded: 1975

8(a) Status: Certified

Principal Name: John Nelson

Title: President

Average Gross Receipts (3 yrs):

Average Dollar Volume, past 3 years: \$896,000

No. Professional Staff: Full-time 10

Part-time (on a consulting basis)

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Geology/Geotechnical Engineering..... 4

Minor Fields:

(1) Statistics..... *

(2) Probabilistic Risk Assessment..... *

Facilities: On-Site--

- o Branch offices at 1015 Broadwater, Billings, MT 59101; and at 315 W. Ponce de Leon, Suite 338, Decatur, GA 30030.
- o Digital Equipment Corporation computers.
- o 4WD vehicles, survey instruments, laboratory equipment, drafting/cartographic instruments, photographic equipment, etc.)

Access To--

*Most contracts have included elements of this field.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Bureau of Land Management, John Cunningham (303) 234-6132
- o Beak Consultants, Perry Campbell (503) 248-9507

Single-time Clients:

- o Hill County Electric Cooperative, John McChane

Details of Professional Staff:

Name: John Nelson

Degree: Ph.D./ABD

Years Experience: 15+

Fields: Project Administration; Socioeconomic research; Planning;
Statistics; Computers.

Name: Dr. Bhagwati Poddar

Degree: Ph.D., Sociology

Years Experience: 20

Fields: Sociology; economics; anthropology.

Name: Richard Craven

Degree: M.S., Environmental Science

Years Experience: 7+

Fields: Environmental studies; statistical data analysis; technical
report writing.

Name: Richard Kent

Degree: M.S., Geology

Years Experience: 7

Fields: Engineering; geology; energy resources; strip mine geology;
power plant siting; right-of-way, hydrogeology; minerals
exploration.



Health Physics

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 9 (see also 27, 29)

Company Name: Automation Counselors, Inc.

Address: 5728 Industry Lane
P.O. Box 511
Frederick, Maryland 21701

Telephone: (301) 663-3700
(301) 428-2228

Year Founded: 1970

8(a) Status: Certified

Principal Name: Rosa Benitez

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$600,000

Average Annual Growth Rate: 30%

Growth Pattern: 50% one-year increase in dollar volume in 1982

No. Professional Staff: Full-time 20

Part-time 4

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:^{*}

(1) Health Physics (Data Processing Support)/
Statistics.....2

Facilities: On-Site--

- o 7,400 square feet of office space (2,000 subleased) of modern brick office building includes corporate, management, technical and computer facilities.
- o IBM System 36.
- o Several IBM - PCS.

Minor Fields:

Access To--

*Over one hundred other clients have been provided, in technical areas not relevant to NRC's indicated needs, (technical assistance in software development, system deficiency evaluations; and management, ranging from needs assessment to staff training).

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

o Naval Medical Research Institute, Dr. Matthews (202) 295-1121

Details of Professional Staff:

Name: Ross Benitez

Degree: B.A., Education

Years Experience: 22

Fields: Data processing.

Name: Susan Benitez

Degree: Undergraduate work, Mathematics

Years Experience: 22

Fields: Data processing; programming systems development (financial).

Single-time Clients:

None

Notes:

- o Provides data processing services to private industry and government agencies.
- o Applies personalized computer consulting and software services to improve the operations of both large and small clients.
- o Four divisions:
 - Local government -- providing state, county and city entities with a broad range of ADP consulting capabilities.
 - Scientific systems -- offering computer science and consulting skills to support professional staff.
 - Information Services Division -- providing for the information dissemination needs of governmental agencies.
 - Management Information Systems Division -- consulting to meet applications systems requirements.



Huma Factors Engineering

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 10 (see also 6, 19, 20)

Company Name: Engineering & Economics Research, Inc.

Address: 1951 Kidwell Drive
Vienna, VA 22180

Telephone: (703) 893-8600

Principal Name: Harpal S. Dhillon

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: No information

Growth Pattern: 68% one-year growth rate in 1981;
42% in 1982; and 59% in 1983

No. Professional Staff: Full-time 110

Part-time 8

Year Founded: 1979

8(a) Status: Certified

Capabilities and Experience of Firm:

Facilities: On-Site--

Major Fields:

No. of Contracts:

(1) Human Factors Engineering..... 3

- o Maintains two locations with executive offices, professional staff and business offices, library, meeting facilities.
- o Prime 750 computer which contains a core memory of 2 million bytes, disk space of 300 megabytes, and a tape drive backup, 12 IBM personal computers, a Wang 2200, an Osborne and a Dynabyte DB8/2 computer.
- o The prime supports 6 TAB terminals, a high speed Printomex 600 line printer; and a Zeta color graphics plotter. At maximum configuration the computer will support 128 terminals.

Access To--

- o Has available two remote terminals with access to PRCS time-sharing mainframe (IBM 360/91).

Minor Fields:

(1) Reliability..... 4
(2) Safety Analysis..... 3

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o National Aeronautics and Space Administration,
J. Gitelman (301) 344-6488
- o Federal Aviation Administration, G. Booth (202) 426-3560

Details of Professional Staff:

Name: Harpal S. Dhillon, President

Degree: Ph.D., Industrial Engineering and Operations Research

Years Experience:

Fields: Systems analysis and design; mathematical programming; strategic, technological and economic evaluation of programs for energy, resources and environment; cost/benefit analysis; production planning and control; statistics and quality control; and computer applications.

Name: Jai N. Gupta, Executive Vice President

Degree: M.Sc. Electrical Engineering; M.B.A. Business Finance;

Ph.D. Communications Image Processing and Pattern Recognition

Years Experience:

Fields: Aerospace and energy systems.

Name: Morris N. Gunzburg, Vice President

Degree: B.S. Electrical Engineering

Years Experience:

Fields: Product planning and evaluation; corporate management; planning and marketing.

Name: George M. Frederickson, Senior Analyst

Degree: B.A.E. Aeronautical Engineering

Years Experience:

Fields: Systems engineering and analysis; software consultation and programming in applications, including on-line data bases, real time tracking and commanding, weapon system data processing and scientific programming.

Single-time Clients:

- o National Science Foundation

Notes:

- o Additional Staff Expertise:

- Human Resource Development
- Space Physics
- Electrical Communications
- Automatic Speech Recognition
- Man-Machine Interaction
- Mathematical Statistics
- Aerospace and Data Systems
- Transportation Systems
- Upper Atmosphere Research Satellite (UARS) Computer Support
- Industrial Administration
- Energy and Environmental Systems
- Civil Engineering
- Solid State Science
- Mechanical Engineering
- Qualitative Evaluations and Policy Analysis
- Chemical Engineering
- Analytical Chemistry

- o Staff has provided diversified professional services to a number of clients, which include private domestic and foreign firms, federal agencies, national laboratories, and state and foreign governments.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 10 (see also 27)

Company Name: Evaluation Technologies Incorporated (ETI)

Address: 2020 N. 14th Street, Sixth Floor
Arlington, VA 22201

Telephone: (703) 525-5818

Year Founded: 1980

8(a) Status: Certified

Principal Name: Lawyer A. Martin

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1983: \$5 Million

Growth Pattern: Steady for the past 4 years

1980: \$2 Million; 1981: 3 Million; 1982: \$4 Million

No. Professional Staff: Full-time 175

Part-time 20

Capabilities and Experience of Firm

Major Fields:

(*) Human Factors Engineering..... 2

Minor Fields:

(1) Facilities Management..... 6

(2) Information Support..... 6

Facilities: On-Site--

o Headquarters consist of 10,000 square feet of office space, housing corporate, management and finance offices, project teams and ETIS word processing, editorial and graphics departments. There is an in-house Jacquard J100 shared logic minicomputer capable of supporting a wide variety of peripherals, i.e., satellite CRT terminals, printers and disk and tape drives.

Access To--

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

Single-time Clients:

- o Federal Aviation Administration, Kenneth Geisinger (202) 426-3420
- o U.S. Army Training Support Center, C. Canjan (804) 878-5066

Details of Professional Staff:

Notes:

Name: Lawyer A. Martin, President
Degree: SCMP, Harvard Business School
Years Experience: 21
Fields: Data Processing, Business Management

- o Specializes in the design, development, and implementation of information systems, computer feasibility studies and long range ADP planning. Has directed a study for the Agency for International Development (AID) to determine the requirements for computer terminals and operated for AID their IBM 370 and related peripheral equipment. Has managed and operated a mini-computer facility for the Department of Agriculture, a telecommunications center for the Department of Energy's headquarters, and provided library scientist and technicians in operations of NASA's Scientific and Technical Information Clearinghouse.

Name: Michael E. Cohen, Vice President for Professional Services
Degree: B.S., Electrical Engineering
Years Experience: 15
Fields: Research; Evaluation; Training.

Name: William W. Walker, Vice President for Technical Operations
Degree: M.B.A.
Years Experience: 10
Fields: Management, Marketing, Administration

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 10 (see also 10)

Company Name: Lund, Inc.

Address: 3 Westchester Plaza
Elmsford, New York 10523

Telephone: (914) 347-5575

Year Founded: 1979

8(a) Status: Certified

Principal Name: Linda O. Lund

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$450,000; 1983: \$975,000

Growth Pattern: 40% one-year increase in dollar volume in 1981;
44% in 1982; 100% in 1983.

No. Professional Staff: Full-time 22

Part-time 1

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:*

(1) Human Factors Engineering..... 6

Facilities: On-Site--

- o 15 miles north of New York City.
- o Appropriate equipment for processing secret or classified information and materials.
- o Sophisticated commercial printing facilities, including high-quality offset capability on reduced or enlarged format.
- o In-house library with latest NUREGS, industry reference materials; journals, government manuals; and multi-industry and military references, standards and periodicals.
- o Professional photographer and in-house graphic capability.
- o Video recording equipment.

*A Representative number of contracts

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:*

- c Public Service Electric & Gas, B. Edmonds (609) 935-8560
- o Boston Edison, E. Haddad (617) 424-3233
- o EBASCO, D. Price (212) 839-3608
- c So. Calif. Edison (213) 572-1212
- o Duke Power, Lloyd Schmid (704) 373-8416
- o Rochester Gas and Electric, C. Mambretti (716) 724-8071

Details of Professional Staff:

Name: Linda O. Lund, President

Degree: Ph.D. (candidate) Technology Management & Human Factors

Years Experience: 11

Fields: Human factors and operational concerns in nuclear power plants; human performance models; human factors upgrade programs for nuclear power plants; Instructor Development Program on emergency operating procedures; nuclear, electrical and electronic standardization

Name: Gregory J. Opetosky, Director, Division of Human Factors Engineering

Degree: M.S., Electrical Engineering

Years Experience: 6

Fields: Analysis of maintenance personnel operations at fossil stations; human factor to nuclear power plant control rooms; analysis of man-computer interfaces such as the Safety Parameter Display System.

Name: Marcus Greenberg, Department Head -- Human Factors Engineering

Degree: B.S. Mechanical Engineering

Year Experience: 40

Fields: Human factors in control room design reviews; emergency operating procedures reviews and upgrades; nuclear and radwaste handling and disposal systems.

Name: Tony Brown, Human Factor Engineering

Degree: B.S., Psychology

Years Experience: 2

Fields: Public Power Supply System's Control Room survey and assessment; measured reading speed under several printing options (micro-computer).

*A Representative sample of clients

Single-time Clients:

- o Department of Energy/Oak Ridge National Laboratory

Notes:

- o Other Professional Staff Fields:

- Human Factors Engineering.
- Mechanical Engineering.
- Electrical Engineering.
- Training specialist (2).

- o Additional F .m Expertise:

- Presented seminars to the Nuclear Regulatory Commission Human Factors Safety Division on "A Wholistic Approach to Human Performance Error" and "Use of Task Analysis in Nuclear Power Plants."
- Provided a basis for sections of NUREG/CR-2587: "Functions and Operations of Nuclear Power Plant Control Rooms."
- Completed services tasks including: human reliability data analysis and analyses and comment on NUREG/CR-1278, "Handbook of Human Reliability analysis with emphasis on Nuclear Power Plant Applications."

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 10 (see also 19, 24)

Company Name: The Maxima Corporation

Address: 7315 Wisconsin Avenue, Suite 900 North Building
Bethesda, MD 20814

Telephone: (301) 652-6366

Year Founded: 1978

8(a) Status: Certified

Principal Name: Kurt Snapper

Title: Corporate Vice President

Average Gross Receipts (3 yrs):

Growth Pattern: In 5 years, staff grew from 5 to 300.

No. Professional Staff: Full-time 300

Part-time

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

- | | |
|--|---|
| (1) Human Error Analysis/Prediction..... | 4 |
| (2) Decision Aids/AI Technology..... | 5 |

Facilities: On-Site--

- o Computer Center with: HP1000 minicomputer; ARTEMIS software with color graphics display capability; computer-aided design programs.
- o Safeguarding procedures approved for storage of SECRET materials.
- o Training center (AV).
- o Reference library.
- o Word processing, photo reproduction and binding facilities.
- o Full-time courier service.
- o Survey operations center with toll-free lines.

Minor Fields

No. of Contracts:

- | | |
|--|---|
| (3) Manpower/Training Programs Design..... | 1 |
| (4) Psychological Scaling & Testing..... | 2 |

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

o U.S. Navy/Surface Weapons Center

Single-time Clients:

o U.S. Nuclear Regulatory Commission
o U.S. Army (ARI)

Details of Professional Staff:

Notes: Key staff hold Q and DOD clearances.

Name: Kurt J. Snapper

Degree: Ph.D. Decision Theory (Experimental Psychology)

Years Experience: 10

Fields: Bayesian statistics; probabilistic inference; utility and decision analysis; human factors; safeguards and security; environmental decision making

Name: William G. Stillwell

Degree: Ph.D. Psychology (Quantitative)

Years Experience: 7 (2 post-doctorate)

Fields: Decision analysis; risk analysis; game theory; utility analysis.

Name: David A. Seaver

Degree: Ph.D. Mathematical Psychology

Years Experience: (4 post-doctorate)

Fields: Evaluation methodology; decision-theory; policy analysis; risk analysis; human factors.

Name: Donald G. Jacobs

Degree: Ph.D. Agronomy

Years Experience: 25

Fields: Assessment of environmental impacts of energy production; management of nuclear waste; environmental health; health physics.

12

!

Hydrology

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: II (see also 2, 3, 28)

Company Name: Avila Associates Inc.

Address: 6650 N. Northwest Highway, Suite 202
Chicago, Illinois 60631

Telephone: (312) 763-6570

Year Founded: 1975

8(a) Status: Certified

Principal Name: Manuel Frank Avila

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$130,000

Growth Pattern: After a period of minimal change, since 1979,
there was a 31% one-year increase in dollar
volume in 1982.

No. Professional Staff: Full-time 5

Part-time

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Hydrology..... 7

Facilities: On-Site--

- o 400 square feet storage area for equipment.
- o 400 square feet for office area.
- o Atari 800 48K (use computers for civil, structural and electrical designs).

Access To--

- o Another firm's IBM 370 on contractual basis.

Repeat Clients:

- o Illinois Department of Transportation
- o CBS Group Engineers, Inc., A. E. Bredt (312) 297-0400)
- o Homer L. Chastain & Associates, W. A. Frick (217) 422-8544
- o Illinois Institute of Technology, L. E. Rafter (312) 567-4707

Details of Professional Staff:

Name: Manuel Frank Avila, P.E.
Degree: B.S.; B.S.
Years Experience: 15
Fields: Civil Engineering; Finance

Name: Robert O. Wesnick
Degree: B.S.
Years Experience: 23
Fields: Civil Engineering

Name: Alfred Bustamonte
Degree: B.S.
Years Experience: 15
Fields: Mechanical Engineering

Name: Francisco Brana Bulero
Degree: Ph.D.
Years Experience:
Fields: Chemical Engineer; Operations Research & Energy Management

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Single-time Clients:

- o Illinois Dept. of Transportation (District #1, 5)
- o U.S. Army Corps of Engineers
- o Department of Public Works (Chicago), H. Ecale (312) 744-3591

Notes:

- o Has designed, completed analysis and review of safety related nuclear power pipe supports, etc. Extensive background in FORTRAN which has been used in design projects.
- o Expertise in piping systems design, pressure vessel design, ventilating, air conditioning and machine design.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 11 (see also 6, 31)

Company Name: Cor, Inc.

Address: 105 N. Virginia Avenue
Falls Church, Virginia 22046

Telephone: (703) 534-0011

Year Founded: 1979

8(a) Status: Certified

Principal Name: Pham Chopra

Title: President

Average Gross Receipts (3 yrs):
May be obtained through Dun & Bradstreet, Inc. in
Allentown, PA

No. Professional Staff: Full-time 65

Part-time 2

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Hydrology..... 1

Minor Fields:

(1) Nuclear Engineering..... *

(2) Nuclear Reactor..... *

(3) Solar Heating and Cooling..... 1

(4) Energy Management Support..... 1

(5) Engineering Support Services..... 10

Facilities: On-Site--

- o 12,000 square feet of program office space (in Falls Church).
- o Four operations centers (Lexington Park, Maryland; King George, Virginia; San Diego, California; Sierra Vista, Arizona).
- o Branches and field offices in four states.
- o Large and small conference rooms.
- o Xerox copiers and telecopiers.
- o IBM System 36 minicomputer.
- o Three Intertec "Superbrain" microcomputers with Word Processing and other software.
- o DTI terminal.
- o Other equipment.

*Based on experience and education of professional staff.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o U.S. Coast Guard, Richard Spencer
- o Argonne National Laboratory, Department of Energy, Nancy Duncan, ANL
- o U.S. Army Coastal Engineering Research Center Mary Wrenn, CERC
- o Naval Surface Weapon Center, White Oak Lab, Dennis Hunt, NSWC

Details of Professional Staff:

Name: Pham Chopra, President

Degree: PhD (Studies Toward), M.S.E.,
Naval Architecture and Marine Engineering

Years Experience: 17

Fields: Engineering Management, Hydrodynamics

Notes:

- o Over 17 years of progressive engineering management, consulting and research experience. Expertise in the fields of hydrodynamics oceans systems, design ship systems engineering, and sonar systems. Conducted floating nuclear power plant study for Con Edison, major wave force studies, systems design of SPRUANCE CLASS destroyers and diversified R & D projects.

Name: Prem Chopra, Vice President

Degree: PhD, Structural Mechanics

Years Experience: 10

Fields: Nuclear Structures and Design.

Notes:

- o Mr. Chopra has 10 years progressive experience in the area of nuclear (structural thermo-mechanical analysis); reactor system design (concrete vessel and steel liner; the reactor core; the core support structures, fuel handling systems; the control rods and drives system, the reactor cooling system and top closures); analysis and design of upgrade fuel elements for modified TREAT reactor. Also directed a technical team

Single-time Clients:

Details of Professional Staff: (Continued - Prem Chopra)

which refined the STF Reactor Concept and prepared cost elements and schedules. In another assignment was responsible for structural and mechanical analysis of fuel elements and components of the core, the reactor and the steam generation plant.

Name: H. Lawrence Dyer

Degree: PhD (Course work completed) M.S.M.E.

Years Experience: 12

Fields: Energy and Environmental Studies

Notes:

- o Progressive research and management experience in the energy and environmental fields specially regulatory issues. Computer simulation modeling; system component studies for nuclear power, was program director for Reactor Engineering reaction-kinetic studies.

Name: C. A. McComber

Degree: B.A., Business Administration

Years Experience: 24

Fields: Project Management, Computer Systems and Operation

Notes:

- o Extensive project management and management consulting experience for defense agencies and industry. Expertise in organizational, operational and financial planning and quality control of software heavy engineering systems; monitoring and evaluation of performance and productivity improvement.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 11 (see also 2, 6)

Company Name: Enviroscience, Inc.

Address: 2621 East Hennepin Avenue
Minneapolis, MN 55413

Telephone: (612) 379-7242

Year Founded: September, 1979

8(a) Status: Certified

Principal Name: K. Dennis Kim

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$275,000
1981: \$180,000
1980: \$ 56,000

No. Professional Staff: Full-time 11

Part-time -

Capabilities and Experience of Firm:

Facilities: On-Site--

o Data retrieval and word processing capabilities.

Access To--

o University of Minnesota Computer Center.
o Use of CRAY IA; CDC CYBER; DEC-VAX; Xerox 9700
computers for Water Resources Engineering.

Major Fields: No. of Contracts:

(1) Hydrology..... 16

Minor Fields:

(1) Waste Management..... 5

(2) Geotechnical Engineering..... 3

(3) Structural Engineering..... 9

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o U.S. Army Corps of Engineers, Kent Penderson (612) 725-5904

Details of Professional Staff:

Name: Isaac Yomtovian, P.E.

Degree: M.S., Water Resources/Civil Engineering; Ph.D. Coursework
Waste Management/Agricultural Engineering

Years Experience: 12+

Fields: Water resources; hydrology; hydraulic; computer models.

Name: K. Dennis Kim, P.E.

Degree: M.S., Fluid Mechanics; Ph.D., Hydraulics/Water Resources

Years Experience: 10+

Fields: Hydraulic and hydrologic models; water resources; computer models.

Name: Ruben F. Yomtovian

Degree: M.S., Computer Science; Graduate Work, Management
Information System

Years Experience: 15+

Fields: Computer Science; systems analyst; microprogrammer; field service engineering.

Single-time Clients:

- o Coon Creek Watershed District, Melvin Schulte (612) 755-9901
- o Tolz, King, Duvall, Anderson & Assoc. - I. E.
- o DeWild, Grant, Reckert & Assoc., Co.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: II (See also 2, 30)

Company Name: Geo-Technical Services, Inc.

Address: 851 South 19th Street
Harrisburg, PA 17104

Telephone: (717) 236-3007

Year Founded: 1959

8(a) Status: Certified

Principal Name: James Diaz, REG

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$200,000-\$500,000

Growth Pattern: Fees in same range for past 5 years.

No. Professional Staff: Full-time 28

Part-time

Capabilities and Experience of Firm:

Facilities: On-Site--

Major Fields:

No. of Contracts:

Planning and costing for all of the following:

- | | |
|--|----|
| (1) Inventory of surface and groundwater resources.. | 5 |
| (2) Flood control and storm water management..... | 8 |
| (3) Water supply..... | 4 |
| (4) Acid mine drainage abatement..... | 4 |
| (5) Environmental and engineering geology
investigations..... | 5 |
| (6) Monitoring and analysis of watershed problems... | 10 |

- o Laboratory.
- o Computer room.
- o Engineering and drafting facilities.
- o Surveying and mapping equipment.
- o Field sampling and recording devices.

Minor Fields:

- | | |
|-------------------------------|---|
| (1) Hydraulic structures..... | 4 |
|-------------------------------|---|

Access To--

- o Control Data Corporation Time-Sharing.
- o Boeing Computer Services Time-Sharing.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Pennsylvania Department of Environmental Resources,
N. Batcheler (717) 787-7668
- o Chester County Water Resources Authority,
D. C. Yaeck (215) 692-7878
- o U.S. Army Corps of Engineers, G. Oberman (Norfolk District)
- o New Garden Township Board of Supervisors,
T. Kelleher (215) 268-2915

Details of Professional Staff:

Name: James Diaz, REG

Degree: B.S., Geology

Years Experience: 30

Fields: Administrative management, engineering geology, environmental geology, geotechnical investigation, hydrologic investigation, land use planning, structural foundation design.

Name: Gideon Yachin, P.E.

Degree: M.S., Civil Engineering

Years Experience: 27

Fields: Feasibility studies and economic analysis, hydrologic inventories, hydraulics, waste treatment and drainage studies, storm water management, soils engineering.

Name: Frank H. Pearson

Degree: M.S., Water Resources; Ph.D., Civil Engineering

Years Experience: 9

Fields: Laboratory management, acid mine drainage, computer modeling, laboratory-scale and pilot-scale treatment plants, sanitary engineering, pollution control.

Name: Thomas A. Graupensperger

Degree: B.S., Environmental Resources Management

Years Experience: 6

Fields: Design, construction and operation of surface and groundwater stations, statistical analysis and computer programming, energy conservation surveys.

Single-time Clients:

- o Federal Emergency Management Agency
- o Pennsylvania Department of General Services,
R. A. Dietrich (717) 787-5337
- o Adams County Board of Commissioners

Notes:

The 28 professionals are divided as follows:

Administration.....	1
Architecture.....	1
Civil-Engineering.....	4
Construction Inspection.....	1
Drafting.....	5
Ecology.....	1
Economics.....	1
Electrical Engineering.....	1
Geology.....	2
Hydrology.....	2
Interior Design.....	1
Landscape Architecture.....	1
Sanitary Engineering.....	1
Soils Engineering.....	2
Structural Engineering.....	1
Surveys.....	3

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: II (see also 2, 6, 29)

Company Name: Urbitran Associates, Inc.

Address: 15 Park Row
New York, N.Y. 10038

Telephone: (212) 267-6310

Year Founded: 1970

8(a) Status: Certified

Principal Name: Robert B. Lee

Title: President

Average Gross Receipts (3 yrs):

Growth Pattern: 60% one-year rate of growth in 1980;
25% in 1981, and 23% in 1982.

No. Professional Staff: Full-time 94

Part-time 20

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:[∅]

(1) Hydrology..... 21

Minor Fields:

No. of Contracts:[∅]

Clients:^{∅∅}

- o New York City Department of Transportation, Sam Shorts (212) 830-7500
- o New York City Department of City Planning, Richard Todd (202) 566-8505
- o City of Newark, N.J., Fernando Rubio (201) 733-8425
- o New Jersey Department of Transportation, Ross Stevenson (609) 292-6302
- o South West Regional Planning Agency (SWRPA), Conn., Richard Carpenter (203) 866-5543

[∅]Partial number of contracts

^{∅∅}Partial list of Clients; and information on whether repeat or single-time clients not available.

Facilities: On-Site--

- o Regional offices in Washington, DC; Stamford, CT; Los Angeles, CA; Seoul, Korea; San Francisco, CA.
- o Headquarters has about 7,000 square feet of office space.
- o Two micro-computers.

Access To--

- o Mainframe computer.

Clients:^{∅∅} (Continued)

- o Federal Highway Administration, John Fegean (202) 426-9710
- o Urban Mass Transportation Administration, Richard Steinman (202) 426-4004
- o New York State Department of Transportation, John Marino (212) 938-3309

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NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Clients:** (Continued)

- o Connecticut Department of Transportation, Jim Byrnes (203) 566-4272
- o World Bank
- o Government of Korea
- o City of Caguas, Puerto Rico
- o St. Croix, U.S. Virgin Islands
- o Plateau State, Nigeria

Details of Professional Staff:

Name: Robert B. Lee, President
Degree: Ph.D., Civil Engineering
Years Experience: 20
Fields: Traffic, transportation, environment.

Name: Nicholas Bellizzi, P.E.
Degree: M.A., Civil Engineering
Years Experience: 10
Fields: Highways.

Name: Paul J. Menaker
Degree: Ph.D., System Engineering
Years Experience: 10
Fields: Transit and Transportation, Environmental Systems.

Name: Tim Miller
Degree: B.S., Environmental Planning
Years Experience: 8
Fields: Environmental Services.

Name: Michael Reviv, P.E.
Degree: B.S., Civil Engineering
Years Experience: 10
Fields: Structural Engineering.

Notes

- o Urbitran has worked with some of the nation's leading consulting firms and A-E organizations, providing specialized professional services under various contractual arrangements.

**Partial list of Clients; and information on whether repeat or single-time clients not available.

Clients:** (Continued)

- o Department of Housing and Urban Development
- o Federal Emergency Management Agency
- o U.S. Army Corps of Engineers
- o New Jersey Transit Corporation
- o New York State Metropolitan Transportation Authority
- o New York State Department of Correctional Services
- o New York City Transit Authority
- o County of Essex, New Jersey
- o County of Middlesex, New Jersey
- o City of Buffalo, New York
- o City of Rochester, New York
- o City of Detroit, Michigan
- o North Hempstead Planning Department
- o Norwalk Transit District
- o City of Stamford, Connecticut
- o Port Authority of New York and New Jersey
- o Tri-State Regional Planning Commission
- o Housatonic Valley Council of Elected Officials (HVCEO) Conn.
- o Southeast Michigan Transportation Authority (SEMTA)
- o Niagara Frontier Transportation Authority
- o New York Convention Center Development Corporation
- o New York State Urban Development Corporation
- o New York City Public Development Corporation
- o Mobil Oil Corporation
- o Consolidated Edison Corporation
- o Brooklyn Union Gas Company
- o BA Capital Corporation
- o Academy of Aeronautics, LaGuardia Airport
- o Chasanoff Organization
- o Equitable Life Assurance Company
- o Lieberman Properties
- o Rouse Corporation
- o Fulton Fish Market Cooperative Corporation
- o Flushing Mall Associates
- o Numerous Citizens' Groups, Attorneys and A-E Firms

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: II (see also 6, 30)

Company Name: Waste & Water International

Address: 5850 Shellmond Street, Suite 100
Emeryville, California 94608

Telephone: (415) 428-2381

Year Founded: 1978

8(a) Status: Certified

Principal Name: Akhtar Hamid

Title: Board Chairman

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$1.1 million

Growth Pattern: 26% one-year increase in dollar volume in 1981 and
22% in 1982.

No. Professional Staff: Full-time 15

Part-time

Capabilities and Experience of Firm:

Major Fields:

(1) Hydrology..... *

No. of Contracts:

Facilities: On-Site--

- o 2,900 square feet of office space.
- o Library.
- o Apple II and CompuPro computers.
- o 3 Drafting Stations.

Access To--

Minor Fields:

*Based on Professional staff's experiences and fields.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

None

Single-time Clients:

None

Details of Professional Staff:

Name: Akhtar Hamid, Principal
Degree: M.S.C.E., Engineering; Ph.D.
Years Experience: 13
Fields: Environmental Engineering

Name: Henry C. Hyde
Degree: M.S.C.E., Sanitary Engineer
Years Experience: 17
Fields: Waste and water management (planning, design, construction and operation of municipal and industrial wastewater systems and water supply facilities).

Name: Peter H. Bellows
Degree: B.S., Civil Engineering; M.S., Sanitary Engineering
Years Experience: 3
Fields: Civil and environmental engineering

Other Professional Staff Fields:

- Civil Engineering (2).
- Water Quality Control Technologist.
- Chemical Engineer.
- Resource Developer.

Notes:

- o Specific experience related to industrial waste includes: development of a cost recovery program for a city; an industrial use ordinance for approximately 1,500 industries; and a program for determining the impact of priority pollutants from industrial, domestic and commercial sources and the wastewater treatment plant processes and receiving waters of the city.
- o Specific experience related to industrial waste control includes: determination of the impact of trace materials and other industrial pollutants on wastewater sludge quality; industrial waste load allocations; survey and monitoring programs; preparing pre-treatment recommendations; and wastewater treatment sludge management and on-site wastewater systems.
- o Examples of staff water studies related experience: water supply master plan for two cities; geohydrologic groundwater studies; and groundwater geohydrology.

Materials/Metallurgy

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 12

Company Name: No firms were located with capabilities or experience in the
Materials/Metallurgy classification.



Mechanical Engineering

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 13 (see also 2, 16, 29)

Company Name: AMS Inc.

Address: 8401 Corporate Drive, Suite 610
Landover, Maryland 20785

Telephone: (301) 459-9100

Principal Name: Carlton H. Joseph

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$400,000; Dollar Volume, 1983: \$2.0 million
Growth Pattern: 21% one-year increase in dollar volume in 1980; 9%
in 1981; no growth in 1982; and 80% increase in 1983.

Year Founded: April, 1977

No. Professional Staff: Full-time 30

8(a) Status: Certified

Part-time 6

Capabilities and Experience of Firm:

Facilities: On-Site--

Major Fields:

No. of Contracts:

- o 3,500 square feet of office space.
- o Micro computers (Apple and DEC V100)

(1) Mechanical Engineering..... 1

Minor Fields:

No. of Contracts

Access To--

(1) Pipe Stress/Pipe Material..... 1

- o IBM 370 Model 195 computer and working relationship
with several A.E. firms.
- o Many engineering computer programs covering many areas.

Repeat Clients:

Single-time Clients:

- o U.S. Corps of Engineers

*Based on staff's experiences and fields

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Details of Professional Staff:

Name: Carlton H. Joseph, President
Degree: M.S., Engineering Administration
Years Experience: 10
Fields: Computer Science

Notes:

- o Completed all graduate course requirements for a M.S. in computer science. Has for six years been intimately involved in the development and implementation of Information Systems. Responsible for the development and implementation of the Management Information System for the Washington METRO Subway System and WMTA. Was principal project planner for the 906 MW Davis Besse Nuclear unit. Responsible for the design, development and implementation of the start-up testing network-based information system; also, start-up engineering planner for the 8567 MW Millstone Nuclear unit and was computer support analyst for two other units. In this capacity has conducted many environmental studies and has engaged in research projects pertaining to environmental matters. Also assisted in the development of a cost/schedule network based information integrated system for the Potomac generating station.

Name: Mohammed R. Shah, P.E.
Degree: B.S. Civil Engineering; M.S. Structural Engineering
Years Experience: 17
Fields: Civil Engineering; Structural Engineering

Notes:

- o Was responsible for the design and cost evaluation of gravity and reinforced concrete dams. Supervised construction of industrial and commercial buildings, designed reinforced concrete bridges and elevated water tanks and prepared monthly progress reports. Was responsible for design and analysis of some parts of the reactor building for Eastern Nuclear Unit and Brunswick Nuclear Unit. Designed some parts of the drywell and towers, and wrote design criteria for the reactor building with special emphasis on AEC requirements and latest codes. Group leader on PWR Davis Besse Nuclear Units 2 and 3 responsible for "Balance of Plant." Supervised work of ten engineers; geotechnical and environmental reports and wrote specifications for the Safety Analysis Report.

Name: Jack H. Kemeny
Degree: B.Sc. Management Systems & Personnel; B.S. Aerospace Eng.
Years Experience: 18
Fields: Cost Engineer

Notes:

- o Aerospace Engineering subfields -- fluid dynamics and aircraft structural & propulsion design. As cost/schedule supervisor, was responsible for supervision of cost and schedule for a number of nuclear power plant projects. Served as cost/schedule Supervisor on the 906 MW Davis Besse Nuclear Plant construction and on a previous 2-unit fossil and 1-unit nuclear power project.

Name: Bing Nan Ferg
Degree: B.S. Civil Engineering; M.S. Structural Engineering
Years Experience: 17
Fields: Structural Engineering

Notes:

- o Responsible for structural design and analysis of concrete and steel structures for commercial, industrial and office and apartment buildings, bridges, and highways. As senior engineer, was responsible for design and analysis of structures for a laboratory, nuclear fuel process plant and a fossil fueled power plant. Responsible for design and analysis of structures with special emphasis on loadings.

Notes:

- o In addition to details above, staff also includes:
 - Electrical Engineer
 - Industrial Engineer
 - Nuclear Engineer
 - Civil Engineers (2)
 - Environmental System Engineer
 - Economist

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 13 (see also 23, 28)

Company Name: Energy Resources & Planning Inc.

Address: 28 E. Jackson Blvd.
Chicago, IL 60604

Telephone: (312) 922-0220

Year Founded: 1976

8(a) Status: Certified

Principal Name: N. Paul Sood

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$500,000; 1981: \$860,000; 1980: \$100,000
(all figures are approximate)

Growth Pattern: Two peaks in number of contracts/year;
1983 best year to date.

No. Professional Staff: Full-time 9

Part-time -

Capabilities and Experience of Firm:

Major Fields:

(1) Mechanical Engineering..... 5

Minor Fields:

(1) HV 5

Facilities: On-Site--

- o Office fully furnished for engineering and drafting.
- o IBM computer with communications capabilities, and automatic drafting capabilities.
- o Blueprinting machine and automatic feed copier with sorter.
- o Library of Federal, state and local government codes and standards, NPC guides, and industry standards.

Access To--

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

Single-time Clients:

- o Baxter-Travenol, David Nevin (312) 940-5660
- o East View Park Condominium Association,
Marge McCarthy (312) 643-4600
- o Tollentine Center, Rev. Alfred Tripamer (312) 748-9500
- o University of Chicago, Dr. Roy Mackal (312) 753-3958

Details of Professional Staff:

Name: N. Paul Sood
Degree: M.S., Mechanical Engineering
Years Experience: 16
Fields: Heat transfer; thermal transient analysis; process piping systems.

Name: Gordi Chadha
Degree: M.S., Structural Engineering
Years Experience: 24
Fields: Substructure and superstructure design of pre-stressed bridges; post-tensioned systems design for nuclear containment vessels.

Name: Arjun V. Bedhani
Degree: M.S., Mechanical Engineering; ASQC-Certified Quality & Reliability
Years Experience: 14
Fields: Reliability and quality engineering.

Notes:

- o ERP is approved by Commonwealth Edison, Chicago, and Detroit Edison Company, Detroit, for providing AE services for Nuclear Power Plants.
- o Sood: Has done energy technology reviews for MHD, and research on heat transfer and fluid flow in Advanced Gas-Cooled Nuclear Reactor.
- o Chadha: Level III inspection Engineer per ACI/ASME criteria on concrete pressure components for nuclear service.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 13 (see also 3, 7)

Company Name: Energy Systems Engineering, Inc.

Address: 10605 Concord Street
Kensington, Maryland 20795

Telephone: (301) 946-6160

Year Founded: January, 1979

8(a) Status: Certified

Principal Name: Jose A. Reig

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$415,000

Growth Pattern: 82% one-year increase in dollar volume in 1981 and
31% in 1982

No. Professional Staff: Full-time 9

Part-time None

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Mechanical Engineering..... 30

Minor Fields:

(1) Nuclear Engineering..... *

Facilities: On-Site--

o 1800 square feet.

o Radio Shack TRS-80 computer and energy analysis software

*Based on professional staff's experiences and fields.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o U.S. Navy Facility Engineering Command (Chesapeake Div.),
R. de la Vega (202) 433-4374
- o U.S. Department of the Army (Baltimore District),
F. Timbol (202) 576-3259
- o General Services Administration,
V. Daconov (202) 472-4580

Details of Professional Staff:

Name: Jose A. Reig
Degree: B.S.
Years Experience: 17
Fields: Nuclear Engineering, Mechanical Engineering

Name: Guillermo J. Ramsay
Degree: B.S.
Years Experience: 18
Fields: Electrical Engineer

Name: Ulayan Khan
Degree: B.S.
Years Experience: 15
Fields: Electrical Engineer

Single-time Clients:

- o U.S. Navy Facility Engineering Command (Atlantic Division),
G. Heddley (804) 444-9665
- o Department of Justice, H. DeVoe (202) 324-3034
- o Department of Commerce, A. White (301) 921-3825
- o Public Health Service
- o Department of Transportation (U.S. Coast Guard),
T. Clifford (202) 426-1247
- o Architect of the Capital, G. Lukar (202) 225-3350

Notes:

- o Have done testing and design of nuclear reactor fuel assembly
for pressurized water reactors (Babcock and Wilcox)

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 13 (see also 4)

Company Name: Gaylord & Associates Corporation

Address: 505 East Olive Ave.
Sunnyvale, CA 94086

Telephone: (408) 733-2553

Year Founded: 1967

8(a) Status: Certified

Principal Name: Archie Gonzales

Title: President

Average Gross Receipts (3 yrs.)

Dollar Volume, 1982: \$800,000

Growth Pattern: Climbing 15%; \$800,000 highest volume (1981)

No. Professional Staff: Full-time 7

Part-time

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Mechanical Engineering..... 3

Minor Fields:

(1) Technical Illustrations..... 4

Facilities: On-Site--

- o Branch offices in Oakland and Oxnard, CA
- o Technical Publications/Printed Circuit Design capabilities
- o Word Processing; IBM composer; Headliner

Access To--

- o CAD/CAM 1-database

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o NASA, Richard Fimmel (408) 965-5000
- o Stanford Linear Accelerator, Ron Lynch (415) 854-3300

Single-time Clients:

Details of Professional Staff:

Name: Archie Gonzales

Degree: -

Years Experience: 21

Fields: Technical drawings and design; design of electro/
mechanical equipment and architectural design criteria.

Name: Jeanne Gonzales

Degree: B.Sc., Accounting

Years Experience: 15

Fields: Business management; accounting systems; marketing
techniques; tax planning and audits; technical
publications.

Name: Marilyn D. Marshall

Degree: B.A., Liberal Studies

Years Experience: 10

Fields: Office management.

Name: David Orejel

Degree: Certificate, Mechanical Drawing

Years Experience: 7

Fields: PCB design/layout; mechanical design.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 13 (see also 3)

Company Name: Jalords, Incorporated

Address: 511 North Broad Street
Philadelphia, PA 19123

Telephone: (215) 592-1918

Year Founded: May, 1967

8(a) Status: Certified

Principal Name: James A. Davis

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982, \$600,000

Growth Pattern: 20% one-year increase in dollar-volume in 1980;
17% in 1982

No. Professional Staff: Full-time 10

Part-time 3

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Mechanical Engineering..... 95

Minor Fields:

(1) Feasibility Studies..... *

(2) Building, Equipment and Site Survey..... *

(3) Interior Industrial and Laboratory Layout..... *

(4) Mechanical Packaging of Electronic Equipment..... *

(5) General Mechanical and Electrical Drafting..... *

Facilities: On-Site--

o 3,100 square feet of office space.

Access To--

o Mainframe computer.

*Aspects of most of the firm's contracts.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Atti Consultants, LTD, E. Taylor (301) 296-2884
- o Bell Telephone Company of Pennsylvania
- o Cam & Clubreath Associates
- o City of Philadelphia
- o Livingston/Rosenwinkel Architects, W. Livingston (215) 765-8855
- o Heland & Junker, Architects, T. Junker (215) 546-8950
- o General Services Administration, J. Luka (215) 597-3827
- o U.S. Postal Service, C. Isreal (215) 496-6227
- o Veterans Administration (PA) Campy (215) 382-8886
- o Veterans Administration (MD), G. Miller (301) 662-6915
- o U.S. Navy (NAEC), F. Purnell (215) 755-4824
- o U.S. Navy (NA FAC)

Details of Professional Staff:

Name: James A. Davis, President
Degree: B.S., Mechanical Engineering
Years Experience: 27

Fields: HVAC design, specification and field supervision for commercial and industrial construction; energy conservation studies. Licensed professional engineer in seven states.

Name: Walter S. Farley, Jr., Chief Electrical Engineer.

Degree: B.S., Electrical Engineering
Years Experience: 30

Fields: Design, specification, analysis and management of commercial and industrial electrical power systems; construction drawings for chemical process plants, generating stations, air fields and transmission sub-stations; cost estimating and design for 115/230 volt and 2,400 volt distribution facilities for system load re-inforcing.

Name: Michael E. Sciore, Staff Mechanical Engineer

Degree: B.S., Mechanical Engineering
Years Experience: 14

Fields: HVAC and plumbing design and construction; design and build of mechanical systems for hospitals.

Single-time Clients:

- o Cope Linder Associates/Bower Lewis Thrower, R. E. Linder (215) 925-6767
- o Dupont Company
- o Federal Railroad Administration
- o Leon Bridges Company
- o Mitchell/Guergola Architects, J. Lawson (215) 925-0100
- o Rhett Hamilton Jones Associates, R. Jones (215) 296-4555
- o Scott Paper Company
- o Sun Oil Company
- o U.S. Army Corps of Engineers, J. Romett (215) 537-4716

Details of Professional Staff: (Continued)

Name: Eugene Brhme, Jr., Sanitary Engineer
Degree: None (engineering training)
Years Experience: 22

Fields: Design and documentation and construction review for water pollution control facilities, pump houses and a desalination power plant; domestic water and sanitary waste systems of a complex nature.

Notes:

- o Additional Professional Staff Field
- Fire Protection Engineer

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NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: OVERVIEW (see also 2, 6, 13, 28)

Company Name: John E. Foster and Associates, Inc.

Address: 1134 Corrugated Way
Columbus, Ohio 43201

Telephone: (614) 294-5234

Principal Name: John E. Foster, P.E.

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$523,154

Growth Pattern: 71% one-year increase in dollar volume in 1981; 40%
in 1982 and 18% in 1983.

Year Founded: March, 1979

No. Professional Staff: Full-time 23

8(a) Status: Certified

Part-time 8

Capabilities and Experience of Firm:

Facilities: On-Site--

Major Fields:

No. of Contracts:

(1) Civil Engineering.....	8
(2) Environmental Impacts.....	8
(3) Mechanical Engineering.....	7
(4) Structural Engineering.....	14
(5) Traffic Engineering.....	4

- o 2,850 square feet of office space in Columbus, Ohio
- o Conference room, library, xerox room, drafting room, engineering design area, environmental planning area, marketing area and administrative area.
- o 2080 square feet of office space in Cleveland, Ohio.
- o Conference room, xerox room, drafting room, engineering design area and administrative area.

Minor Fields:

Access To--

(1) Hydrology.....	2
(2) Wastewater Management.....	18
(3) Energy Conservation/Management.....	5
(4) Water Systems Engineering.....	6

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Ohio Department of Natural Resources, J. Swartzmiller (614) 265-6948
- o Ohio Department of Transportation
- o City of Columbus, Department of Public Service
- o City of Cleveland, Department of Public Service
- o Cleveland Bridge Improvements, R. Barrish (216) 664-3346
- o U.S. Army Corps of Engineer, Louisville District
- o Franklin County Engineer, J. Circle (614) 462-3030
- o Southerly Wastewater Treatment Plant, Columbus Ohio
- o Jackson Pike Wastewater Treatment Plant, Columbus, Ohio
- o Community Services Administration

Details of Professional Staff:

Name: John E. Foster, P.E.

Degree: Bachelor of Civil Engineering

Years Experience: 27

Fields: Civil Engineering; Structural Engineering; Environmental Engineering

Name: Harry W. Roberts, P.E.

Degree: Bachelor of Civil Engineering

Years Experience: 21

Fields: Civil Engineering; Structural Engineering; Transportation Engineering.

Name: Albert S. Trefts, P.E.

Degree: Bachelor of Mechanical Engineering

Years Experience: 30

Fields: Mechanical Engineering; Process Systems; Systems Engineering

Single-time Clients:

- o Ohio Department of Energy
- o U.S. Department of Interior, National Park Service
- o City of Youngstown, Ohio
- o The Ohio State University
- o City of Bexley, Ohio
- o Central Ohio Transit Authority
- o Cleveland Public Square Improvements
- o Pike Housing Authority, Weatherby (614) 221-8487
- o Scioto Village-Phase II, Weatherby (614) 221-8487
- o Timber Ridge Apartments, Weatherby (614) 221-8487
- o Upper Mill Creek Wastewater Facilities, R. Tibbet (614) 459-2050
- o Blacklick Interceptor Facilities, (614) 888-4953
- o Long Term Solids Handling Facilities, (614) 888-4953
- o Union City Wastewater Treatment Plant
- o Sanitary Sewer Relocation, Monsanto Research Corporation

Notes:

- o Has the capability and credentials, based on accumulated professional, technical and academic accomplishments, to provide a wide range of civil, sanitary, municipal and architectural-engineering services. The scope of services includes investigations, identification of appropriate technologies, report preparation, detail, project design, construction supervision and operational analysis. Professional engineer in Ohio, Michigan and Pennsylvania.
- o Serves as Chief Engineer for the firm. Responsibilities include administration, management and control of production operations, recruitment and marketing activities in the Cleveland area. As Chief Engineer responsible for design, review, quality control and coordination of design activities. Professional Engineer in 3 states.
- o Serves as Chief Mechanical Engineer for the firm. Responsibilities include design, review, production operations and supervision of mechanical engineering design. Extensive experience in oil refining, chemical and synthetic fuels industries.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 13 (see also 28, 29)

Company Name: Hobility Systems & Equipment Company

Address: 6151 W. Century Boulevard Suite 912
Los Angeles, CA 90045

Telephone: (213) 641-3606

Year Founded: 1969

8(a) Status: Current

Principal Name: George J. Adams

Title: President

Average Gross Receipts (3 yrs):
Dollar Volume: 2,400,000.00
Growth Pattern: Upward

No. Professional Staff: Full-time 25

Part-time 0

Capabilities and Experience of Firm:

Major Fields:	No. of Contracts:
(1) Transportation.....	94
(2) Mechanical Engineering.....	37
(3) Structural Engineering.....	18

Minor Fields:

Facilities: On-Site-- Offices:

Main Office
6151 W. Century, Suite 912
Los Angeles, CA 90045

Proving Ground Research Center
3401 Etiwanda Boulevard
Mira Loma, CA 91752

Fabrication Facility
9220 Atlantic Boulevard
South Gate, CA 90280

Computer Components:

- o Microcomputer, Dynabyte Model 5505A, 64 K
- o CRT Terminal, Zenith Model Z-19
- o Dot Matrix Printer, NEC 100 CPS, Model 8023A
- o Plotter, Houston Model DPM-2, 8½ x 11 surface
- o Microcomputer, TRS-80 Model 1 level 11,48K
- o Disc Drives, TRS 5¼", .2 Mbyte capacity

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Federal Highway Administration, N. O. Clary (202) 755-9370,
L. D. McCollum (202) 755-9370
- o National Highway Traffic Safety Administration, James Auten
(202) 426-2102, Thomas Stafford (202) 426-0607
- o Urban Mass Transportation Authority, John Sulentic (202) 775-4930
- o Fort Belvoir Research and Development Command, Susan Traggerer,
Herb Rothschild (703) 664-4285
- o Toyota Motor Company, LTD., Charles Plennons (213) 618-4726

Details of Professional Staff:

Name: George J. Adams, P. E.

Degrees: Masters of Business Administration

Years Experience: 35

Fields: Transportation, Mechanical Engineering,
Structural Engineering

Name: Lloyd E. Carlson

Degrees: B. S. Mechanical Engineering

Years Experience: 25

Fields: Transportation, Mechanical Engineering,
Structural Engineering

Name: Joe O'Gorman

Degrees: B.S. Mechanical Engineering

Years Experience: 25

Fields: Transportation, Mechanical Engineering

Name: Leroy Hoover

Degrees: P.H.D. Physics

Years Experience: 30

Fields: Structural Engineering

Single-time Clients:

- o Bureau of the Mines, Steven Swan
- o Boeing Aircraft Company
- o Continental Airlines
- o Hughes Aircraft Company, Julie Lyon (213) 517-5024

Notes:

- o Mechanical & Structural Engineering
 - Allen G. Hoffman - Directs assessment and development of projects involving structural strength and mechanical operations.
 - Brian W. Firth - Analyzed & developed mechanical assessments of military wheeled vehicles.
- o Transportation
 - Duncan McKinnen - Chief of Advanced Development Division (DOT), directed programs developing improved technology for urban ground transportation systems.
 - Irwin Rowe - Responsible for the development and management projects related to automated transportation technology, industrial management and development of R & D projects of various types.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 13 (see also 1, 3)

Company Name: Technology Applications, Inc.

Address: 3 Skyline Place
5201 Leesburg Pike, Suite 1000
Falls Church, VA 22041

Telephone: (703) 931-2000

Year Founded: 1977

8(a) Status: Certified

Principal Name: James I. Chatman

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume Year Ending April 1984: \$11,000,000

Year Ending April 1983: \$ 5,000,000

Year Ending April 1982: \$ 950,000

Growth Pattern: Steadily increasing, expanding rapidly

No. Professional Staff: Full-time 238

Part-time 3

Consultants 10

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Mechanical Engineering..... 4

Minor Fields:

Facilities: On-Site--

- o PDP 1144
- o 2 North Star Horizon micro-computers

Access To--

- o David W. Taylor Naval Ship Research and Development Center; Carderock, MD and Portsmouth, VA.
- o NASA - Langley Research Center; EPA - Athens, GA.
- o Hampton Roads Industrial Division; Norfolk, VA.
- o Numerous time-sharing vendors' hardware including IBM, UNIVAC, Honeywell and DEC mainframes with a wide variety of compilers, statistical packages and Data Base Management Systems Software.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o David Taylor Naval Ship Research & Development Center,
Ed O'Neal, Walter Zietfuss (202) 227-1853
- o Naval Station Systems Command, Ralph Yeatles (202) 692-2434(5)

Single-time Clients:

Details of Professional Staff:

Name: Edward Graham

Degree: M.S. International Relations; B.S. Engineering

Years Experience: 30

Fields: Engineering; weapons systems requirements; naval, aerospace and aviation equipment development.

Name: Theodore J. Lutz

Degree: M.S. Systems Analysis; B.S. Electrical Engineering

Years Experience: 8

Fields: Electrical engineering; systems analysis; marine engineering.

Name: Alexander M. Lehrer

Degree: B.E.E. Electrical Engineering; Registered P.E. Mechanical Engineering and Naval Architecture

Years Experience: 44

Fields: Electrical engineering; mechanical engineering; naval engineering.

Name: Dr. Franklin G. Fisher, Jr.

Degree: Ph.D., Sociotechnical Systems; M.P.A.; M.S.S.M.; B.S.S.E.

Years Experience: 25

Fields: Systems engineering; public administration.

Name: Emil M. Szten

Degree: B.S. Civil Engineering, Mechanical Engineering, Naval Architecture; Registered P.E.

Years Experience: 43

Fields: Government and industry experience.

Notes:

o Personnel capable in:

- Chemical Engineering
- Civil Engineering
- Electrical Engineering
- Mechanical Engineering
- Transportation Engineering
- Aerospace Engineering
- Industrial Engineering
- Physics
- Chemistry

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 13 (see also 16, 25)

Company Name: Viking Energy Corporation

Address: 121 N. Highland Avenue, Suite 203
Pittsburgh, PA 15206

Telephone: (412) 363-7777

Year Founded: 1978

8(a) Status: Certified

Principal Name: Jack Saluja

Title: President

Average Gross Receipts (3 yrs):
Dollar Volume, 1982: \$200,000 - \$250,000

No. Professional Staff: Full-time 5

Part-time 10

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Mechanical Engineering..... 3

Minor Fields:

(1) Coal Conversion Studies..... *

(2) Environmental (water quality;
airborne pollutants) Studies..... *

Facilities: On-Site--

- o Inhouse:
 - Reproduction Facilities.
 - Inhouse Reference Library.

Access To--

- o CDC Computer Terminal.
- o Additional facilities available for technical (library) research and computing:
 - University of Pittsburgh Library.
 - Carnegie-Mellon University Facilities.
 - University of Michigan Facilities.
- o Additional Personnel Resources are available from the universities for:
 - Programming.
 - Concepts Development.
 - Graphics.
 - Software Development.

*Information not provided.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o NASA, Lewis Research Center, Stan Marsick (216) 433-4000
- o Department of Energy, Lloyd Lorenzi (412) 675-6136
- o Nuclear Regulatory Commission
- o USAID/DOE, Dan Bainstock (412) 675-5715
- o Westinghouse Electric, W. Calway (412) 928-2442
R. Mentz (412) 928-2181
- o Flowtran, Inc.

Details of Professional Staff:

Name: Jack Saluja

Degree: Ph.D., Nuclear Engineering

Years Experience: 24

Fields: Nuclear design and analysis of PWR cores; accident analysis of PWR; control systems design and analysis; system modeling.

Name: C. H. Brown

Degree: B.S., Structures

Years Experience: 30

Fields: Structural/stress analytical methods for reactor components and subsystems; structural/mechanical effects of HCDA on reactor vessel and internals; dynamics of structures; high temperature structural design; fatigue and effects of cyclic loading; ANSYS; NASTRAN, MARC.

Single-time Clients:

- o Brown Boveri Compugard, Romesh Wadhvani (412) 787-3000
- o CONSAD Research Corporation, Wilbur Speger (412) 363-5500
- o Pittsburgh Testing Laboratory, David Dunn (312) 449-5050
- o Burns & Roe, Paramus, NJ, J. M. Gans
- o Parameter, Inc., Elm Grove, WI, Richard Lofy (414) 786-7580

Notes:

o Types of services offered

- Analytical Services (mathematical models).
- Review Services in Operating and Non-Operating Plants.
- Breeder Reactor Program Studies.
- Nuclear Waste Management.
- Emergency Planning.
- Risk Analysis.
- Training Services.
- Quality Assurance/Quality Control Services.
- Studies of Power System Capabilities.
- Application of Robots for Decontamination.

o Plus eleven regular consultants, and three associates at:

- Viking Energy - Colorado.
- Pittsburgh Testing Laboratory.
- CONSAD Research Corporation.

1

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 13 (see also 2, 3, 31)

Company Name: Wilson & Associates, Inc.

Address: 4439 Reading Road
Cincinnati, Ohio 45229

Telephone: (513) 641-2006

Year Founded: 1971

8(a) Status: Certified

Principal Name: Henry Wilson, Jr., P.E.

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$100,000-\$250,000 in fees for direct Federal work; \$500,000-\$1 Million for all other domestic work.

Growth Pattern: Steady

No. Professional Staff: Full-time 31; 2 professional support

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) HVAC.....	61
(2) Plumbing and Piping.....	40
(3) Fire protection.....	30

Facilities: On-Site--

o Three fully operational word processing systems; currently investigating the CADD System and an engineering system for analysis and design.

Minor Fields:

Access To--

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o National Institute of Occupational Safety Hazards, Bert Coble
(301) 443-5730
- o City of Cincinnati, Steve Bloomfield (513) 352-3471

Single-time Clients:

- o University of Cincinnati, John J. Reese (513) 475-6161
- o Cincinnati Public Schools, C. W. Carroll (513) 369-4024
- o Cincinnati Job Corps Center, Howard Stallworth (513) 369-4024

Details of Professional Staff:

Name: Henry Wilson, Jr., P.E.

Degree: A.S., Engineering

Years Experience: over 24 years

Fields: Civil, structural, electrical, and mechanical engineering
design and construction administration experience.

Name: Hosea Frazier, P.E.

Degree: B.S. Architecture; M.S. Candidate (Structural Engineering)

Years Experience: over 16 years

Fields: Structural engineering, project management; structural design
in reinforced concrete, steel and timber.

Name: Richard H. Mellot, A.I.A.

Degree: B.S., Architecture

Years Experience: over 10 years

Fields: Design, supervision; Project Architect for numerous
Commercial and institutional buildings.



Meteorology

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 14 (see also 29)

Company Name: Applied Systems Institute, Inc.

Address: 1910 K Street, N.W., Suite 600
Washington, D.C. 20006

Telephone: (202) 785-0920

Year Founded: December, 1977

B(a) Status: Certified

Principal Name: Duk-Joong Won

Title: President

Average Gross Receipts (3 yrs):

Growth Pattern: 248% one-year increase in dollar volume in 1979;
204% in 1980; no growth in 1981; and 117% in 1982.

No. Professional Staff: Full-time 30

Part-time 5

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Meteorology.....3 (subcontracts)

Minor Fields:

(1) Human Factors Engineering.....*
(2) Statistics.....80% of all contracts

Facilities: On-Site--

- o 5,800 square feet of office space, large conference room and library.
- o In-house computer (DEC VAX 750).
- o Working library containing 2,000 volumes of references, professional journals and up-to-date statistical information.

Access To--

- o On-line independent computer capabilities utilizing major time sharing systems
- o Dependent capabilities employing client computers.

*Based on professional staff's experiences and fields

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o U.S. Department of the Navy, T. Gattis (202) 767-2347

Details of Professional Staff:

Name: Duk-Joong Won, President

Degree: Ph.D., Resource Economics

Years Experience: 17

Fields: Optimization techniques, econometrics, project and small business management, management information systems.

Name: Phillip S. Lee, Senior Vice President

Degree: M.S., Computer Science

Years Experience: 13

Fields: Real-time systems; scientific programming and design; development, installation of real-time turn-key systems, file management and direct executable compiler; meteorological ground station using various minicomputers and micro-processors.

Name: Benjamin J. Loret, Vice President

Degree: M.B.A.; M.S., Astronautics, D.B.A

Years Experience: 22

Fields: Program management; system engineering; and development of large-scale, integrated information systems; MIS design and development; problem solving; economics, energy programs; military command and control; aviation/space, human factors and military RDT&E and weapon system acquisition.

Name: Joe W. Lee, Sr. Economist

Degree: Ph.D, Business Administration

Years Experience: 30

Fields: Regional economics and demographic projections; statistical modeling; input-output analysis; feasibility studies.

Single-time Clients:

- o Peoples Republic of China (sponsored by the United Nations)

Notes:

- o Other staff capabilities:

- Statistics.
- Mathematical analysis.
- Data and file organization and management
- Program and system optimization and enhancement.
- System management and modification.
- Designing and implementing new computer systems.
- Economic and demographic analysis.
- Forecasting at both the national and regional levels.

- o System and software engineering:

- Meteorological high resolution data processing.
- Image processing.
- Navy SPADS system.
- Automatic picture transmission.
- Telemetry data processing.
- High speed mass storage controller.
- Real-time communications processings.
- Information-on-demand systems.
- Data base management system.
- Mini-computer site management
- Computerized weather satellite information.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 14 (see also 6, 8)

Company Name: Professional Analysts, Inc.

Address: 743 Country Club Road
Eugene, Oregon 97401

Telephone: (503) 485-6877

Year Founded: 1975

8(a) Status: Certified

Principal Name: John Nelson

Title: President

Average Gross Receipts (3 yrs):

Average Dollar Volume, past 3 years: \$896,000

No. Professional Staff: Full-time 10

Part-time (on a consulting basis)

Capabilities and Experience of Firm:

Major Fields:

(1) Meteorology.....1

Minor Fields:

(1) Statistics.....*
(2) Probabilistic Risk Assessment.....*

Facilities: On-Site--

- o Branch offices at 1015 Broadwater, Billings, MT 59101; and at 315 W. Ponce de Leon, Suite 338, Decatur, GA 30030.
- o Digital Equipment Corporation computers.
- o 4WD vehicles, survey instruments, laboratory equipment, drafting/cartographic instruments, photographic equipment, etc.)

Access To--

*Most contracts have included elements of this field.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

Single-time Clients:

o Bureau of Land Management, John Cunningham (303) 234-6132

Details of Professional Staff:

Name: John Nelson

Degree: Ph.D./ABD

Years Experience: 15+

Fields: Project Administration; Socioeconomic research; Planning;
Statistics; Computers.

Name: Dr. Bhagwati Poddar

Degree: Ph.D., Sociology

Years Experience: 20

Fields: Sociology; economics; anthropology.

Name: Richard Craven

Degree: M.S., Environmental Science

Years Experience: 7+

Fields: Environmental studies; statistical data analysis; technical
report writing.

Name: Richard Kent

Degree: M.S., Geology

Years Experience: 7

Fields: Engineering; geology; energy resources; strip mine geology;
power plant siting; right-of-way, hydrogeology; minerals
exploration.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 14 (see also 15, 19, 27)

Company Name: Scientific Systems, Inc.

Address: 54 Rindge Avenue Extension
Cambridge, MA 02140

Telephone: (617) 661-6364

Year Founded: September, 1976

8(a) Status: Certified

Principal Name: Raman K. Mehra

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$2 Million

Growth Pattern: 33% one-year increase in dollar volume in 1980;
25% in 1981; and 20% in 1982

No. Professional Staff: Full-time 40

Part-time 5

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Meteorology..... 4

Minor Fields:

(1) Electrical Engineering..... *

(2) Electronics Engineering..... *

(3) Regulatory Analysis..... *

Repeat Clients:

- o Hanscom Air Force Base, Tim Bunting (617) 861-3498
- o NOAA, Don Gilman (301) 763-8155

Facilities: On-Site--

- o Branch office in Dallas, Texas
- o 14,000 square feet of office space.
- o VAX 11/780 computer.

Access To--

- o Computers at Harvard University.

Single-time Clients:

None

*See professional staff experiences.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Details of Professional Staff:

Name: Raman K. Mehra, President

Degree: Ph.D., Control Systems Theory

Years Experience: 15

Fields: Control system design, computer simulation, stability analysis, optimal control and estimation, numerical solution of optimization problems; system identification, adaptive and stochastic control, time series analysis, fault detection and diagnosis using operating data.

Notes:

- o Worked on the design of autopilots for aircraft, using modern control theory. Dissertation research concerned with the application of optimum smoothing and conjugate gradient methods to inertial navigation and aerospace problems. Member of a technical staff responsible for applying estimation and control theory to inertial navigation systems. Developed several computer programs for optimum filtering, smoothing and identification of linear dynamic systems. Has developed a new approach for obtaining optimal inputs to identify linear dynamic systems, and to design adaptive control systems for complex industrial processes. Numerous publications (100+).

Name: Donald E. Gustafson, Vice President

Degree: Ph.D., Engineering

Years Experience: 21

Fields: Biomedical specialty; modern estimation and detection theory, biomedical systems, stochastic control systems, pattern recognition, dynamic system modeling, numerical optimization, software system development, computer simulation.

Notes:

- o Has participated in the design of guidance control systems for Polaris; statistical analyses of missile guidance and navigation errors. Has conducted studies in strategic systems analysis and developed comprehensive six-degree-of-freedom dynamic simulations for missile analysis.

Name: Alex L. Kozmale

Degree: B.S.

Years Experience: 20

Fields: Software development; post-graduate experimental work in the field of low temperature physics, investigating applications of superconductivity.

Details of Professional Staff: (Continued)

Notes:

- o Before joining this company, directly responsible for several software development efforts for the Air Force and for NASA: Responsible for the first guided Apollo missions and helped establish the techniques of software integration and verification that were employed on this and subsequent missions.

Name: John Baillieul

Degree: Ph.D., Applied Mathematics

Years Experience: 24

Fields: Algebraic systems theory; ordinary differential equations; stochastic control and optimal control.

Notes:

- o Has been involved in biomedical research -- pattern recognition, simulation of drug interactions, and the development of information theoretic models of medical diagnosis. Developed most of the software for the standard numerical functions in a MUMPS computer system. Recent research focuses on modeling problems for large scale systems, design and stability analysis of circuits, and control of nonlinear systems. Project manager on several DOE projects on transient stability analyses and security assessment for power systems.

Notes:

- o A SECRET facility clearance has been granted by the Defense Logistics Agency, Boston, MA (FSC #2N787).
- o Other Professional Staff Fields:
 - Control systems theory and rigid body dynamics
 - Mathematics
 - Statistics
 - Engineering physics
 - Economic systems
 - Chemical engineering
 - Electrical engineering
 - Mechanical engineering



Nondestructive Examination

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 15 (see also 14, 19, 27)

Company Name: Scientific Systems, Inc.

Address: 54 Rindge Avenue Extension
Cambridge, MA 02140

Telephone: (617) 661-6164

Year Founded: September, 1976

S(a) Status: Certified

Principal Name: Raman K. Mehra

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$2 Million

Growth Pattern: 33% one-year increase in dollar volume in 1980;
25% in 1981; and 20% in 1982

No. Professional Staff: Full-time 40

Part-time 5

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Nondestructive Examination.....1

Minor Fields:

(1) Electrical Engineering.....*
(2) Electronics Engineering.....*
(3) Regulatory Analysis.....*

Repeat Clients:

Facilities: On-Site--

- o Branch office in Dallas, Texas
- o 14,000 square feet of office space.
- o VAX 11/780 computer.

Access To--

- o Computers at Harvard University.

Single-time Clients:

- o U.S. Air Force, Mr. Moyzis (513) 255-5039

*See professional staff experiences.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Details of Professional Staff:

Name: Raman K. Mehra, President

Degree: Ph.D., Control Systems Theory

Years Experience: 34

Fields: Control system design, computer simulation, stability analysis, optimal control and estimation, numerical solution of optimization problems; system identification, adaptive and stochastic control, time series analysis, fault detection and diagnosis using operating data.

Notes:

- o Worked on the design of autopilots for aircraft, using modern control theory. Dissertation research concerned with the application of optimum smoothing and conjugate gradient methods to inertial navigation and aerospace problems. Member of a technical staff responsible for applying estimation and control theory to inertial navigation systems. Developed several computer programs for optimum filtering, smoothing and identification of linear dynamic systems. Has developed a new approach for obtaining optimal inputs to identify linear dynamic systems, and to design adaptive control systems for complex industrial processes. Numerous publications (100+).

Name: Donald E. Gustafson, Vice President

Degree: Ph.D., Engineering

Years Experience: 21

Fields: Biomedical specialty; modern estimation and detection theory, biomedical systems, stochastic control systems, pattern recognition, dynamic system modeling, numerical optimization, software system development, computer simulation.

Notes:

- o Has participated in the design of guidance control systems for Polaris; statistical analyses of missile guidance and navigation errors. Has conducted studies in strategic systems analysis and developed comprehensive six-degree-of-freedom dynamic simulations for missile analysis.

Name: Alex L. Kosmala

Degree: B.S.

Years Experience: 20

Fields: Software development; post-graduate experimental work in the field of low temperature physics, investigating applications of superconductivity.

Details of Professional Staff: (Continued)

Notes:

- o Before joining this company, directly responsible for several software development efforts for the Air Force and for NASA: Responsible for the first guided Apollo missions and helped establish the techniques of software integration and verification that were employed on this and subsequent missions.

Name: John Baillieul

Degree: Ph.D., Applied Mathematics

Years Experience: 24

Fields: Algebraic systems theory; ordinary differential equations; stochastic control and optimal control.

Notes:

- o Has been involved in biomedical research -- pattern recognition, simulation of drug interactions, and the development of information theoretic models of medical diagnosis. Developed most of the software for the standard numerical functions in a MUMPS computer system. Recent research focuses on modeling problems for large scale systems, design and stability analysis of circuits, and control of nonlinear systems. Project manager on several DOE projects on transient stability analyses and security assessment for power systems.

Notes:

- o A SECRET facility clearance has been granted by the Defense Logistics Agency, Boston, MA (FSC #2N787).
- o Other Professional Staff Fields:
 - Control systems theory and rigid body dynamics
 - Mathematics
 - Statistics
 - Engineering physics
 - Economic systems
 - Chemical engineering
 - Electrical engineering
 - Mechanical engineering



Nuclear Engineering

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 16 (see also 2, 13, 29)

Company Name: AMS Inc.

Address: 8401 Corporate Drive, Suite 610
Landover, Maryland 20785

Telephone: (301) 459-9100

Year Founded: April, 1977

8(a) Status: Certified

Principal Name: Carlton H. Joseph

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$400,000; Dollar Volume, 1983: \$2.0 million
Growth Pattern: 21% one-year increase in dollar volume in 1980; 9%
in 1981; no growth in 1982; and 80% increase in 1983.

No. Professional Staff: Full-time 30

Part-time 6

Capabilities and Experience of Firm:

Major Fields:

(1) Nuclear Engineering.....*

Minor Fields:

No. of Contracts:

No. of Contracts

Facilities: On-Site--

- o 3,500 square feet of office space.
- o Micro computers (Apple and DEC V100)

Access To--

- o IBM 370 Model 195 computer and working relationship with several A.E. firms.
- o Many engineering computer programs covering many areas.
- o IBM 4300, PDP 11 VAX.

Repeat Clients:

- o None

Single-time Clients:

- o None

*Based on staff's experiences and fields

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Details of Professional Staff:

Name: Carlton H. Joseph, President
Degree: M.S., Engineering Administration
Years Experience: 10
Fields: Computer Science

Notes:

- o Completed all graduate course requirements for a M.S. in computer science. Has for six years been intimately involved in the development and implementation of Information Systems. Responsible for the development and implementation of the Management Information System for the Washington METRO Subway System and WMATA. Was principal project planner for the 906 MW Davis Besse Nuclear unit. Responsible for the design, development and implementation of the start-up testing network-based information system; also, start-up engineering planner for the 8567 MW Millstone Nuclear unit and was computer support analyst for two other units. In this capacity has conducted many environmental studies and has engaged in research projects pertaining to environmental matters. Also assisted in the development of a cost/schedule network based information integrated system for the Potomac generating station.

Name: Mohammed R. Shah, P.E.
Degree: B.S. Civil Engineering; M.S. Structural Engineering
Years Experience: 17
Fields: Civil Engineering; Structural Engineering

Notes:

- o Was responsible for the design and cost evaluation of gravity and reinforced concrete dams. Supervised construction of industrial and commercial buildings, designed reinforced concrete bridges and elevated water tanks and prepared monthly progress reports. Was responsible for design and analysis of some parts of the reactor building for Eastern Nuclear Unit and Brunswick Nuclear Unit. Designed some parts of the drywell and towers, and wrote design criteria for the reactor building with special emphasis on AEC requirements and latest codes. Group leader on PWR Davis Besse Nuclear Units 2 and 3 responsible for "Balance of Plant." Supervised work of ten engineers; geotechnical and environmental reports and wrote specifications for the Safety Analysis Report.

Name: Jack H. Keweny
Degree: B.Sc. Management Systems & Personnel; B.S. Aerospace Eng.
Years Experience: 18
Fields: Cost Engineer

Notes:

- o Aerospace Engineering subfields -- fluid dynamics and aircraft structural & propulsion design. As cost/schedule supervisor, was responsible for supervision of cost and schedule for a number of nuclear power plant projects. Served as cost/schedule Supervisor on the 900 MW Davis Besse Nuclear Plant construction and on a previous 2-unit fossil and 1-unit nuclear power project.

Name: Bing Nan Feng
Degree: B.S., Civil Engineering; M.S. Structural Engineering
Years Experience: 17
Fields: Structural Engineering

Notes:

- o Responsible for structural design and analysis of concrete and steel structures for commercial, industrial and office and apartment buildings, bridges, and highways. As senior engineer, was responsible for design and analysis of structures for a laboratory, nuclear fuel process plant and a fossil fueled power plant. Responsible for design and analysis of structures with special emphasis on loadings.

Notes:

- o In addition to details above, staff also includes:
 - Electrical Engineer
 - Industrial Engineer
 - Nuclear Engineer
 - Civil Engineers (2)
 - Environmental System Engineer
 - Economist

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 16 (see also 4, 30)

Company Name: E. H. White & Co., Inc.

Address: 245 Clement Street
San Francisco, CA 94118

Telephone: (415) 668-0076

Year Founded: 1971

8(a) Status: Certified

Principal Name: Earl H. White

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$2 million

Growth Pattern: 33% one-year increase in dollar volume in 1980 and periods of no growth since that time.

No. Professional Staff: Full-time 75

Part-time

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Nuclear Engineering.....*

Facilities: On-Site--

- o Offices in San Francisco and Washington, D.C. have in-house computer and word processing capabilities, reproduction, graphics, and workshop/seminar facilities.
- o Staff in both places have software competence and regularly access national commercial databases.
- o In-house databases construction is extensive, as well as broad knowledge of international information systems.

Minor Fields:

(1) Electrical Engineering.....*

(2) Mechanical Engineering.....*

(3) Geology.....*

Access To--

- o Both sites have remote access to major computer time sharing systems.

Repeat Clients:

None (in technical areas)

Single-time Clients:

None (in technical areas)

*Technical areas represent a new business direction for the firm and are based solely on professional staff's capabilities and fields. (Provided extensive examples of previous current large scale and long term contracts mostly in the area of social research.)

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Details of Professional Staff:*

Name: Michael O. Shick
Degree: Ph.D., Physics
Years Experience: 8
Fields: Materials/subsystems testing and evaluation; laser threats and missile vulnerability.

Notes:

- o Worked on projects concerned with: survivability of military systems in prespecified nuclear weapons environment and computational analysis and simulation of material/component response; developed methodology and computer codes to assess vulnerability of missile systems to high energy laser threat; chief consultant to Army Laser Systems Project Office on direction of missile vulnerability program.

Name: Shirish M. Gandhi
Degree: M.S.E.E.; P.E. Engineering
Years Experience: 13
Fields: Engineering; Electrical Power and Control Systems Analyst

Notes:

- o As a consultant and Technical Staff Engineer in the Kansas Gas and Electric Co.'s Nuclear Plant Engineering Department, provided leadership and guidance to a group of 15 process and I.C. Engineers in performance of Design Review, established startup procedures and supported management and coordination of consultants and contractors for the testing of Wolf Creek Nuclear Generating Station; as process engineer researched NRC guidelines and NUREGS and defined instrumentation, channels, tower parameters, computer configurations, peripherals and Nuclear Data Links for design of Emergency Response Facilities, Technical Support Centers and interfaces with Supervisory Control Systems in the Central Control Room. Under the direction of KG&E Nuclear Plant Management participated in writing of technical specifications and review of FSAR for Operating License. Coordinated Mechanical & Electrical Groups. On other projects: provided direction of electrical engineering design, recruitment and supervision of staff; provided consultation, design of power system and Process Control for Refinery and Chemical Plants; analysis and design of Neutral Beam Power Supplies for fusion power research experiments; electrical subsystems power systems.

*Staff language competence in Spanish, French, Italian, German, Arabic, Somali, and two dialects of Chinese.

Details of Professional Staff: (continued)

Name: John W. Childress, III
Degree: M.S. Physics, Mathematics
Years Experience:
Fields: Research geophysics; space mechanics; information systems; telecommunications.

Notes:

- o Taught physics and space mechanics; worked on APOLLO, SURVEYOR, BQS-13, CORA, NIPS, TIPS, MIDAS, DIMUS, FABHDS, S-70, NTDS, ATDS, DAMP, GASLIGHT, MMMinuteman, 480-L, COR, VLA, HULTEC, LRPA, S3A, MA-10, ASB-1, Sidewinder, MILLARD, THUMPER, AF EDL, and BAMBI. Also, responsibilities on other projects included: hardware and software design architectures; selection and implementation; verification and validation, and operation and maintenance activities; had responsibilities on the A.F. Laboratory Office Network System deployed at Hancomb Field and Rome Air Development Center; completed signal processing for sonar and adaptive HF systems, analysis of intelligence systems and systems analysis. As a Senior Research Geophysicist, a new method of seismic signal enhancement was developed for oil exploration.

Name: Thaddeus W. Usowicz
Degree: Ph.D., Medical Information and Computer Sciences
Years Experience: 24
Fields: Computer Languages (strong in FORTRAN AND PASCAL) database language and assembler; management sciences; computer applications problem solving and planning.

Notes:

- o Project responsibilities included: specification analyses and evaluation of projects with large capital expenditures; design and development of complex computer based patronage forecasting model fare-demand elasticity studies; computer simulation of systems operations; comparative energy consumption studies; development of a fluidic flowmeter (his own device) for bio-medical and other applications; studies of intermodal, inter-operator transit integration practices; studies of private and public transportation on air pollution levels, energy consumption and congestion in major urban areas.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 16 (see also 26, 30,)

Company Name: Engineering Analysis & Test Company (EA&T)

Address: 2054 Broadway
Santa Monica, CA 90404

Telephone: (213) 829-7817

Principal Name: Raymond Perez

Title: President

Average Gross Receipts (3 yrs):

Professional Services Fees - 1980: \$250,000
1981: \$250,000
1982: \$250,000
1983: \$350,000

Year Founded: 1976

No. Professional Staff: Full-time 5

8(a) Status: Certified

Part-time 2

Capabilities and Experience of Firm:

Facilities: On-Site--

Major Fields:

No. of Contracts:

(1) Nuclear Engineering..... 7

o Environmental Test Laboratory (IEEE-323-1974 Equipment Qualification Programs).

o Portable Field Vibration Test Equipment (IEEE-344-1975 Equipment Qualification Programs).

Minor Fields:

(1) LWR Equipment Qualification..... 7

Access To--

o Support services contracts with UCLA and CDC for computer time-sharing and analysis program maintenance; Rockwell International Autometrics Division and Structural Dynamics Research Corporation for seismic biaxial and triaxial shake table proof testing capabilities.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

Single-time Clients:

- o Consip Inc., Al Robinson (213) 692-9021
- o Ronan Engineering Company, Peter Rothermel (213) 883-5211
- o Custom Control Panels, Jeff Domeneli (213) 945-6491
- o Bunker Ramo Corporation, John Cameron (213) 341-0710
- o Borg Warner Energy Equipment, Fred Bolamperti (213) 341-0710
- o MCC Powers Regulator Company, Robert Neary (312) 677-9580

Details of Professional Staff:

Details of Professional Staff: (Continued)

Name: Raymond Perez
Degree: B.S., Mechanical Engineering; M.S., Nuclear Engineering
Years Experience: 16
Fields: Nuclear Engineering; Mechanical Engineering; Radiation Waste Management; Safety Analysis; Environmental Analysis; Shielding Analysis; Thermo-Chemical Analysis; Energy Conservation Systems.

Name: Alfred D. Robinson
Degree: B.S., Science
Years Experience: 40
Fields: Electrochemistry; Electronics; Nuclear Science; Hydraulics; Logic Networks; Instrumentation Systems.

Name: Michael B. Perez
Degree: B.A., Economics
Years Experience: 13
Fields: Program Management; Financial Analysis; Cost Accounting; Quality Assurance; Administration; Procurement.

Name: Christina T. Perez
Degree: B.A., Architecture
Years Experience: 10
Fields: Seismic Analysis; Stress Analysis; Equipment Qualification; Structural Design; Environmental Impact Analysis; Facility Design Review.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 16

Company Name: Viking Energy Corporation

Address: 121 N. Highland Avenue, Suite 203
Pittsburgh, PA 15206

Telephone: (412) 363-7777

Year Founded: 1978

8(a) Status: Certified

Principal Name: Jack Saluja

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$200,000 - \$250,000

No. Professional Staff: Full-time 5

Part-time 10

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Nuclear Engineering..... 3

Minor Fields:

(1) Nuclear Power Plant
Design and Analysis..... *

(2) Coal Conversion Studies..... *

(2) Environmental (water quality;
airborne pollutants) Studies..... *

Facilities: On-Site--

o Inhouse:

- Reproduction Facilities.
- Inhouse Reference Library.

Access To--

o CDC Computer Terminal.
o Additional facilities available for technical (library) research and computing:

- University of Pittsburgh Library.
- Carnegie-Mellon University Facilities.
- University of Michigan Facilities.

o Additional Personnel Resources are available from the universities for:

- Programming.
- Concepts Development.
- Graphics.
- Software Development.

*Information not provided.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o NASA, Lewis Research Center, Stan Marsick (216) 433-4000
- o Department of Energy, Lloyd Lorenzi (412) 675-6136
- o Nuclear Regulatory Commission
- o USAID/DOE, Dan Bainstock (412) 675-5715
- o Westinghouse Electric, W. Calway (412) 928-2442
R. Mentz (412) 928-2181
- o Flowtran, Inc.

Details of Professional Staff:

Name: Jack Saluja

Degree: Ph.D., Nuclear Engineering

Years Experience: 24

Fields: Nuclear design and analysis of PWR cores; accident analysis of PWR; control systems design and analysis; system modeling.

Name: C. H. Brown

Degree: B.S., Structures

Years Experience: 30

Fields: Structural/stress analytical methods for reactor components and subsystems; structural/mechanical effects of HCDA on reactor vessel and internals; dynamics of structures; high temperature structural design; fatigue and effects of cyclic loading; ANSYS; NASTRAN, MARC.

Single-time Clients:

- o Brown Boveri Compugard, Romesh Wadhvani (412) 787-3000
- o CONSAD Research Corporation, Wilbur Speger (412) 363-5500
- o Pittsburgh Testing Laboratory, David Dunn (312) 449-5050
- o Burns & Roe, Paramus, NJ, J. M. Gans
- o Parameter, Inc., Elm Grove, WI, Richard Lofy (414) 786-7580

Notes:

- o Types of services offered

- Analytical Services (mathematical models).
- Review Services in Operating and Non-Operating Plants.
- Breeder Reactor Program Studies.
- Nuclear Waste Management.
- Emergency Planning.
- Risk Analysis.
- Training Services.
- Quality Assurance/Quality Control Services.
- Studies of Power System Capabilities.
- Application of Robots for Decontamination.

- o Plus eleven regular consultants, and three associates at:

- Viking Energy - Colorado.
- Pittsburgh Testing Laboratory.
- CONSAD Research Corporation.



Nuclear Fuel

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 17

Company Name: No firms were located with capabilities or experience in the Nuclear Fuel classification.

Nuclear Reactor

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 18

Company Name: No firms were located with capabilities or experience in the Nuclear Reactor classification.



Probabilistic Risk Assessment

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 19 (see also 6, 10, 20)

Company Name: Engineering & Economics Research, Inc.

Address: 1951 Kidwell Drive
Vienna, VA 22180

Telephone: (703) 893-8600

Year Founded: 1979

8(a) Status: Certified

Principal Name: Harpal S. Dhillon

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: No information

Growth Pattern: 68% one-year growth rate in 1981;
42% in 1982; and 59% in 1983

No. Professional Staff: Full-time 110

Part-time 8

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Probabilistic Risk Assessment..... 2

Minor Fields:

(1) Statistics..... 6

Facilities: On-Site--

- o Maintains two locations with executive offices, professional staff and business offices, library, meeting facilities.
- o Prime 750 computer which contains a core memory of 2 million bytes, disk space of 200 megabytes, and a tape drive backup, 12 IBM personal computers, a Wang 2200, an Osborne and a Dynabyte DB8/2 computer.
- o The prime supports 6 TAB terminals, a high speed Printomex 600 line printer; and a Zeta color graphics plotter. At maximum configuration the computer will support 128 terminals.

Access To--

- o Has available two remote terminals with access to PRCS time-sharing mainframe (IBM 360/91).

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Department of Defense
- o Federal Emergency Management Agency, G. Orrell (202) 287-0036
- o Environmental Protection Agency, T. Knutson (202) 382-2794
- o CH2M Hill, Inc., W. Sellman (703) 620-5200

Details of Professional Staff:

Name: Harpal S. Dhillon, President

Degree: Ph.D., Industrial Engineering and Operations Research

Years Experience:

Fields: Systems analysis and design; mathematical programming; strategic, technological and economic evaluation of programs for energy, resources and environment; cost/benefit analysis; production planning and control; statistics and quality control; and computer applications.

Name: Jai N. Gupta, Executive Vice President

Degree: M.Sc. Electrical Engineering; M.B.A. Business Finance;
Ph.D. Communications Image Processing and Pattern Recognition

Years Experience:

Fields: Aerospace and energy systems.

Name: Morris N. Gunzburg, Vice President

Degree: B.S. Electrical Engineering

Years Experience:

Fields: Product planning and evaluation; corporate management; planning and marketing.

Name: George M. Frederickson, Senior Analyst

Degree: B.A.E. Aeronautical Engineering

Years Experience:

Fields: Systems engineering and analysis; software consultation and programming in applications, including on-line data bases, real time tracking and commanding, weapon system data processing and scientific programming.

Single-time Clients:

- o Department of the Interior
- o Department of Housing and Urban Development

Notes:

o Additional Staff Expertise:

- Human Resource Development
- Space Physics
- Electrical Communications
- Automatic Speech Recognition
- Man-Machine Interaction
- Mathematical Statistics
- Aerospace and Data Systems
- Transportation Systems
- Upper Atmosphere Research Satellite (UARS) Computer Support
- Industrial Administration
- Energy and Environmental Systems
- Civil Engineering
- Solid State Science
- Mechanical Engineering
- Qualitative Evaluations and Policy Analysis
- Chemical Engineering
- Analytical Chemistry

- o Staff has provided diversified professional services number of clients, which include private domestic and foreign firms, federal agencies, national laboratories, and state and foreign governments.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 19 (see also 22, 27)

Company Name: Princeton Economic Research Institute (PERI), Inc.

Address: 900 State Road
Princeton, NJ 08540

Telephone: (609) 924-8891

Principal Name: S. Basheer Ahmed

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1980-1982: \$41,000 (1981 best year so far).

Year Founded: June, 1980

8(a) Status: Certified

No. Professional Staff: Full-time 2

Part-time 2

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

- | | |
|---|---|
| (1) Supply and demand forecasting
(energy-related)..... | 3 |
| (2) Management consulting..... | 2 |
| a. Financial and Organization Analysis
of a Thermal Utility Plant. | |
| b. Proprietary product research. | |

Minor Fields:

- | | |
|-------------------------------|---|
| (1) Nuclear waste siting..... | 1 |
|-------------------------------|---|

Facilities: On-Site--

- o IBM Display Writer.

Access To--

- o conference rooms, computer facilities, report reproduction and graphic services.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Mechanical Technology, Inc. (purchase orders), J. Palmer,
(609) 234-3880 ext. 211

Details of Professional Staff:

Name: S. Basheer Ahmed

Degree: Ph.D., Economics, Texas A & M University

Years Experience: 20

Fields: For Oak Ridge National Laboratory: Nuclear desalination complexes; cost/benefit analyses of nuclear and fossil plants; economic studies of geothermal, solar, and fusion energy systems, and the energy conservation aspects of modular integrated utility systems.

For Oak Ridge Associated Universities and others: developed systems framework for energy forecasts; economic analysis of electric energy systems; manpower forecasts; regional energy systems; and waste heat recovery for energy conservation.

Associate Editor, IEEE Transactions on Systems, Man and Cybernetics

Member of IEEE Energy Committee

Fellow, AAAS

Member, AEA; ORSA; ANS

Listed in Who's Who in Technology Today; Who's Who in Engineering

Single-time Clients:

- o Office of Nuclear Waste Isolation, U.S. Department of Energy,
J. Finley (614) 421-4370
- o RCA, J. Stranix (609) 734-2516

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 19 (see also 14, 15, 27)

Company Name: Scientific Systems, Inc.

Address: 54 Rindge Avenue Extension
Cambridge, MA 02140

Telephone: (617) 661-6364

Year Founded: September, 1976

8(a) Status: Certified

Principal Name: Raman K. Mehra

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$2 Million

Growth Pattern: 33% one-year increase in dollar volume in 1980;
25% in 1981; and 20% in 1982

No. Professional Staff: Full-time 40

Part-time 5

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Probabilistic Risk Assessment..... 4

Minor Fields:

(1) Electrical Engineering..... *

(2) Electronics Engineering..... *

(3) Regulatory Analysis..... *

Repeat Clients:

U.S. Department of Energy, Ray Dunlap (202) 252-1165

*See professional staff experiences.

Facilities: On-Site--

- o Branch office in Dallas, Texas
- o 14,000 square feet of office space.
- o VAX 11/780 computer.

Access To--

- o Computers at Harvard University.

Single-time Clients:

None

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Details of Professional Staff:

Name: Raman K. Mehra, President

Degree: Ph.D., Control Systems Theory

Years Experience: 15

Fields: Control system design, computer simulation, stability analysis, optimal control and estimation, numerical solution of optimization problems; system identification, adaptive and stochastic control, time series analysis, fault detection and diagnosis using operating data.

Notes:

- o Worked on the design of autopilots for aircraft, using modern control theory. Dissertation research concerned with the application of optimum smoothing and conjugate gradient methods to inertial navigation and aerospace problems. Member of a technical staff responsible for applying estimation and control theory to inertial navigation systems. Developed several computer programs for optimum filtering, smoothing and identification of linear dynamic systems. Has developed a new approach for obtaining optimal inputs to identify linear dynamic systems, and to design adaptive control systems for complex industrial processes. Numerous publications (100+).

Name: Donald J. Gustafson, Vice President

Degree: Ph.D., Engineering

Years Experience: 21

Fields: Biomedical special: modern estimation and detection theory, biomedical systems, stochastic control systems, pattern recognition, dynamic system modeling, numerical optimization, software system development, computer simulation.

Notes:

- o Has participated in the design of guidance control systems for Polaris; statistical analyses of missile guidance and navigation errors. Has conducted studies in strategic systems analysis and developed comprehensive six-degree-of-freedom dynamic simulations for missile analysis.

Name: Alex L. Kosciela

Degree: B.S.

Years Experience: 20

Fields: Software development; post-graduate experimental work in the field of low temperature physics, investigating applications of superconductivity.

Details of Professional Staff: (Continued)

Notes:

- o Before joining this company, directly responsible for several software development efforts for the Air Force and for NASA: Responsible for the first guided Apollo missions and helped establish the techniques of software integration and verification that were employed on this and subsequent missions.

Name: John Baillieul

Degree: Ph.D., Applied Mathematics

Years Experience: 24

Fields: Algebraic systems theory; ordinary differential equations; stochastic control and optimal control.

Notes:

- o Has been involved in biomedical research -- pattern recognition, simulation of drug interactions, and the development of information theoretic models of medical diagnosis. Developed most of the software for the standard numerical functions in a MUMPS computer system. Recent research focuses on modeling problems for large scale systems, design and stability analysis of circuits, and control of nonlinear systems. Project manager on several DOE projects on transient stability analyses and security assessment for power systems.

Notes:

- o A SECRET facility clearance has been granted by the Defense Logistics Agency, Boston, MA (FSC #2N787).
- o Other Professional Staff Fields:
 - Control systems theory and rigid body dynamics
 - Mathematics
 - Statistics
 - Engineering physics
 - Economic systems
 - Chemical engineering
 - Electrical engineering
 - Mechanical engineering

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 19 (see also 10, 24)

Company Name: The Maxima Corporation

Address: 7315 Wisconsin Avenue, Suite 900 North Building
Bethesda, MD 20814

Telephone: (301) 652-6366

Year Founded: 1978

8(a) Status: Certified

Principal Name: Kurt Snapper

Title: Corporate Vice President

Average Gross Receipts (3 yrs):

Growth Pattern: In 5 years, staff grew from 5 to 300.

No. Professional Staff: Full-time 300

Part-time

Capabilities and Experience of Firm:

Facilities: On-Site--

Major Fields:

No. of Contracts:

(1) Decision Theory.....	5
(2) Game Theory applies to: energy supply; supply disruptions; safeguards; human error probability.....	3

- o Computer Center with: HP1000 minicomputer; ARTEMIS software with color graphics display capability; computer-aided design programs.
- o Safeguarding procedures approved for storage of SECRET materials.
- o Training center (AV).
- o Reference library.
- o Word processing, photo reproduction and binding facilities.
- o Full-time courier service.
- o Survey operations center with toll-free lines.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o NRC/ONRR/Division of Facility Operations

Details of Professional Staff:

Name: Kurt J. Snapper
Degree: Ph.D. Decision Theory (Experimental Psychology)
Years Experience: 10
Fields: Bayesian statistics; probabilistic inference; utility and decision analysis; human factors; safeguards and security; environmental decision making

Name: William G. Stillwell
Degree: Ph.D. Psychology (Quantitative)
Years Experience: 7 (2 post-doctorate)
Fields: Decision analysis; risk analysis; game theory; utility analysis.

Name: David A. Seaver
Degree: Ph.D. Mathematical Psychology
Years Experience: (4 post-doctorate)
Fields: Evaluation methodology; decision-theory; policy analysis; risk analysis; human factors.

Name: Donald G. Jacobs
Degree: Ph.D. Agronomy
Years Experience: 25
Fields: Assessment of environmental impacts of energy production; management of nuclear waste; environmental health; health physics

Single-time Clients:

- o General Physics Corp./Sandia National Laboratory
- o U.S. Forest Service
- o U.S. Department of Energy

Notes: Key staff hold Q and DOD clearances.

Quality Assurance

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 20 (see also 6, 10, 19)

Company Name: Engineering & Economics Research, Inc.

Address: 1951 Kidwell Drive
Vienna, VA 22180

Telephone: (703) 893-8600

Year Founded: 1979

8(a) Status: Certified

Principal Name: Harpal S. Dhillon

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: No information

Growth Pattern: 68% one-year growth rate in 1981;
42% in 1982; and 59% in 1983

No. Professional Staff: Full-time 110

Part-time 8

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Quality Assurance..... 4

Minor Fields:

(1) Regulatory Analysis..... 7
(2) Reliability..... 4
(3) Statistics..... 6

Facilities: On-Site--

- o Maintains two locations with executive offices, professional staff and business offices, library, meeting facilities.
- o Prime 750 computer which contains a core memory of 2 million bytes, disk space of 300 megabytes, and a tape drive backup, 12 IBM personal computers, a Wang 2200, an Osborne and a Dynabyte DB8/2 computer.
- o The prime supports 6 TAB terminals, a high speed Printomex 600 line printer; and a Zeta color graphics plotter. At maximum configuration the computer will support 128 terminals.

Access To--

- o Has available two remote terminals with access to PRCS time-sharing mainframe (IBM 360/91).

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Environmental Protection Agency, T. Kuntson (202) 382-2794
- o Department of Energy, Fred Able 252-9398
- o CH2M Hill, Inc., W. Sellman (703) 620-5200
- o National Aeronautics and Space Administration, J. Gitelman (301) 344-6488
- o Department of Defense
- o Department of Transportation
- o National Oceanographic and Atmospheric Administration, R. Norling (202) 254-3483
- o Federal Emergency Management Agency, G. Orrell (202) 287-0036
- o Federal Aviation Administration, G. Booth (202) 426-3560

Details of Professional Staff:

Name: Harpal S. Dhillon, President

Degree: Ph.D., Industrial Engineering and Operations Research

Years Experience:

Fields: Systems analysis and design; mathematical programming; strategic, technological and economic evaluation of programs for energy, resources and environment; cost/benefit analysis; production planning and control; statistics and quality control; and computer applications.

Name: Jai N. Gupta, Executive Vice President

Degree: M.Sc. Electrical Engineering; M.B.A. Business Finance;

Ph.D. Communications Image Processing and Pattern Recognition

Years Experience:

Fields: Aerospace and energy systems.

Name: Morris N. Gunzburg, Vice President

Degree: B.S. Electrical Engineering

Years Experience:

Fields: Product planning and evaluation; corporate management; planning and marketing.

Name: George H. Frederickson, Senior Analyst

Degree: B.A.E. Aeronautical Engineering

Years Experience:

Fields: Systems engineering and analysis; software consultation and programming in applications, including on-line data bases, real time tracking and commanding, weapon system data processing and scientific programming.

Single-time Clients:

- o National Electrical Manufacturers Association
- o Department of Housing and Urban Development
- o Office of Technology Assessment

Note:

o Additional Staff Expertise:

- Human Resource Development
- Space Physics
- Electrical Communications
- Automatic Speech Recognition
- Man-Machine Interaction
- Mathematical Statistics
- Aerospace and Data Systems
- Transportation Systems
- Upper Atmosphere Research Satellite (UARS) Computer Support
- Industrial Administration
- Energy and Environmental Systems
- Civil Engineering
- Solid State Science
- Mechanical Engineering
- Qualitative Evaluations and Policy Analysis
- Chemical Engineering
- Analytical Chemistry

- o Staff has provided diversified professional services to a number of clients, which include private domestic and foreign firms, federal agencies, national laboratories, and state and foreign governments.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 20 (see also 6, 23, 29)

Company Name: Trans Systems Corporation

Address: 160 Maple Avenue, East
Vienna, VA 22180

Telephone: (703) 281-4498
(703) 281-1500

Year Founded: 1976

8(a) Status: Certified

Principal Name: John C. H. Woo

Title: President

Average Gross Receipts (3 yrs):
Dollar Volume, 1982: \$300,000

No. Professional Staff: Full-time 10

Part-time 6

Capabilities and Experience of Firm:

Major Fields: No. of Contracts:^{*}

(1) Quality Assurance.....	5
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Minor Fields:

(1) Safety Analysis.....	**
(2) Waste Management.....	**
(3) Statistics.....	**
(4) Civil Engineering.....	**
(5) Structural Engineering.....	**
(6) Nuclear Reactor (technical translations).....	1

Facilities: On-Site--

- o Three offices: Two in Vienna, Virginia, with 1800 square feet of office space; and one in Burlington, Massachusetts, with 900 square feet.
- o Electric typewriters and word processing equipment at all sites.

Access To--

- o Computer terminals hooked to Boeing Computer Network, Control Data and PRC Systems.

^{*}A representative sample of number of contracts.

^{**}Based on professional staff fields.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Transportation Systems Center, A. A. Tauro (617 494-2421);
G. M. Frederick (617) 494-2180
- o Federal Aviation Administration, R. L. Kopp (202) 426-8250;
W. R. Brown (202) 426-8225; K. W. Heuck (202) 426-8420;
- o Urban Mass Transportation Administration, J. E. Kyle
(202) 755-4980

Details of Professional Staff:

Name: John C. H. Woo, President

Degree: M.S., Industrial Engineering; M.S., Transportation Engineering;
Ph.D. (Candidate) Industrial Engineering

Years Experience: 26

Fields: Systems engineering; computer programming; software design;
human sector and cost-benefit evaluations.

Name: Albert Bebbs

Degree: M.A., Physics

Years Experience: 25

Fields: Nuclear science; research and development; environmental studies;
computer programming.

Name: Barbara Shapiro

Degree: Quantitative Analysis

Years Experience: 8

Fields: Systems analysis; mathematical analysis; cost-benefit analysis.

Name: S. Chowhurdry

Degree: Ph.D., Statistics and Economics

Years Experience: 15

Fields: Computer data base development.

Notes

- o The principals of the firm have over 20 years of professional experience in all phases of systems integration and facility planning, socio-economic and environmental analyses, terminal design and activity network evaluation, and optimization of movement systems. Specialization has also been in requirement surveys, modeling, planning and programming, and data systems management.

Single-time Clients:

- o Nuclear Regulatory Commission (technical translations), C. Abbott
(202) 492-7566

Notes: (Continued)

- o Trans Systems Corporation and its professional staff capabilities include the following:
 - Nuclear Science and Engineering.
 - Systems Integration and Cost Effectiveness Studies.
 - Socioeconomic and Environmental Analyses.
 - Environmental Data Bank (EDB) Development - Full Range.
 - Quick Response Computer Support Tasks.
 - Computerized Program Evaluation Support.
 - Human Factors Engineering and Evaluation.
 - Traffic and Logistic Network Simulation.
 - Energy Efficiency Evaluation in Transportation.
 - Community Development and Citizen Participation.
 - Compatible Land Use Planning and Economic Development.
 - Integrated Multimodal Transportation Planning.
 - Computer Application - Forecasting and Network Simulations.
 - Public Information Systems and Market Development.
 - Safety, Accident Analyses, Statistical Analyses and Surveys.
 - Communication and Brochure Development.
 - Intermodal Transportation Planning.
 - Electric Vehicle Development.
 - Energy Systems Analysis.
 - Solar Energy Applications.
 - International Environment Data Bank.
 - Users Manual and Systems Manual Preparation.



Radioactive Materials

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 21

Company Name: No firms were located with capabilities or experience in the
Radioactive Materials classification.



Regulatory Analysis

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 22 (see also 19, 27)

Company Name: Princeton Economic Research Institute (PERI), Inc.

Address: 900 State Road
Princeton, NJ 08540

Telephone: (609) 924-8891

Year Founded: June, 1980

8(a) Status: Certified

Principal Name: S. Basheer Ahmed

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1980-1982: \$41,000 (1981 best year so far).

No. Professional Staff: Full-time 2

Part-time 2

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

- | | |
|---|---|
| (1) Supply and demand forecasting
(energy-related)..... | 3 |
| (2) Management consulting..... | 2 |
| a. Financial and Organization Analysis
of a Thermal Utility Plant. | |
| b. Proprietary product research. | |

Minor Fields:

- | | |
|-------------------------------|---|
| (1) Nuclear waste siting..... | 1 |
|-------------------------------|---|

Facilities: On-Site--

- o IBM Display Writer.

Access To--

- o conference rooms, computer facilities, report reproduction and graphic services.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Mechanical Technology, Inc. (purchase orders), J. Palmer,
(609) 234-3880 ext. 211

Details of Professional Staff:

Name: S. Basheer Ahmed

Degree: Ph.D., Economics, Texas A & M University

Years Experience: 20

Fields: For Oak Ridge National Laboratory: Nuclear desalination complexes; cost/benefit analyses of nuclear and fossil plants; economic studies of geothermal, solar, and fusion energy systems, and the energy conservation aspects of modular integrated utility systems.

For Oak Ridge Associated Universities and others: developed systems framework for energy forecasts; economic analysis of electric energy systems; manpower forecasts; regional energy systems; and waste heat recovery for energy conservation.

Associate Editor, IEEE Transactions on Systems, Man and Cybernetics

Member of IEEE Energy Committee

Fellow, AAAS

Member, AEA; ORSA; ANS

Listed in Who's Who in Technology Today; Who's Who in Engineering

Single-time Clients:

- o Office of Nuclear Waste Isolation, U.S. Department of Energy,
J. Finley (614) 421-4370
- o RCA, J. Stranix (609) 734-2516



Reliability

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 23 (see also 13, 28)

Company Name: Energy Resources & Planning Inc.

Address: 28 E. Jackson Blvd.
Chicago, IL 60604

Telephone: (312) 922-0220

Year Founded: 1976

8(a) Status: Certified

Principal Name: N. Paul Sood

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$500,000; 1981: \$860,000; 1980: \$100,000
(all figures are approximate)

Growth Pattern: Two peaks in number of contracts/year;
1983 best year to date.

No. Professional Staff: Full-time 9

Part-time -

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Reliability..... 22

Minor Fields:

(1) Energy Studies..... 22

Facilities: On-Site--

- o Office fully furnished for engineering and drafting.
- o IBM computer with communications capabilities, and automatic drafting capabilities.
- o Blueprinting machine and automatic feed copier with sorter.
- o Library of federal, state and local government codes and standards, NRC guides, and industry standards.

Access To--

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o University of Chicago, Dr. Roy Mackal (312) 753-3958
- o Tootsie Roll Ind., John Newlin (312) 581-6100
- o Thornton Community College, Bob Kinsella (312) 596-2000

Details of Professional Staff:

Name: N. Paul Sood

Degree: M.S., Mechanical Engineering

Years Experience: 16

Fields: Heat transfer; thermal transient analysis; process piping systems.

Name: Gordi Chadha

Degree: M.S., Structural Engineering

Years Experience: 24

Fields: Substructure and superstructure design of pre-stressed bridges; post-tensioned systems design for nuclear containment vessels.

Name: Arjun U. Thadhani

Degree: M.S., Mechanical Engineering; ASQC-Certified Quality & Reliability

Years Experience: 14

Fields: Reliability and quality engineering.

Single-time Clients:

- o Lydall, Inc., Dave Clark (203) 646-1233
- o Bagcraft Corporation of America, Bob Blamer (312) 254-8000
- o Mendel Catholic High School, Sam Kayappan (312) 995-3724
- o Commonwealth Edison Corp., Bob Janecek (312) 294-8314
- o American Bakeries Co., Wayde Nieman (312) 454-7400
- o Bendix Corporation, Bob Bussard (502) 695-2100
- o Abbot Laboratories, Chuck Vanhorn (312) 937-6100
- o Production Tool Corp., Heary Brooks (312) 288-4400
- o Ludlow Specialty Papers, George Stricker (312) 753-1140
- o Gutmann & Company, John Sickle (312) 348-5300

Notes:

- o ERP is approved by Commonwealth Edison, Chicago, and Detroit Edison Company, Detroit, for providing AE services for Nuclear Power Plants.
- o Sood: Has done energy technology reviews for MHD, and research on heat transfer and fluid flow in Advanced Gas-Cooled Nuclear Reactor.
- o Chadha: Level III Inspection Engineer per ACI/ASME criteria on concrete pressure components for nuclear service.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: OVERVIEW (see also 6, 20, 23, 29)

Company Name: Trans Systems Corporation

Address: 160 Maple Avenue, East
Vienna, VA 22180

Telephone: (703) 281-4498
(703) 281-1500

Year Founded: 1976

8(a) Status: Certified

Principal Name: John C. H. Woo

Title: President

Average Gross Receipts (3 yrs):
Dollar Volume, 1982: \$300,000

No. Professional Staff: Full-time 10

Part-time 6

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:*

(1) Environmental Impacts.....	13
(2) Quality Assurance.....	5
(3) Reliability.....	5
(4) Transportation.....	6

Minor Fields:

(1) Safety Analysis.....	**
(2) Waste Management.....	**
(3) Statistics.....	**
(4) Civil Engineering.....	**
(5) Structural Engineering.....	**
(6) Nuclear Reactor (technical translations).....	1

Facilities: On-Site--

- o Three offices: Two in Vienna, Virginia, with 1800 square feet of office space; and one in Burlington, Massachusetts, with 900 square feet.
- o Electric typewriters and word processing equipment at all sites.

Access To--

- o Computer terminals hooked to Boeing Computer Network, Control Data and PRC Systems.

*A representative sample of number of contracts.

**Based on professional staff fields.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Transportation Systems Center, A. A. Tauro (617) 494-2421;
G. M. Frederick (617) 494-2180
- o Federal Aviation Administration, R. L. Kopp (202) 426-8250;
W. R. Brown (202) 426-8225; K. W. Henck (202) 426-8420;
- o Urban Mass Transportation Administration, J. E. Kyle (202) 755-4980
- o Federal Railroad Administration, F. L. Mayronne (202) 755-9464;
A. Guy (202) 755-9464
- o Federal Highway Administration, A. Argamon (202) 755-9370
- o Bernard Johnson, Inc., J. Zimmer (301) 493-8400

Details of Professional Staff:

Name: John C. H. Woo, President

Degree: M.S., Industrial Engineering; M.S., Transportation Engineering;
Ph.D. (Candidate) Industrial Engineering

Years Experience: 26

Fields: Systems engineering; computer programming; software design;
human sector and cost-benefit evaluations.

Name: Albert Bebbs

Degree: M.A., Physics

Years Experience: 25

Fields: Nuclear science; research and development; environmental studies;
computer programming.

Name: Barbara Shapiro

Degree: Quantitative Analysis

Years Experience: 8

Fields: Systems analysis; mathematical analysis; cost-benefit analysis.

Name: S. Chowdhury

Degree: Ph.D., Statistics and Economics

Years Experience: 15

Fields: Computer data base development.

Notes

- o The principals of the firm have over 20 years of professional experience in all phases of systems integration and facility planning, socio-economic and environmental analyses, terminal design and activity network evaluation, and optimization of movement systems. Specialization has also been in requirement surveys, modeling, planning and programming, and data systems management.

Single-time Clients:

- o ORI, Inc., J. Bauchspies (301) 565-4924
- o Bureau of Mines, R. J. Simonich (303) 234-4421
- o Kamber Engineering, Inc.
- o Nuclear Regulatory Commission (technical translations), C. Abbott (202) 492-7566
- o National Park Service, D. Sutfin (202) 724-6781
- o D. C. Department of Housing and Community Development,
R. A. Montgomery (202) 724-8686
- o Transource, Incorporated, J. R. Taylor (201) 994-4520

Notes: (Continued)

- o Trans Systems Corporation and its professional staff capabilities include the following:
 - Nuclear Science and Engineering.
 - Systems Integration and Cost Effectiveness Studies.
 - Socioeconomic and Environmental Analyses.
 - Environmental Data Bank (EDB) Development - Full Range.
 - Quick Response Computer Support Tasks.
 - Computerized Program Evaluation Support.
 - Human Factors Engineering and Evaluation.
 - Traffic and Logistic Network Simulation.
 - Energy Efficiency Evaluation in Transportation.
 - Community Development and Citizen Participation.
 - Compatible Land Use Planning and Economic Development.
 - Integrated Multimodal Transportation Planning.
 - Computer Application - Forecasting and Network Simulations.
 - Public Information Systems and Market Development.
 - Safety, Accident Analyses, Statistical Analyses and Surveys.
 - Communication and Brochure Development.
 - Intermodal Transportation Planning.
 - Electric Vehicle Development.
 - Energy Systems Analysis.
 - Solar Energy Applications.
 - International Environment Data Bank.
 - Users Manual and Systems Manual Preparation.



Safeguards

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 24 (see also 10, 19)

Company Name: The Maxima Corporation

Address: 7315 Wisconsin Avenue, Suite 900 North Building
Bethesda, MD 20814

Telephone: (301) 652-6366

Year Founded: 1978

8(v) Status: Certified

Principal Name: Kurt Snapper

Title: Corporate Vice President

Average Gross Receipts (3 yrs):

Growth Pattern: In 5 years, staff grew from 5 to 300.

No. Professional Staff: Full-time 300

Part-time

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) NMMS Reporting Systems Development,
Management and Use..... 8

Minor Fields

(1) Strategic Analysis..... 3

Facilities: On-Site--

- o Computer Center with: HP1000 minicomputer; ARTEMIS software with color graphics display capability; computer-aided design programs.
- o Safeguarding procedures approved for storage of SECRET materials.
- o Training center (AV).
- o Reference library.
- o Word processing, photo reproduction and binding facilities.
- o Full-time courier service.
- o Survey operations center with toll-free lines.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Union Carbide Corporation, Bill Gregg (615) 574-8457
- o Union Carbide Corporation, Computer Service Division

Details of Professional Staff:

Name: Kurt J. Snapper
Degree: Ph.D. Decision Theory (Experimental Psychology)
Years Experience: 10
Fields: Bayesian statistics; probabilistic inference; utility and decision analysis; human factors; safeguards and security; environmental decision making

Name: William G. Stillwell
Degree: Ph.D. Psychology (Quantitative)
Years Experience: 7 (2 post-doctorate)
Fields: Decision analysis; risk analysis; game theory; utility analysis.

Name: David A. Seaver
Degree: Ph.D. Mathematical Psychology
Years Experience: (4 post-doctorate)
Fields: Evaluation methodology; decision-theory; policy analysis; risk analysis; human factors.

Name: Donald G. Jacobs
Degree: Ph.D. Agronomy
Years Experience: 25
Fields: Assessment of environmental impacts of energy production; management of nuclear waste; environmental health.

Single-time Clients:

- o Oak Ridge National Laboratory, W. Bibb (615) 576-0742
- o Sandia National Laboratory, L. Weston (505) 844-2460
- o NRR/ONRR/Division of Facility Operations, A. Barnold, (301) 443-5976

Notes: Key staff hold Q and DOD clearances.

Safety Analysis



NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 25 (see also 6, 27, 28)

Company Name: Chi Associates, Inc.

Address: 2045 N. 15th Street
Arlington, VA 22201

Telephone: (703) 558-3400

Year Founded: 1974

8(a) Status: Certified

Principal Name: Michael Chi

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$600,000-\$700,000; 1983: \$650,000

Growth Pattern: Rising slowly, slight fluctuation

No. Professional Staff: Full-time 12

Part-time 6

Capabilities and Experience of Firm:

Major Fields:

(1) Safety Analysis..... 18

Minor Fields:

(1) Civil Engineering..... 5
(2) Naval Architecture..... 14
(3) Mechanical Engineering..... 2
(4) Transportation..... 1
(5) Hydrology.....

No. of Contracts:

Facilities: On-Site--

- o Horizon North Star minicomputer.
- o Library of scientific programs on numerical methods and techniques.
- o IBM PC plus printer
- o Commodore Microcomputer
- o Tektronix Graphic equipment
- o NEC microcomputer
- o High speed printer
- o Three CRTs
- o QYX word processor

Access To--

- o Time-sharing terminals and batch processing to IBM 360/65, IBM 370/168, IBM 3031, IBM 3033, CYBER 175, CDC 6700, Burroughs 7700, UNIVAC 1108, DEC-10, DEC-20.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Department of Transportation, L. Cayes, HRS-11

Details of Professional Staff:

Name: Michael Chi

Degree: Sc.D., P.E.

Years Experience: 30

Fields: Hydraulics; structural dynamics; transportation engineering.

Name: Norman Lutkefedder

Degree: M.S., P.E. Mechanical Engineering

Years Experience: 20+ years

Fields: Energy and environmental systems.

Name: Ramesh H. Vaishnav

Degree: Ph.D.

Year Experience: 25

Fields: Civil engineering; mechanical engineering.

Name: John R. Burke

Degree: M.S. Chemical Engineering

Year Experience: 25

Fields: Space and transportation

Single-time Clients:

- o National Data Buoy Office

Notes:

- o Additional Professional Staff:

- Morton Taragin, Ph.D. Physics; B.S. Engineering

- M. Toby Shams, Ph.D. Physics

- Arthur E. Hirsch, B.S., M.B.A. Biomechanical Engineer, 25+ years

- Jafar Vossoughi, M.S. Civil Engineering, B.S. Mechanical Engineering

- Nopporn Khaewpong, M.S. Structural Engineering

- Richard P. Nalesnik, Ph.D. Public Administration; Technology Management; M.S. Public Communications; B.S. Engineering Management -- held numerous positions at executive level in various federal agencies -- EPA, Interior, Commerce, NASA.

Field: Environmental Systems Management.

- Hugh Y. H. Yeh, M.S. Naval Architecture; Marine Engineering.

Field: Hydrodynamic Research.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 25 (see also 13, 16)

Company Name: Viking Energy Corporation

Address: 121 N. Highland Avenue, Suite 203
Pittsburgh, PA 15206

Telephone: (412) 363-7777

Year Founded: 1978

8(a) Status: Certified

Principal Name: Jack Saluja

Title: President

Average Gross Receipts (3 yrs):
Dollar Volume, 1982: \$200,000 - \$250,000

No. Professional Staff: Full-time 5

Part-time 10

Capabilities and Experience of Firm:

<u>Major Fields:</u>	<u>No. of Contracts</u>
(1) Safety Analysis	3

Minor Fields:

(1) Nuclear Power Plant Design and Analysis	*
(2) Coal Conversion Studies	*
(3) Environmental (water quality; airborne pollutants) studies	*

*Information not provided.

Facilities: On-Site--

Inhouse:

- Reproduction Facilities.
- Inhouse Reference Library.

Access To--

- o CDC Computer Terminal.
- o Additional facilities available for technical (library) research and computing:
 - University of Pittsburgh Library.
 - Carnegie-Mellon University Facilities.
 - University of Michigan Facilities.
- o Additional Personnel Resources are available from the universities for:
 - Programming.
 - Concepts Development.
 - Graphics.
 - Software Development.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o NASA, Lewis Research Center, Stan Marsick (216) 433-4000
- o Department of Energy, Lloyd Lorenzi (412) 675-6136
- o Nuclear Regulatory Commission
- o USAID/DOE, Dan Bainstock (412) 675-5715
- o Westinghouse Electric, W. Calway (412) 928-2442
R. Mentz (412) 928-2181
- o Flowtran, Inc.

Details of Professional Staff:

Name: Jack Saluja

Degree: Ph.D., Nuclear Engineering

Years Experience: 24

Fields: Nuclear design and analysis of PWR cores; accident analysis of PWR; control systems design and analysis; system modeling.

Name: C. H. Brown

Degree: B.S., Structures

Years Experience: 30

Fields: Structural/stress analytical methods for reactor components and subsystems; structural/mechanical effects of HCDA on reactor vessel and internals; dynamics of structures; high temperature structural design; fatigue and effects of cyclic loading; ANSYS; NASTRAN, MARC.

Single-time Clients:

- o Brown Boveri Compugard, Romesh Wadhvani (412) 787-3000
- o CONSAD Research Corporation, Wilbur Speger (412) 363-5500
- o Pittsburgh Testing Laboratory, David Dunn (312) 449-5050
- o Burns & Roe, Paramus, NJ, J. M. Gans
- o Parameter, Inc., Elm Grove, WI, Richard Lofy (414) 786-7580

Notes:

o Types of services offered

- Analytical Services (mathematical models).
- Review Services in Operating and Non-Operating Plants.
- Breeder Reactor Program Studies.
- Nuclear Waste Management.
- Emergency Planning.
- Risk Analysis.
- Training Services.
- Quality Assurance/Quality Control Services.
- Studies of Power System Capabilities.
- Application of Robots for Decontamination.

o Plus eleven regular consultants, and three associates at:

- Viking Energy - Colorado.
- Pittsburgh Testing Laboratory.
- CONSAD Research Corporation.



Seismology

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 26 (see also 16, 30)

Company Name: Engineering Analysis & Test Company (EA&T)

Address: 2054 Broadway
Santa Monica, CA 90404

Telephone: (213) 829-7817

Principal Name: Raymond Perez

Title: President

Average Gross Receipts (3 yrs):

Professional Services Fees - 1980: \$250,000
1981: \$250,000
1982: \$250,000
1983: \$350,000

Year Founded: 1976

No. Professional Staff: Full-time 5

8(a) Status: Certified

Part-time 2

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Seismology..... 15

Minor Fields:

(1) Seismology Stress Analysis..... 15

Facilities: On-Site--

- o Environmental Test Laboratory (IEEE-323-1974 Equipment Qualification Programs).
- o Portable Field Vibration Test Equipment (IEEE-344-1975 Equipment Qualification Programs).

Access To--

- o Support services contracts with UCLA and CDC for computer time-sharing and analysis program maintenance; Rockwell International Autometrics Division and Structural Dynamics Research Corporation for seismic biaxial and triaxial shake table proof testing capabilities.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Lawrence Livermore National Laboratory, Robert Murray (415) 422-3501

Details of Professional Staff:

Name: Raymond Perez
Degree: B.S., Mechanical Engineering; M.S., Nuclear Engineering
Years Experience: 16
Fields: Nuclear Engineering; Mechanical Engineering; Radiation Waste Management; Safety Analysis; Environmental Analysis; Shielding Analysis; Thermo-Chemical Analysis; Energy Conservation Systems.

Name: Michael B. Perez
Degree: B.A., Economics
Years Experience: 13
Fields: Program Management; Financial Analysis; Cost Accounting; Quality Assurance; Administration; Procurement.

Name: Christina T. Perez
Degree: B.A., Architecture
Years Experience: 10
Fields: Seismic Analysis; Stress Analysis; Equipment Qualification; Structural Design; Environmental Impact Analysis; Facility Design Review.

Single-time Clients:

- o Consip Inc., Al Robinson (213) 692-9021
- o Ronan Engineering Company, Peter Rothermel (213) 883-5211
- o Custom Control Panels, Jeff Domenelli (213) 945-6491
- o Bunker Ramo Corporation, John Cameron (213) 341-0710
- o MCC Powers Regulator Company, Robert Neary (312) 677-9580

Details of Professional Staff: (Continued)

Name: Alfred D. Robinson
Degree: B.S., Science
Years Experience: 40
Fields: Electrochemistry; Electronics; Nuclear Science; Hydraulics; Logic Networks; Instrumentation Systems.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 26 (see also 6, 8, 30)

Company Name: Geo/Resource Consultants
Corporate Headquarters

Address: 1620 Montgomery Street
San Francisco, CA 94111

Telephone: (415) 433-3177

Year Founded: December, 1976

8(a) Status: Certified

Principal Name: Alvin K. Joe, Jr.; R.G., C.E.G.

Title: President and Chief Executive Officer

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$900,000 (est.)

Growth Pattern: Will provide

No. Professional Staff: Full-time 30

Part-time 5

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Seismology..... 18

Facilities: On-Site--

- o Corporate headquarters is located in San Francisco with four branch offices in Seattle, Washington; and Tucson, Arizona; and Washington, D.C.
- o Maintains its soil testing laboratory at its San Francisco and Tucson offices; has its own geophysical equipment and downhole shear wave hammer, and maintains a pool of field equipped vehicles for exploration and field testing purposes.
- o In addition, equipped with computer for word processing and slope design, and has recently developed its own Earthquake Data Bank.
- o Utilizes a portable video camera and video cassette recorder (VCR) for geologic/geotechnical field reconnaissance and documentation and for in-house corporate training programs.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:*

- o Northern Border Pipeline Co., R. Stiles (402) 691-2284
- o San Francisco Public Utilities Commission, P. Matsumura (415) 558-4986
- o Southern California Rapid Transit District,
H. Spellman (213) 795-0461
- o Office of the State Architect, Sacramento, CA,
J. Chan (916) 322-0385
- o San Francisco Redevelopment Agency, H. Taylor (415) 543-8422

Details of Professional Staff:

Name: Alvin K. Joe, Jr., President

Degree: B.S.

Years Experience: 13

Fields: Geology.

Name: Bruce Auld

Degree: M.A.

Years Experience: 17

Fields: Geophysics.

Name: Alan D. Tryhorn, Vice President/Chief Geologist

Degree: B. A.

Years Experience: 11

Fields: Geology.

Name: Fred Chen

Degree: M.S.

Years Experience: 18

Fields: Civil Engineering.

Single-time Clients:*

- o South Tahoe Public Utility District, R. Perisho (916) 366-1701
- o San Francisco Municipal Railway, P. Q. Chin (415) 495-7010

Notes:

- o GRC is a member of the Consulting Engineers Association of California, Association of Soil and Foundation Engineers, Society of American Military Engineers, Soil and Foundation Engineers Association, Asian American Architects and Engineers, and the Association of Minority Consultants. Our professionals regularly publish and present technical papers and are actively involved in the ASCE, AEC, SEG society of Mining Engineers, and the Geological Society of America.
- o The firm's primary expertise lies in the diversified geologic and geotechnical engineering backgrounds of its key professionals. GRC's professional staff has been involved in many geotechnical studies concerning regional geologic and seismic hazards mapping, sedimentation and erosion studies in both inland and coastal areas, stream scour studies across bridge crossings, siting studies for buildings, land-slide classification mapping, pipelines, tunnels, the rehabilitation of historic landmark structures, and dam safety analyses. In addition, GRC's staff has been involved in numerous coastal EIRs, dam and reservoir studies, regional geoplanning studies, landfill engineering studies, hydro site feasibility studies, subways, transmission line and pipeline right of way studies, acid mine drainage studies, economic geologic studies of rock and gravel quarries, and geotechnical studies for co-generation power facilities; and hazardous waste investigations of hydrocarbon contaminated sites and hydrogeologic studies of groundwater basins.

*A representative sample of clients.



Statistics

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 27 (see also 9, 29)

Company Name: Automation Counselors, Inc.

Address: 5728 Industry Lane
P.O. Box 511
Frederick, Maryland 21701

Telephone: (301) 663-3700
(301) 428-2228

Year Founded: 1970

8(a) Status: Certified

Principal Name: Ross Benitez

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$600,000

Average Annual Growth Rate: 30%

Growth Pattern: 50% one-year increase in dollar volume in 1982

No. Professional Staff: Full-time 20

Part-time 4

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:*

(1) Statistics/Health Physics
(Data Processing).....2

Minor Fields:

Facilities: On-Site--

- o 7,400 square feet of office space (2,000 subleased) of modern brick office building includes corporate, management, technical and computer facilities.
- o IBM System 36.
- o Several IBM - PCS.

Access To--

*Over one hundred other clients have been provided, in technical areas not relevant to NRC's indicated needs, (technical assistance in software development, system deficiency evaluations; and management, ranging from needs assessment to staff training).

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Naval Medical Research Institute, Dr. Matthews (202) 295-1121

Details of Professional Staff:

Name: Ross Benitez
Degree: B.A., Education
Years Experience: 22
Fields: Data processing.

Name: Susan Benitez
Degree: Undergraduate work, Mathematics
Years Experience: 22
Fields: Data processing; programming systems development (financial).

Name: Jim Nicholson
Degree: Studied Electrical Engineering
Years Experience: 15
Fields: Scientific programming.

Name: Shalini Survanchi
Degree: B.S., Electrical Engineering; M.S., Biomedical Engineering
Years Experience: 8
Fields: Scientific Programming

Single-time Clients:

None

Notes:

- o Provides data processing services to private industry and government agencies.
- o Applies personalized computer consulting and software services to improve the operations of both large and small clients.
- o Four divisions:
 - Local government -- providing state, county and city entities with a broad range of ADP consulting capabilities.
 - Scientific systems -- offering computer science and consulting skills to support professional staff.
 - Information Services Division -- providing for the information dissemination needs of governmental agencies.
 - Management Information Systems Division -- consulting to meet applications systems requirements.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 27 (see also 6, 25, 28)

Company Name: Chi Associates, Inc.

Address: 2045 N. 15th Street
Arlington, VA 22201

Telephone: (703) 558-3400

Year Founded: 1974

8(a) Status: Certified

Principal Name: Michael Chi

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$600,000-\$700,000; 1983: \$650,000

Growth Pattern: Rising slowly, slight fluctuation

No. Professional Staff: Full-time 12

Part-time 6

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Statistics (includes probabilistic risk assessment and reliability)..... 20

Minor Fields:

(1) Civil Engineering..... 5
(2) Naval Architecture..... 14
(3) Mechanical Engineering..... 2
(4) Transportation..... 1
(5) Hydrology.....

Facilities: On-Site--

- o Horizon North Star minicomputer.
- o Library of scientific programs on numerical methods and techniques.
- o IBM PC plus printer
- o Commodore Microcomputer
- o Tektronix Graphic equipment
- o NEC microcomputer
- o High speed printer
- o Three CRTs
- o QYX word processor

Access To--

- o Time-sharing terminals and batch processing to IBM 360/65, IBM 370/168, IBM 3031, IBM 3033, CYBER 175, CEC 6700, Burroughs 7700, UNIVAC 1108, DEC-10, DEC-20.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Department of Transportation, L. Cayes, HRS-11
- o David Taylor Naval Ship R & D Center

Details of Professional Staff:

Name: Michael Chi
Degree: Sc.D., P.E.
Years Experience: 30
Fields: Hydraulics; structural dynamics; transportation engineering.

Name: Norman Lutkefedder
Degree: M.S., P.E. Mechanical Engineering
Years Experience: 20+ years
Fields: Energy and environmental systems.

Name: Ramesh H. Vaishnav
Degree: Ph.D.
Year Experience: 25
Fields: Civil engineering; mechanical engineering.

Name: John R. Burke
Degree: M.S. Chemical Engineering
Year Experience: 25
Fields: Space and transportation

Single-time Clients:

Notes:

o Additional Professional Staff:

- Morton Taragin, Ph.D. Physics; B.S. Engineering
- M. Toby Shams, Ph.D. Physics
- Arthur E. Hirsch, B.S., M.B.A. Biomechanical Engineer, 25+ years
- Jafar Vossoughi, M.S. Civil Engineering, B.S. Mechanical Engineering
- Nopporn Khaewpong, M.S. Structural Engineering
- Richard P. Nalesnik, Ph.D. Public Administration; Technology Management; M.S. Public Communications; B.S. Engineering Management -- held numerous positions at executive level in various federal agencies -- EPA, Interior, Commerce, NASA.
Field: Environmental Systems Management.
- Hugh Y. H. Yeh, M.S. Naval Architecture; Marine Engineering.
Field: Hydrodynamic Research.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 27 (see also 10)

Company Name: Evaluation Technologies Incorporated (ETI)

Address: 2020 N. 14th Street, Sixth Floor
Arlington, VA 22201

Telephone: (703) 525-5818

Year Founded: 1970

8(a) Status: Certified

Principal Name: Lawyer A. Martin

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1983: \$5 Million

Growth Pattern: Steady for the past 4 years

1980: \$2 Million; 1981: \$3 Million; 1982: \$4 Million

No. Professional Staff: Full-time 175

Part-time 20

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Statistics..... 18

Minor Fields:

(1) Facilities Management..... 6
(2) Information Support..... 6

Facilities: On-Site--

o Headquarters consist of 10,000 square feet of office space, housing corporate, management and finance offices, project teams and ETIS word processing, editorial and graphics departments. There is an in-house Jacquard J100 shared logic minicomputer capable of supporting a wide variety of peripherals, i.e., satellite CRT terminals, printers and disk and tape drives.

Access To--

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Department of Energy, R. Weinrich (301) 258-5300
- o Department of Labor, H. F. Dodge
- o Department of State, Toni Gibbon (202) 235-9309
- o Environmental Protection Agency
Phillip Patterson (202) 697-8237
- o Federal Railroad Administration, Diane Pecor (202) 426-0881
- o U.S. Agency for International Development,
James Jackson (202) 632-9724

Details of Professional Staff:

Name: Lawyer A. Martin, President
Degree: SCHP, Harvard Business School
Years Experience: 21
Fields: Data Processing, Business Management

Name: Michael E. Cohen, Vice President for Professional Services
Degree: B.S., Electrical Engineering
Years Experience: 15
Fields: Research; Evaluation; Training.

Name: William W. Walker, Vice President for Technical Operations
Degree: M.B.A.
Years Experience: 10
Fields: Management, Marketing, Administration

Single-time Clients:

- o U.S. Department of Treasury, Paul Bohoslav (202) 566-8070
- o National Cancer Institute, Robert Bowser (301) 472-8648
- o National Heart, Lung & Blood Institute, Gerald Payne (301) 496-2465

Notes:

- o Specializes in the design, development, and implementation of information systems, computer feasibility studies and long range ADP planning. Has directed a study for the Agency for International Development (AID) to determine the requirements for computer terminals and operated for AID their IBM 370 and related peripheral equipment. Has managed and operated a mini-computer facility for the Department of Agriculture, a telecommunications center for the Department of Energy's headquarters, and provided library scientist and technicians in operations of NASA's Scientific and Technical Information Clearinghouse.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 27 (see also 19, 22)

Company Name: Princeton Economic Research Institute (PERI), Inc.

Address: 900 State Road
Princeton, NJ 08540

Telephone: (609) 924-8891

Principal Name: S. Basheer Ahmed

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1980-1982: \$41,000 (1981 best year so far).

Year Founded: June, 1980

a) Status: Certified

No. Professional Staff: Full-time 2

Part-time 2

Capabilities and Experience of Firm:

Facilities: On-Site--

o IBM Display Writer.

Major Fields:

No. of Contracts:

- | | |
|---|---|
| (1) Supply and demand forecasting
(energy-related)..... | 3 |
| (2) Management consulting..... | 2 |
| a. Financial and Organization Analysis
of a Thermal Utility Plant. | |
| b. Proprietary product research. | |

Minor Fields:

- | | |
|-------------------------------|---|
| (1) Nuclear waste siting..... | 1 |
|-------------------------------|---|

Access To--

- o conference rooms, computer facilities, report reproduction and graphic services.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Mechanical Technology, Inc. (purchase orders), J. Falmer,
(609) 234-3880 ext. 211

Details of Professional Staff:

Name: S. Basheer Ahmed

Degree: Ph.D., Economics, Texas A & M University

Years Experience: 20

Fields: For Oak Ridge National Laboratory: Nuclear desalination complexes; cost/benefit analyses of nuclear and fossil plants; economic studies of geothermal, solar, and fusion energy systems, and the energy conservation aspects of modular integrated utility systems.

For Oak Ridge Associated Universities and others: developed systems framework for energy forecasts; economic analysis of electric energy systems; manpower forecasts; regional energy systems; and waste heat recovery for energy conservation.

Associate Editor, IEEE Transactions on Systems, Man and Cybernetics

Member of IEEE Energy Committee

Fellow, AAAS

Member, AEA; ORSA; ANS

Listed in Who's Who in Technology Today; Who's Who in Engineering

Single-time Clients:

- o Office of Nuclear Waste Isolation, U.S. Department of Energy,
J. Finley (614) 421-4370
- o RCA, J. Stranix (609) 734-2516

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 27 (see also 14, 15, 19)

Company Name: Scientific Systems, Inc.

Address: 54 Rindge Avenue Extension
Cambridge, MA 02140

Telephone: (617) 661-6364

Year Founded: September, 1976

R(a) Status: Certified

Principal Name: Raman K. Mehra

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$2 Million

Growth Pattern: 33% one-year increase in dollar volume in 1980;
25% in 1981; and 20% in 1982

No. Professional Staff: Full-time 40

Part-time: 5

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Statistics..... 4

Minor Fields:

(1) Electrical Engineering..... *

(2) Electronics Engineering..... *

(3) Regulatory Analysis..... *

Repeat Clients:

- o Air Force Human Resource Lab.
- o U.S. Department of Energy, Roy Dunlap (202) 252-1165

Facilities: On-Site--

- o Branch office in Dallas, Texas
- o 14,000 square feet of office space.
- o VAX 11/780 computer.

Access To--

- o Computers at Harvard University.

Single-time Clients:

None

*See professional staff experiences.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Details of Professional Staff:

Name: Raman K. Mehra, President

Degree: Ph.D., Control Systems Theory

Years Experience: 15

Fields: Control system design, computer simulation, stability analysis, optimal control and estimation, numerical solution of optimization problems; system identification, adaptive and stochastic control, time series analysis, fault detection and diagnosis using operating data.

Notes:

- o Worked on the design of autopilots for aircraft, using modern control theory. Dissertation research concerned with the application of optimum smoothing and conjugate gradient methods to inertial navigation and aerospace problems. Member of a technical staff responsible for applying estimation and control theory to inertial navigation systems. Developed several computer programs for optimum filtering, smoothing and identification of linear dynamic systems. Has developed a new approach for obtaining optimal inputs to identify linear dynamic systems, and to design adaptive control systems for complex industrial processes. Numerous publications (100+).

Name: Donald E. Gustafson, Vice President

Degree: Ph.D., Engineering

Years Experience: 21

Fields: Biomedical specialty; modern estimation and detection theory, biomedical systems, stochastic control systems, pattern recognition, dynamic system modeling, numerical optimization, software system development, computer simulation.

Notes:

- o Has participated in the design of guidance control systems for Polaris; statistical analyses of missile guidance and navigation errors. Has conducted studies in strategic systems analysis and developed comprehensive six-degree-of-freedom dynamic simulations for missile analysis.

Name: Alex L. Kosmala

Degree: B.S.

Years Experience: 20

Fields: Software development; post-graduate experimental work in the field of low temperature physics, investigating applications of superconductivity.

Details of Professional Staff: (Continued)

Notes:

- o Before joining this company, directly responsible for several software development efforts for the Air Force and for NASA: Responsible for the first guided Apollo missions and helped establish the techniques of software integration and verification that were employed on this and subsequent missions.

Name: John Baillieul

Degree: Ph.D., Applied Mathematics

Years Experience: 24

Fields: Algebraic systems theory; ordinary differential equations; stochastic control and optimal control.

Notes:

- o Has been involved in biomedical research -- pattern recognition, simulation of drug interactions, and the development of information theoretic models of medical diagnosis. Developed most of the software for the standard numerical functions in a MUMPS computer system. Recent research focuses on modeling problems for large scale systems, design and stability analysis of circuits, and control of nonlinear systems. Project manager on several DOE projects on transient stability analyses and security assessment for power systems.

Notes:

- o A SECRET facility clearance has been granted by the Defense Logistics Agency, Boston, MA (FSC #2N787).
- o Other Professional Staff Fields:
 - Control systems theory and rigid body dynamics
 - Mathematics
 - Statistics
 - Engineering physics
 - Economic systems
 - Chemical engineering
 - Electrical engineering
 - Mechanical engineering

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 27

Company Name: Statistica, Inc.

Address: 51 Monroe Street #608
Rockville, Maryland 20895

Telephone: (301) 424-1911

Year Founded: 1977

8(a) Status: Certified

Principal Name: Riaz P. Rana

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$80,000; 1983: \$300,000

Growth Pattern: 50% one-year increase in dollar volume in 1980;
60% in 1981, and no increase in 1982.

No. Professional Staff: Full-time 7

Part-time 4

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Statistics..... 6
(2) Systems-Data Base Design..... 3

Minor Fields:

Repeat Clients:

- o Bureau of Community Health Services, G. Hendley (301) 443-2750
- o Harry Diamond Laboratories, John D'Agostino (301) 394-1090
- o FAA Technical Center, Mary C. Wright (609) 484-5137

Facilities: On-Site--

- o 2,000 square feet of office space.
- o Micro-computers on site.

Access To--

- o Time sharing with major systems in the area.

Single-time Clients:

- o Federal Highway Administration, A. Argomon (202) 755-9370
- o Federal Aviation Administration, John Dupree
- o Department of Transportation/NHTSA, A. Jones (202) 426-2102

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Details of Professional Staff:

Name: Riaz H. Roma, President

Degree: B.S., Physics/Mathematics; M.S., Program in Mathematical Statistics

Years Experience: 17

Fields: Statistical analysis of continuous and discrete data; sampling survey and design, simulation modeling; operations research, Time Series analysis; Kalman Filtering Application to Econometric Modeling and Forecast Modeling; Reliability, Maintainability and Availability analysis; threat analysis; telemetry data analysis; pattern recognition; and communication command and control analysis.

Name: Richard McLamb

Degree: B.S., Mathematics

Years Experience: 15

Fields: Management, data base; data analysis

Name: Robert Neale

Degree: B.S., Mathematics

Years Experience: 16

Fields: Interactive graphic systems; cartographics data base.

Name: Jerry Ashworth

Degree: None

Years Experience: 17

Fields: Public Administration

Notes:

o Technical sub-areas:

Applied Statistics

- Programmed statistics text development for Highway Traffic and Safety Engineers.
- Statistical methods to yield accurate assessment of submarine launched ballistic missiles.
- Statistical methodology development for weapon systems simulation.
- Forecasting model for health care.
- Statistical survey for post service.
- Computer simulation model.
- Market research survey and technological growth assessment.
- Econometric modeling.

Notes: (Continued)

- Mathematical model development for accidents and safety.
- Manpower forecasting.

Systems Engineering

- Complex systems analysis.
- Systems optimization studies.
- Systems simulation modeling.
- Systems cost effectiveness studies.
- Communications systems engineering.
- Communications network modeling.
- Command, control and communications systems.
- Life cycle analysis.
- Reliability, maintainability, and availability analysis.
- Data communications engineering.
- Radar and navigation systems.
- Systems safety analysis.
- Real time simulation.

Management Information Systems

- Systems software development.
- Data base systems management.
- Advanced system concept and design.
- Computer communications network design.
- Simulation and modeling.
- Graphics generation.
- Strategic planning.
- Business systems development.
- Systems audits.
- Systems security.

Facility Management and Data Services

- Operational computer facilities management.
- Computer operations.
- Manual systems operation and maintenance.
- Hardware/software systems analysis and maintenance.
- Systems programming.

o Staff have knowledge of various high level languages, and experiences in numerous hardware configurations.

Structural Engineering

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 28 (see also 2, 3, 11)

Company Name: Avila Associates Inc.

Address: 6650 N. Northwest Highway, Suite 202
Chicago, Illinois 60631

Telephone: (312) 763-6570

Year Founded: 1975

8(a) Status: Certified

Principal Name: Manuel Frank Avila

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$130,000

Growth Pattern: After a period of minimal change, since 1979,
there was a 31% one-year increase in dollar
volume in 1982.

No. Professional Staff: Full-time 5

Part-time

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Structural Engineering..... 15

Facilities: On-Site--

- o 400 square feet storage area for equipment.
- o 400 square feet for office area.
- o Atari 300 48K (use computers for civil, structural and electrical designs).

Access To--

- o Another firm's IBM 370 on contractual basis.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Illinois Department of Transportation
- o CRS Group Engineers, Inc., A. E. Bredit (312) 297-0400
- o Homer L. Chastion & Associates, W. A. Frick (217) 422-8544
- o Illinois Institute of Technology, L. E. Rolter (312) 567-4707

Single-time Clients:

- o S. G. Hayes & Company
- o Illinois Dept. of Transportation (District #1, 5)
- o Illinois Bell Telephone Co.
- o The Metropolitan Sanitary District of Greater Chicago
- o Department of Public Works (Chicago), H. Ecale (312) 744-3591
- o The Peoples Gas, Light & Coke Company,
R. J. Detlefsen (312) 431-4710
- o U.S. Department of the Interior - Indiana Dunes,
E. Eng (219) 926-7561

Details of Professional Staff:

Name: Manual Frank Avila, P.E.
Degree: B.S.; M.S.
Years Experience: 15
Fields: Civil Engineering; Finance

Name: Robert O. Wesnick
Degree: B.S.
Years Experience: 23
Fields: Civil Engineering

Name: Alfred Bustamonte
Degree: B.S.
Years Experience: 15
Fields: Mechanical Engineering

Name: Francisco Brana 'Nulero
Degree: Ph.D.
Years Experience:
Fields: Chemical Engineer; Operations Research & Energy Management

Notes:

- o Has designed, completed analysis and review of safety related nuclear power pipe supports, etc. Extensive background in FORTRAN which has been used in design projects.
- o Expertise in piping systems design, pressure vessel design, ventilating, air conditioning and machine design.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 28 (see also 6, 25, 27)

Company Name: Chi Associates, Inc.

Address: 2045 N. 15th Street
Arlington, VA 22201

Telephone: (703) 558-3400

Year Founded: 1974

8(a) Status: Certified

Principal Name: Michael Chi

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$600,000-\$700,000; 1983: \$650,000

Growth Pattern: Rising slowly, slight fluctuation

No. Professional Staff: Full-time 12

Part-time 6

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Structural Engineering.....7

Minor Fields:

(1) Civil Engineering..... 5
(2) Naval Architecture..... 14
Mechanical Engineering..... 2
(4) Transportation..... 1
(5) Hydrology..... 1

Facilities: On-Site--

- o Horizon North Star minicomputer.
- o Library of scientific programs on numerical methods and techniques.
- o IBM PC plus printer
- o Commodore Microcomputer
- o Tektronix Graphic equipment
- o NEC microcomputer
- o High speed printer
- o Three CRTs
- o QYX word processor

Access To--

- o Time-sharing terminals and batch processing to IBM 360/65, IBM 370/168, IBM 3031, IBM 3033, CYBER 175, CDC 6700, Burroughs 7730, HP19AC 1108, DEC-10, DEC-20.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Department of Transportation, L. Cayes, HRS-11

Details of Professional Staff:

Name: Michael Chi
Degree: Sc.D., P.E.
Years Experience: 30
Fields: Hydraulics; structural dynamics; transportation engineering.

Name: Norman Lutkefedder
Degree: M.S., P.E. Mechanical Engineering
Years Experience: 20+ years
Fields: Energy and environmental systems.

Name: Ramesh H. Vaishnav
Degree: Ph.D.
Year Experience: 25
Fields: Civil engineering; mechanical engineering.

Name: John R. Burke
Degree: M.S. Chemical Engineering
Year Experience: 25
Fields: Space and transportation

Single-time Clients:

- o Prince George's County MD
- o Pennsylvania Department of Transportation, J. McCoy, Harrisburg, PA
- o D. C. Department of Transportation, J. McSweeney (202) 727-1293

Notes:

- o Additional Professional Staff:

- Horton Taragin, Ph.D. Physics; B.S. Engineering
- M. Toby Shams, Ph.D. Physics
- Arthur E. Hirsch, B.S., M.B.A. Biomechanical Engineer, 25+ years
- Jafar Vossoughi, M.S. Civil Engineering, B.S. Mechanical Engineering
- Nopporn Khaewpong, M.S. Structural Engineering
- Richard P. Nalesnik, Ph.D. Public Administration; Technology Management; M.S. Public Communications; B.S. Engineering Management -- held numerous positions at executive level in various federal agencies -- EPA, Interior, Commerce, NASA.
Field: Environmental Systems Management.
- Hugh Y. H. Yeh, M.S. Naval Architecture; Marine Engineering.
Field: Hydrodynamic Research.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 28 (see also 2, 6, 8)

Company Name: Delon Hampton & Associates

Address: 2000 K Street, NW, Suite 300
Washington, DC 20001

Telephone: (202) 293-3666

Year Founded: 1973

8(a) Status: Certified

Principal Name: Delon Hampton

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1983: \$3.4 million

Growth Pattern: 6% avg. increase since 1979

No. Professional Staff: Full-time 80

Part-time -

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Structural Engineering.....67

Facilities: On-Site--

- o Offices in Atlanta, Georgia; Chicago, Illinois; Los Angeles, Calif; and Rockville, Maryland (Corporate Headquarters): 15,800 square feet.
- o Computer.(Digital PD 11) and Word Processor Equipment

Minor Fields:

Access To--

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Other Clients:

- o Washington Metropolitan Area Transit Authority
- o Metropolitan Sanitary District of Greater Chicago
- o Howard University

Details of Professional Staff:

Name: Delon Hampton, President
Degree: Ph.D., Civil Engineering
Years Experience: 23
Fields: Geotechnical Engineering.

Name: R. Varadarajan (Rajan), Vice President
Degree: Ph.D., Structural Engineering
Years Experience: 22
Fields: Structural Engineering.

Name: John M. Zimmer
Degree: B.C.E., Civil Engineering
Years Experience: 19
Fields: Civil Engineering and Transportation

Name: M. G. Menon
Degree: M.S. C.E.
Years Experience: 10
Fields: Structural Engineering

Single-time Clients:

- o Walt Disney Enterprises
- o National Park Service

Notes:

- o Extensive publications and experience in civil and geotechnical engineering; Registered Professional Engineer in 14 states.
- o Registered Professional Engineer.
- o Registered Professional Engineer in 10 states.
- o Registered Professional Engineer in 2 states.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 28 (see also 13, 23)

Company Name: Energy Resources & Planning Inc.

Address: 28 E. Jackson Blvd.
Chicago, IL 60604

Telephone: (312) 922-0220

Year Founded: 1976

8(a) Status: Certified

Principal Name: N. Paul Sood

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$500,000; 1981: \$860,000; 1980: \$100,000
(all figures are approximate)

Growth Pattern: Two peaks in number of contracts/year;
1983 best year to date.

No. Professional Staff: Full-time 9

Part-time -

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Structural Engineering..... 12

Minor Fields:

(1) Engineering, Construction..... 12

Facilities: On-Site--

- o Office fully furnished for engineering and drafting.
- o IBM computer with communications capabilities, and automatic drafting capabilities.
- o Blueprinting machine and automatic feed copier with sorter.
- o Library of federal, state and local government codes and standards, NRC guides, and industry standards.

Access To--

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o University of Chicago, Dr. Roy Mackal (312) 753-3958
- o Thornton Community College, Bob Kinsella (312) 596-2000

Details of Professional Staff:

- Name: N. Paul Sood
Degree: M.S., Mechanical Engineering
Years Experience: 16
Fields: Heat transfer; thermal transient analysis; process piping systems.
- Name: Gordi Chadha
Degree: M.S., Structural Engineering
Years Experience: 24
Fields: Substructure and superstructure design of pre-stressed bridges; post-tensioned systems design for nuclear containment vessels.
- Name: Arjun U. Thadhani
Degree: M.S., Mechanical Engineering; ASQC-Certified Quality & Reliability
Years Experience: 14
Fields: Reliability and quality engineering.

Single-Time Clients:

- o Lydall, Inc. Dave Clark (203) 646-1233
- o Bagcraft Corporation of America, Bob Blamer (312) 254-8000
- o East View Park Condominium Association, Marge McCarthy (312) 643-4600
- o Ludlow Specialty Papers, George Stricker (312) 753-1140

Notes:

- o ERP is approved by Commonwealth Edison, Chicago, and Detroit Edison Company, Detroit, for providing AE services for Nuclear Power Plants.
- o Sood: Has done energy technology reviews for MHD, and research on heat transfer and fluid flow in Advanced Gas-Cooled Nuclear Reactor.
- o Chadha: Level III Inspection Engineer per ACI/ASME criteria on concrete pressure components for nuclear service.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 28 (see also 2, 6, 11)

Company Name: John E. Foster and Associates, Inc.

Address: 1134 Corrugated Way
Columbus, Ohio 43201

Telephone: (614) 294-5234

Year Founded: March, 1979

8(a) Status: Certified

Principal Name: John E. Foster, P.E.

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$523,154

Growth Pattern: 71% one-year increase in dollar volume in 1981; 40%
in 1982 and 18% in 1983.

No. Professional Staff: Full-time 23

Part-time 8

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Civil Engineering.....	8
(2) Environmental Impacts.....	8
(3) Mechanical Engineering.....	7
(4) Structural Engineering.....	14
(5) Traffic Engineering.....	4

Minor Fields:

(1) Hydrology.....	2
(2) Wastewater Management.....	18
(3) Energy Conservation/Management.....	5
(4) Water Systems Engineering.....	6

Facilities: On-Site--

- o 2,850 square feet of office space in Columbus, Ohio
- o Conference room, library, xerox room, drafting room, engineering design area, environmental planning area, marketing area and administrative area.
- o 2080 square feet of office space in Cleveland, Ohio.
- o Conference room, xerox room, drafting room, engineering design area and administrative area.

Access To--

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Ohio Department of Natural Resources, J. Swartzmiller (614) 265-6948
- o Ohio Department of Transportation
- o City of Columbus, Department of Public Service
- o City of Cleveland, Department of Public Service
- o Cleveland Bridge Improvements, R. Barrish (216) 664-3346
- o U.S. Army Corps of Engineer, Louisville District
- o Franklin County Engineer, J. Circle (614) 462-3030
- o Southerly Wastewater Treatment Plant, Columbus Ohio
- o Jackson Pike Wastewater Treatment Plant, Columbus, Ohio
- o Community Services Administration

Details of Professional Staff:

Name: John E. Foster, P.E.

Degree: Bachelor of Civil Engineering

Years Experience: 27

Fields: Civil Engineering; Structural Engineering; Environmental Engineering

Name: Harry W. Roberts, P.E.

Degree: Bachelor of Civil Engineering

Years Experience: 21

Fields: Civil Engineering; Structural Engineering; Transportation Engineering.

Name: Albert S. Trefts, P.E.

Degree: Bachelor of Mechanical Engineering

Years Experience: 30

Fields: Mechanical Engineering; Process Systems; Systems Engineering

Single-time Clients:

- o Ohio Department of Energy
- o U.S. Department of Interior, National Park Service
- o City of Youngstown, Ohio
- o The Ohio State University
- o City of Bexley, Ohio
- o Central Ohio Transit Authority
- o Cleveland Public Square Improvements
- o Pike Housing Authority, Weatherby (614) 221-8487
- o Scioto Village-Phase II, Weatherby (614) 221-8487
- o Timber Ridge Apartments, Weatherby (614) 221-8487
- o Upper Mill Creek Wastewater Facilities, R. Tibbet (614) 459-2050
- o Blacklick Interceptor Facilities, (614) 888-4953
- o Long Term Solids Handling Facilities, (614) 888-4953
- o Union City Wastewater Treatment Plant
- o Sanitary Sewer Relocation, Monsanto Research Corporation

Notes:

- o Has the capability and credentials, based on accumulated professional, technical and academic accomplishments, to provide a wide range of civil, sanitary, municipal and architectural-engineering services. The scope of services includes investigations, identification of appropriate technologies, report preparation, detail, project design, construction supervision and operational analysis. Professional engineer in Ohio, Michigan and Pennsylvania.
- o Serves as Chief Engineer for the firm. Responsibilities include administration, management and control of production operations, recruitment and marketing activities in the Cleveland area. As Chief Engineer responsible for design, review, quality control and coordination of design activities. Professional Engineer in 3 states.
- o Serves as Chief Mechanical Engineer for the firm. Responsibilities include design, review, production operations and supervision of mechanical engineering design. Extensive experience in oil refining, chemical and synthetic fuels industries.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 28 (see also 6, 13, 29)

Company Name: Mobility Systems & Equipment Company

Address: 6151 W. Century Boulevard Suite 912
Los Angeles, CA 90045

Telephone: (213) 641-3606

Year Founded: 1969

8(a) Status: Current

Principal Name: George J. Adams

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume: 2,400,000.00

Growth Pattern: Upward

No. Professional Staff: Full-time 25

Part-time 0

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Transportation.....	94
(2) Mechanical Engineering.....	37
(3) Structural Engineering.....	18

Minor Fields:

Facilities: On-Site: Offices:

Main Office

6151 W. Century, Suite 912
Los Angeles, CA 90045

Proving Ground Research Center

3401 Etiwanda Boulevard
Mira Loma, CA 91752

Fabrication Facility

9220 Atlantic Boulevard
South Gate, CA 90280

Computer Components:

- o Microcomputer, Dynabyte Model 5505A, 64 K
- o CRT Terminal, Zenith Model Z-19
- o Dot Matrix Printer, NEC 100 CPS, Model 8023A
- o Plotter, Houston Model DPM-2, 8½ x 11 surface
- o Microcomputer, TRS-80 Model 1 level 11,48K
- o Disc Drives, TRS 5¼", .2 Mbyte capacity

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Federal Highway Administration, N. O. Clary (202) 755-9370,
L. D. McCollum (202) 755-9370
- o National Highway Traffic Safety Administration, James Auten
(202) 426-2102, Thomas Starford (202) 426-0607
- o Urban Mass Transportation Authority, John Sulentic (202) 775-4980
- o Fort Belvoir Research and Development Command, Susan Tragresser,
Herb Rothschild (703) 664-4285
- o Toyota Motor Company, LTD., Charles Plennons (213) 618-4726

Details of Professional Staff:

Name: George J. Adams, P. E.
Degrees: Masters of Business Administration
Years Experience: 35
Fields: Transportation, Mechanical Engineering,
Structural Engineering

Name: Lloyd E. Carlson
Degrees: B. S. Mechanical Engineering
Years Experience: 25
Fields: Transportation, Mechanical Engineering,
Structural Engineering

Name: Joe O'Gorman
Degrees: B.S. Mechanical Engineering
Years Experience: 25
Fields: Transportation, Mechanical Engineering

Name: Leroy Hoover
Degrees: P.H.D. Physics
Years Experience: 30
Fields: Structural Engineering

Single-time Clients:

- o Bureau of the Mines, Steven Swan
- o Boeing Aircraft Company
- o Continental Airlines
- o Hughes Aircraft Company, Julie Lyon (213) 517-5024

Notes:

- o Mechanical & Structural Engineering
 - Allen G. Hoffman - Directs assessment and development of projects involving structural strength and mechanical operations.
 - Brian W. Firth - Analyzed & developed mechanical assessments of military wheeled vehicles.
- o Transportation
 - Duncan McKinnen - Chief of Advanced Development Division (DOT), directed programs developing improved technology for urban ground transportation systems.
 - Irwin Rowe - Responsible for the development and management projects related to automated transportation technology, industrial management and development of R & D projects of various types.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 28 (see also 2, 6)

Company Name: Paul Parks and Associates, Inc.

Address: 100 Boylston Street, Suite 815
Boston, MA 02116

Telephone: (617) 415-3688

Year Founded: 1979

8(a) Status: Certified

Capabilities and Experience of Firm:

Major Fields:

(1) Structural Engineering.....	<u>No. of Contracts:</u>	5
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Minor Fields:

(1) Nuclear Engineering Research (in area of aeronautical engineering)	<u>No. of Contracts:</u>	*
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Principal Name: Paul Parks

Title: President

Average Gross Receipts (3 yrs):
Dollar Volume, 1982: \$100,000 to \$250,000
1981: \$100,000 to \$250,000
1980: \$100,000

No. Professional Staff: Full-time 16
Part-time

Facilities: On-Site--

o Parent company located in Boston, Massachusetts; branch offices at 1518 Whittier St. N.W., Washington, D.C. 20012.

Access To--

*Based on corporate and staff experience.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Boston Water & Sewer Commission, F. Gens (617) 426-6046
- o Transportation Systems Center, Department of Transportation, R. Raab (617) 494-2072
- o Army Corps of Engineers, Waltham, Mass.

Details of Professional Staff:

Name: Paul Parks

Degree: Professional Engineer

Years Experience: 25+

Fields: Engineering; education; community development.

Name: John O'S. Francis

Degree: MBA, Ph.D. (in process) Management, Statistics

Years Experience: 25+

Fields: Analytical statistics; health care administration; management science; economic and statistical quality control; cost benefit analysis

Single-time Clients:

- o BOSCOM-FMR Properties, R. Taylor (617) 292-6034
- o Town of Burlington

Notes:

Selected List of Corporate and Staff Experiences.

o Structural and Civil Engineering

- worked on design of hydroelectric systems
- design and development of power plants
- design of drainage systems (Air Base runways)
- design of major buildings
- developed cost estimates of a variety of projects
- reviewed and coordinated structural engineering concepts in connection with building rehabilitation
- planned and implemented case studies about water intrusion in tunnels for urban mass transit
- analyzed destructive vibration on several buildings due to pile driving operations and on sun screens
- designed and supervised construction of sprinkler system in compliance with existing codes and regulations

o Aeronautical Engineering

- Senior Design Engineer on the development and design of the FBU Crusader
- worked on the design and development of the Regulus Missile (a submarine based missile)
- worked on the design of large jet engines including the J57 and J75 (all magnesium alloy engine)
- worked with a team of seven engineers in Nuclear Engineering research attempting to develop a nuclear jet engine.

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Transportation

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 29 (see also 2, 13, 16)

Company Name: AMS Inc.

Address: 8401 Corporate Drive, Suite 610
Landover, Maryland 20785

Telephone: (301) 455-9100

Year Founded: April, 1977

8(a) Status: Certified

Principal Name: Carlton H. Joseph

Title: President

Average Gross Receipts (3 yrs):
Dollar Volume, 1982: \$400,000; Dollar Volume, 1983: \$2.0 million
Growth Pattern: 21% one-year increase in dollar volume in 1980; 9%
in 1981; no growth in 1982; and 80% increase in 1983.

No. Professional Staff: Full-time 30
Part-time 6

Capabilities and Experience of firm:

Major Fields:

(1) Transportation.....15

No. of Contracts:

Facilities: On-Site--

- o 3,500 square feet of office space.
- o Micro computers (Apple and DEC V100)

Access To--

- o IBM 370 Model 195 computer and working relationship with several A.E. firms.
- o Many engineering computer programs covering many areas.
- o IBM 4300, PDP 11 VAX.

Single-time Clients:

Repeat Clients:

- o Department of Transportation, J. Durham (202) 426-4022
- o Federal Highway Admin., H. Lum (703) 285-2021

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Details of Professional Staff:

Name: Carlton H. Joseph, President
Degree: M.S., Engineering Administration
Years Experience: 10
Fields: Computer Science

Notes:

- o Completed all graduate course requirements for a M.S. in computer science. Has for six years been intimately involved in the development and implementation of Information Systems. Responsible for the development and implementation of the Management Information System for the Washington METRO Subway System and WMATA. Was principal project planner for the 906 MW Davis Besse Nuclear unit. Responsible for the design, development and implementation of the start-up testing network-based information system; also, start-up engineering planner for the 8567 MW Millstone Nuclear unit and was computer support analyst for two other units. In this capacity has conducted many environmental studies and has engaged in research projects pertaining to environmental matters. Also assisted in the development of a cost/schedule network based information integrated system for the Potomac generating station.

Name: Mohammed R. Shah, P.E.
Degree: B.S. Civil Engineering; M.S. Structural Engineering
Years Experience: 17
Fields: Civil Engineering; Structural Engineering

Notes:

- o Was responsible for the design and cost evaluation of gravity and reinforced concrete dams. Supervised construction of industrial and commercial buildings, designed reinforced concrete bridges and elevated water tanks and prepared monthly progress reports. Was responsible for design and analysis of some parts of the reactor building for Eastern Nuclear Unit and Brunswick Nuclear Unit. Designed some parts of the drywell and towers, and wrote design criteria for the reactor building with special emphasis on AEC requirements and latest codes. Group leader on PWR Davis Besse Nuclear Units 2 and 3 responsible for "Balance of Plant." Supervised work of ten engineers; geotechnical and environmental reports and wrote specifications for the Safety Analysis Report.

Name: Jack H. Kemeny
Degree: B.Sc. Management Systems & Personnel; B.S. Aerospace Eng
Years Experience: 18
Fields: Cost Engineer

Notes:

- o Aerospace Engineering subfields -- fluid dynamics and aircraft structural & propulsion design. As cost/schedule supervisor, was responsible for supervision of cost and schedule for a number of nuclear power plant projects. Served as cost/schedule Supervisor on the 900 MW Davis Besse Nuclear Plant construction and on a previous 2-unit fossil and 1-unit nuclear power project.

Name: Bing Nan Feng
Degree: B.S., Civil Engineering; M.S. Structural Engineering
Years Experience: 17
Fields: Structural Engineering

Notes:

- o Responsible for structural design and analysis of concrete and steel structures for commercial, industrial and office and apartment buildings, bridges, and highways. As senior engineer, was responsible for design and analysis of structures for a laboratory, nuclear fuel process plant and a fossil fueled power plant. Responsible for design and analysis of structures with special emphasis on loadings.

Notes:

- o In addition to details above, staff also includes:
 - Electrical Engineer
 - Industrial Engineer
 - Nuclear Engineer
 - Civil Engineers (2)
 - Environmental System Engineer
 - Economist

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 29 (see also 14)

Company Name: Applied Systems Institute, Inc.

Address: 1910 K Street, N.W., Suite 600
Washington, D.C. 20006

Telephone: (202) 785-0920

Year Founded: December, 1977

8(a) Status: Certified

Capabilities and Experience of Firm:

Major Fields:

(1) Transportation (data processing).....9

No. of Contracts:

Minor Fields:

(1) Human Factors Engineering.....*
(2) Statistics.....80% of all contracts

*Based on professional staff's experiences and fields

Principal Name: Duk-Joong Won

Title: President

Average Gross Receipts (3 yrs):

Growth Pattern: 248% one-year increase in dollar volume in 1979;
204% in 1980; no growth in 1981; and 117% in 1982.

No. Professional Staff: Full-time 30

Part-time 5

Facilities: On-Site--

- o 5,800 square feet of office space, large conference room and library.
- o In-house computer (DEC VAX 750).
- o Working library containing 2,000 volumes of references, professional journals and up-to-date statistical information.

Access To--

- o On-line independent computer capabilities utilizing major time sharing systems
- o Dependent capabilities employing client computers.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Federal Aviation Administration, G. Mercer (202) 426-3103

Details of Professional Staff:

Name: Duk-Joong Won, President

Degree: Ph.D., Resource Economics

Years Experience: 17

Fields: Optimization techniques, econometrics, project and small business management, management information systems.

Name: Phillip S. Lee, Senior Vice President

Degree: M.S., Computer Science

Years Experience: 13

Fields: Real-time systems; scientific programming and design; development, maintenance of real-time turn-key systems, file management and direct executable compiler; meteorological ground station using various minicomputers and micro-processors.

Name: Benjamin J. Loret, Vice President

Degree: M.B.A., M.S., Astronautics, D.B.A

Years Experience: 22

Fields: Program management; system engineering; and development of large-scale, integrated information systems; MIS design and development; problem solving; economics, energy programs; military command and control; aviation/space, human factors and military RDT&E and weapon system acquisition.

Name: Joe W. Lee, Sr. Economist

Degree: Ph.D., Business Administration

Years Experience: 30

Fields: Regional economics and demographic projections; statistical modeling; input-output analysis; feasibility studies.

Single-time Clients:

- o Secretary of Transportation, J. Duda (202) 426-0975
- o National Maritime Administration, R. Walker (202) 377-4425

Notes:

- o Other staff capabilities:

- Statistics.
- Mathematical analysis.
- Data and file organization and management.
- Program and system optimization and enhancement.
- System management and modification.
- Designing and implementing new computer systems.
- Economic and demographic analysis.
- Forecasting at both the national and regional levels.

- o System and software engineering:

- Meteorological high resolution data processing.
- Image processing.
- Navy SPADe system.
- Automatic picture transmission.
- Telemetry data processing.
- High speed mass storage controller.
- Real-time communications processings.
- Information-on-demand systems.
- Data base management system.
- Mini-computer site management.
- Computerized weather satellite information.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 29 (see also 9, 27)

Company Name: Automation Counselors, Inc.

Address: 5728 Industry Lane
P.O. Box 511
Frederick, Maryland 21701

Telephone: (301) 663-3700
(301) 428-2228

Year Founded: 1970

8(a) Status: Certified

Capabilities and Experience of Firm:

Major Fields:

(1) Transportation.....3

No. of Contracts:*

Minor Fields:

Principal Name: Ross Benitez

Title: President

Average Gross Receipts (3 yrs):
Dollar Volume, 1982: \$600,000

Average Annual Growth Rate: 30%

Growth Pattern: 50% one-year increase in dollar volume in 1982

No. Professional Staff: Full-time 20

Part-time 4

Facilities: On-Site--

- o 7,400 square feet of office space (2,000 subleased) of modern brick office building includes corporate, management, technical and computer facilities.
- o IBM System 36.
- o Several IBM - PCS.

Access To--

*Over one hundred other clients have been provided, in technical areas not relevant to NRC's indicated needs, (technical assistance in software development, system deficiency evaluations; and management, ranging from needs assessment to staff training).

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o U.S. Department of Transportation, Dr. Paul Irick (202) 424-9473

Details of Professional Staff:

Name: Ross Benitez
Degree: B.A., Education
Years Experience: 22
Fields: Data processing.

Name: Susan Benitez
Degree: Undergraduate work, Mathematics
Years Experience: 22
Fields: Data processing; programming systems development (financial).

Name: Jim Nicholson
Degree: Studied Electrical Engineering
Years Experience: 8
Fields: Scientific programming.

Name: Shalini Survanchi
Degree: B.S., Electrical Engineering; M.S., Biomedical Engineering
Years Experience: 8
Fields: Scientific programming.

Single-time Clients:

- o State Department of Transportation:
 - Indiana, Kim Todd (415) 838-2088
 - Maine, Ron Emery (207) 289-3223
 - Maryland, Connie Ridgway (301) 442-2700
 - Michigan, George Wentz (313) 695-7552
 - New Mexico, Bob Ringer (505) 983-0240
 - Oregon, Lance Stapleton (503) 378-2534

Notes:

- o Provides data processing services to private industry and government agencies.
- o Applies personalized computer consulting and software services to improve the operations of both large and small clients.
- o Four divisions:
 - Local government -- providing state, county and city entities with a broad range of ADF consulting capabilities.
 - Scientific systems -- offering computer science and consulting skills to support professional staff.
 - Information Services Division -- providing for the information dissemination needs of governmental agencies.
 - Management Information Systems Division -- consulting to meet applications systems requirements.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 29 (see also 2, 6, 7)

Company Name: Bryant Associates

Address: 1420 N Street NW, Suite 100
Washington, D.C. 20005

Telephone: (202) 232-5192 or 5193

Year founded: 1959

8(a) Status: Certified

Capabilities and Experience of Firm:

Major Fields:

	No. of Contracts:
(1) Transportation.....	4

Minor Fields:

(1) Waste Management.....	5
(2) Water Chemistry.....	5
(3) Hydrology.....	*

Principal Name: Andrew D. Bryant

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$892,000

Growth Pattern: 59% one-year increase in dollar volume in 1981 and 54% in 1982.

No. Professional Staff: Full-time 16

Part-time 4

Facilities: On-Site--

- o Principal office 2,000 square feet.
- o Branch office in Berkeley, California.

Access To--

- o Main frame computer.

*Based on professional staff's experiences and fields

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

Single-time Clients:

- o Poly Tech, Inc., Consultant (216) 696-3141
- o Central Avenue Shopping Center, J. Horning (202) 659-0700
- o Wheeler Road Shopping Center, C. McKenzie (202) 562-2107

Details of Professional Staff:

Name: Andrew D. Bryant, President
Degree: B.A., Architecture
Years Experience: 25
Fields: Architecture

Name: Daniel D. Kim, Vice President
Degree: M.A., Architecture
Years Experience: 16
Fields: Architecture

Name: Galen A. Leek, Vice President
Degree: B.S., Civil Engineering
Years Experience: 30
Fields: Civil Engineering; operations research

Name: Jerry Y. Fujimoto
Degree: B.A., Architecture
Years Experience: 15
Fields: Architecture

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 29 (see also 6, 13, 2E)
Company Name: Mobility Systems & Equipment Company

Address: 6151 W. Century Boulevard Suite 912
Los Angeles, CA 90045

Telephone: (213) 641-3606

Year Founded: 1969

8(a) Status: Current

Principal Name: George J. Adams
Title: President

Average Gross Receipts (3 yrs):
Dollar Volume: 2,400,000.00
Growth Pattern: Upward

No. Professional Staff: Full-time 25
Part-time 0

Capabilities and Experience of Firm:

Major Fields:

	No. of Contracts:
(1) Transportation.....	94
(2) Mechanical Engineering.....	37
(3) Structural Engineering.....	18

Minor Fields:

Facilities: On-Site-- Offices:

Main Office
6151 W. Century, Suite 912
Los Angeles, CA 90045

Proving Ground Research Center
3401 Etiwanda Boulevard
Mira Loma, CA 91752

Fabrication Facility
9220 Atlantic Boulevard
South Gate, CA 90280

Computer Components:

- o Microcomputer, Dynabyte Model 5505A, 64 K
- o CRT Terminal, Zenith Model Z-19
- o Dot Matrix Printer, NEC 100 CPS, Model 8023A
- o Plotter, Houston Model DPM-2, 8 1/2 x 11 surface
- o Microcomputer, TRS-80 Model 1 level 11,48K
- o Disc Drives, TRS 5 1/4", .2 Mbyte capacity

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Federal Highway Administration, N. O. Clary (202) 755-9370, L. D. McCollum (202) 755-9370
- o National Highway Traffic Safety Administration, James Auten (202) 426-2102, Thomas Stafford (202) 426-0607
- o Urban Mass Transportation Authority, John Sulentic (202) 775-4980
- o Fort Belvoir Research and Development Command, Susan Tragresser, Herb Rothschild (703) 664-4285
- o Toyota Motor Company, LTD., Charles Plemons (213) 618-4726

Details of Professional Staff:

Name: George J. Adams, P. E.

Degrees: Masters of Business Administration

Years Experience: 35

Fields: Transportation, Mechanical Engineering,
Structural Engineering

Name: Lloyd E. Carlson

Degrees: B. S. Mechanical Engineering

Years Experience: 25

Fields: Transportation, Mechanical Engineering,
Structural Engineering

Name: Joe O'Gorman

Degrees: B.S. Mechanical Engineering

Years Experience: 25

Fields: Transportation, Mechanical Engineering

Name: Leroy Hoover

Degrees: P.H.D. Physics

Years Experience: 30

Fields: Structural Engineering

Single-time Clients:

- o Bureau of the Mines, Steven Swan
- o Boeing Aircraft Company
- o Continental Airlines
- o Hughes Aircraft Company, Julie Lyon (213) 517-5024

Notes:

o Mechanical & Structural Engineering

- Allen G. Hoffman - Directs assessment and development of projects involving structural strength and mechanical operations.
- Brian W. Firth - Analyzed & developed mechanical assessments of military wheeled vehicles.

o Transportation

- Duncan McKinnen - Chief of Advanced Development Division (DOT), directed programs developing improved technology for urban ground transportation systems.
- Irwin Rowe - Responsible for the development and management projects related to automated transportation technology, industrial management and development of R & D projects of various types.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 29 (see also 6, 20, 23)

Company Name: Trans Systems Corporation

Address: 160 Maple Avenue, East
Vienna, VA 22180

Telephone: (703) 281-4498
(703) 281-1500

Year Founded: 1976

8(a) Status: Certified

Principal Name: John C. H. Woo

Title: President

Average Gross Receipts (3 yrs):
Dollar Volume, 1982: \$300,000

No. Professional Staff: Full-time 10
Part-time 6

Capabilities and Experience of Firm:

Major Fields:

	No. of Contracts:*
(1) Transportation.....	6

Minor Fields:

(1) Safety Analysis.....	**
(2) Waste Management.....	**
(3) Statistics.....	**
(4) Civil Engineering.....	**
(5) Structural Engineering.....	**
(6) Nuclear Reactor (technical translations).....	1

Facilities: On-Site--

- o Three offices: Two in Vienna, Virginia, with 1800 square feet of office space; and one in Burlington, Massachusetts, with 900 square feet.
- o Electric typewriters and word processing equipment at all sites.

Access To--

- o Computer terminals hooked to Boeing Computer Network, Control Data and PRC Systems.

*A representative sample of number of contracts.
**Based on professional staff fields.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Urban Mass Transportation Administration, J. E. Kyle (202) 755-4980
- o Federal Railroad Administration, F. L. Mayronne (202) 755-9464;
A. Guy (202) 755-9464
- o Transportation Systems Center, A. A. Tauro (617) 494-2421;
G.M. Frederick (617) 494-2180

Details of Professional Staff:

Name: John C. H. Woo, President

Degree: M.S., Industrial Engineering; M.S., Transportation Engineering;
Ph.D. (Candidate) Industrial Engineering

Years Experience: 26

Fields: Systems engineering; computer programming; software design;
human sector and cost-benefit evaluations.

Name: Albert Bebbs

Degree: M.A., Physics

Years Experience: 25

Fields: Nuclear science; research and development; environmental studies;
computer programming.

Name: Barbara Shapiro

Degree: Quantitative Analysis

Years Experience: 8

Fields: Systems analysis; mathematical analysis; cost-benefit analysis.

Name: S. Chowhurdry

Degree: Ph.D., Statistics and Economics

Years Experience: 15

Fields: Computer data base development.

Notes

- o The principals of the firm have over 20 years of professional experience in all phases of systems integration and facility planning, socio-economic and environmental analyses, terminal design and activity network evaluation, and optimization of movement systems. Specialization has also been in requirement surveys, modeling, planning and programming, and data systems management.

Single-time Clients:

- o Kamber Engineering, Inc.
- o Transource, Incorporated, J. R. Taylor (201) 994-4520
- o Nuclear Regulatory Commission (technical translations), C. Abbott
(202) 492-7566

Notes: (Continued)

- o Trans Systems Corporation and its professional staff capabilities include the following:
 - Nuclear Science and Engineering.
 - Systems Integration and Cost Effectiveness Studies.
 - Socioeconomic and Environmental Analyses.
 - Environmental Data Bank (EDB) Development - Full Range.
 - Quick Response Computer Support Tasks.
 - Computerized Program Evaluation Support.
 - Human Factors Engineering and Evaluation.
 - Traffic and Logistic Network Simulation.
 - Energy Efficiency Evaluation in Transportation.
 - Community Development and Citizen Participation.
 - Compatible Land Use Planning and Economic Development.
 - Integrated Multimodal Transportation Planning.
 - Computer Application - Forecasting and Network Simulations.
 - Public Information Systems and Market Development.
 - Safety, Accident Analyses, Statistical Analyses and Surveys.
 - Communication and Brochure Development.
 - Intermodal Transportation Planning.
 - Electric Vehicle Development.
 - Energy Systems Analysis.
 - Solar Energy Applications.
 - International Environment Data Bank.
 - Users Manual and Systems Manual Preparation.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 29 (see also 2, 6, 11)

Company Name: Urbitran Associates, Inc.

Address: 15 Park Row
New York, N.Y. 10038

Telephone: (212) 267-6310

Year Founded: 1970

8(a) Status: Certified

Principal Name: Robert B. Lee

Title: President

Average Gross Receipts (3 yrs):
Growth Pattern: 60% one-year rate of growth in 1980;
25% in 1981, and 23% in 1982.

No. Professional Staff: Full-time 94
Part-time 20

Capabilities and Experience of Firm:

Major Fields:

(1) Transportation..... No. of Contracts:* 28

Minor Fields:

(1) Route Location Studies..... No. of Contracts:* 3
(2) Goods Movement..... 4

Clients:**

- o New York City Department of Transportation, Sam Shorts (212) 830-7500
- o New York City Department of City Planning, Richard Todd (202) 565-8505
- o City of Newark, N.J., Fernando Rubio (201) 733-8425
- o New Jersey Department of Transportation, Ross Stevenson (609) 292-6302
- o South West Regional Planning Agency (SWRPA), Conn., Richard Carpenter (203) 866-5543

*Partial number of contracts
**Partial list of Clients; and information on whether repeat or single-time clients not available.

Facilities: On-Site--

- o Regional offices in Washington, DC; Stamford, CT; Los Angeles, CA; Seoul, Korea; San Francisco, CA.
- o Headquarters has about 7,000 square feet of office space.
- o Two micro-computers.

Access To--

- o Mainframe computer.

Clients:** (Continued)

- o Federal Highway Administration, John Fegean (202) 426-9710
- o Urban Mass Transportation Administration, Richard Steinman (202) 426-4004
- o New York State Department of Transportation, John Marino (212) 938-3309

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Clients:** (Continued)

- o Connecticut Department of Transportation, Jim Byrnes (203) 566-4272
- o World Bank
- o Government of Korea
- o City of Caguas, Puerto Rico
- o St. Croix, U.S. Virgin Islands
- o Plateau State, Nigeria

Details of Professional Staff:

Name: Robert B. Lee, President

Degree: Ph.D., Civil Engineering

Years Experience: 20

Fields: Traffic, transportation, environment.

Name: Nicholas Bellizzi, P.E.

Degree: M.A., Civil Engineering

Years Experience: 10

Fields: Highways.

Name: Paul J. Menaker

Degree: Ph.D., System Engineering

Years Experience: 10

Fields: Transit and Transportation; Environmental Systems.

Name: Tim Miller

Degree: B.S., Environmental Planning

Years Experience: 8

Fields: Environmental Services.

Name: Michael Reviv, P.E.

Degree: B.S., Civil Engineering

Years Experience: 10

Fields: Structural Engineering.

Notes

- o Urbitran has worked with some of the nation's leading consulting firms and A-E organizations, providing specialized professional services under various contractual arrangements.

**Partial list of Clients; and information on whether repeat or single-time clients not available.

Clients:** (Continued)

- o Department of Housing and Urban Development
- o Federal Emergency Management Agency
- o U.S. Army Corps of Engineers
- o New Jersey Transit Corporation
- o New York State Metropolitan Transportation Authority
- o New York State Department of Correctional Services
- o New York City Transit Authority
- o County of Essex, New Jersey
- o County of Middlesex, New Jersey
- o City of Buffalo, New York
- o City of Rochester, New York
- o City of Detroit, Michigan
- o North Hempstead Planning Department
- o Norwalk Transit District
- o City of Stamford, Connecticut
- o Port Authority of New York and New Jersey
- o Tri-State Regional Planning Commission
- o Housatonic Valley Council of Elected Officials (HVCEO) Conn.
- o Southeast Michigan Transportation Authority (SEMTA)
- o Niagara Frontier Transportation Authority
- o New York Convention Center Development Corporation
- o New York State Urban Development Corporation
- o New York City Public Development Corporation
- o Mobil Oil Corporation
- o Consolidated Edison Corporation
- o Brooklyn Union Gas Company
- o BA Capital Corporation
- o Academy of Aeronautics, LaGuardia Airport
- o Chasanoff Organization
- o Equitable Life Assurance Company
- o Lieberman Properties
- o Rouse Corporation
- o Fulton Fish Market Cooperative Corporation
- o Flushing Mall Associates
- o Numerous Citizens' Groups, Attorneys and A-E Firms



Waste Management

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 30 (see also 4, 16)

Company Name: E. H. White & Co., Inc.

Address: 245 Clement Street
San Francisco, CA 94118

Telephone: (415) 668-0076

Year Founded: 1971

8(a) Status: Certified

Principal Name: Earl H. White

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$2 million
Growth Pattern: 33% one-year increase in dollar volume in 1980 and periods of no growth since that time.

No. Professional Staff: Full-time 75

Part-time

Capabilities and Experience of Firm:

Major Fields:

	<u>No. of Contracts:</u>
(1) Waste Management.....	8

Minor Fields:

(1) Electrical Engineering.....	0
(2) Mechanical Engineering.....	0
(3) Seismology.....	0

Repeat Clients:

None (in technical areas)

Facilities: On-Site--

- o Offices in San Francisco and Washington, D.C. have in-house computer and word processing capabilities, reproduction, graphics, and workshop/seminar facilities.
- o Staff in both places have software competence and regularly access national commercial databases.
- o In-house databases construction is extensive, as well as broad knowledge of international information systems.

Access To--

- o Both sites have remote access to major computer time sharing systems.

Single-time Clients:

None (in technical areas)

*Technical areas represent a new business direction for the firm and are based solely on professional staff's capabilities and fields. (Provided extensive examples of previous and current large scale and long term contracts mostly in the area of social research.)

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Details of Professional Staff:*

Name: Michael O. Shick

Degree: Ph.D., Physics

Years Experience: 8

Fields: Materials/subsystems testing and evaluation; laser threats and missile vulnerability.

Notes:

- o Worked on projects concerned with: survivability of military systems in prespecified nuclear weapons environment and computational analysis and simulation of material/component response; developed methodology and computer codes to assess vulnerability of missile systems to high energy laser threat; chief consultant to Army Laser Systems Project Office on direction of missile vulnerability program.

Name: Shirish M. Gandhi

Degree: M.S.E.E.; P.E. Engineering

Years Experience: 13

Fields: Engineering; Electrical Power and Control Systems Analyst

Notes:

- o As a consultant and Technical Staff Engineer in the Kansas Gas and Electric Co.'s Nuclear Plant Engineering Department, provided leadership and guidance to a group of 15 process and I.C. Engineers in performance of Design Review, established startup procedures and supported management and coordination of consultants and contractors for the testing of Wolf Creek Nuclear Generating Station; as process engineer researched NRC guidelines and NUREGS and defined instrumentation, channels, tower parameters, computer configurations, peripherals and Nuclear Data Links for design of Emergency Response Facilities, Technical Support Centers and interfaces with Supervisory Control Systems in the Central Control Room. Under the direction of KGE Nuclear Plant Management participated in writing of technical specifications and review of FSAR for Operating License. Coordinated Mechanical & Electrical Groups. On other projects: provided direction of electrical engineering design, recruitment and supervision of staff; provided consultation, design of power system and Process Control for Refinery and Chemical Plants; analysis and design of Neutral Beam Power Supplies for fusion power research experiments; electrical subsystems power systems.

*Staff language competence in Spanish, French, Italian, German, Arabic, Somali, and two dialects of Chinese.

Details of Professional Staff: (continued)

Name: John W. Childress, III

Degree: M.S. Physics, Mathematics

Years Experience:

Fields: Research geophysics; space mechanics; information systems; telecommunications.

Notes:

- o Taught physics and space mechanics; worked on APOLLO, SURVEYOR, BQS-13, CORA, NIPS, TIPS, MIDAS, DIMDS, FABMDS, S-70, NTDS, ATDS, DAMP, GASLIGHT, MINUTEMAN, 480-L, COR, VLA, HULTEC, LRPA, S3A, HA-10, ASB-1, Sidewinder, HILLARD, THURPER, AF EDL, and BAMBI. Also, responsibilities on other projects included: hardware and software design architectures; selection and implementation; verification and validation, and operation and maintenance activities; had responsibilities on the A.F. Laboratory Office Network System deployed at Hancock Field and Rome Air Development Center; completed signal processing for sonar and adaptive HF systems, analysis of intelligence systems and systems analysis. As a Senior Research Geophysicist, a new method of seismic signal enhancement was developed for oil exploration.

Name: Thaddeus W. Dabowicz

Degree: Ph.D., Medical Information and Computer Sciences

Years Experience: 24

Fields: Computer Languages (strong in FORTRAN AND PASCAL) database language and assembler; management sciences; computer applications problem solving and planning.

Notes:

- o Project responsibilities included: specification analyses and evaluation of projects with large capital expenditures; design and development of complex computer based patronage forecasting model fare-demand elasticity studies; computer simulation of systems operations; comparative energy consumption studies; development of a fluidic flowmeter (his own device) for biomedical and other applications; studies of intermodal, inter-operator transit integration practices; studies of private and public transportation on air pollution levels, energy consumption and congestion in major urban areas.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 30 (see also 1, 6, 31)

Company Name: Energy and Environmental Engineering, Inc.

Address: 1B Housignor O'Brien Highway
P.O. Box 215
E. Cambridge, MA 02141

Telephone: (617) 720-3800

Year Founded: October, 1979

8(a) Status: Certified

Capabilities and Experience of Firm:

Major Fields:

(1) Waste Management.....

Minor Fields:

No. of Contracts:

4

Principal Name: James H. Porter

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$850,000

Growth Pattern: 1981: 68% one-year growth rate
1982: 30%

No. Professional Staff: Full-time 9

Part-time 10

Facilities: On-Site--

o 2,000 square feet of office space.

o 300 square feet of experimental chemical laboratory space.

Access To--

¹See experiences of staff person Avijet Ray.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o National Science Foundation
- o Environmental Protection Agency - Harry Turno (202) 382-2552
- Don Carey (202) 426-2355

Details of Professional Staff:

Name: James H. Porter, President
Degree: Sc.D.
Years Experience: 25
Fields: Chemical Engineering.

Name: C. Michael Mohr
Degree: Sc.D.
Years Experience: 25
Fields: Chemical Engineering

Name: Ralph A. Horne
Degree: Ph.D. and J.D.
Years Experience: 25
Fields: Physical Chemistry; Marine Chemistry; Law.

Name: Avijet Ray, Manager Environmental Div.
Degree: M.S.
Years Experience: 9
Fields: Chemical Engineering; Nuclear Engineering.

Single-time Clients:

- o CSI Resource Systems, Inc.
- o U.S. Coast Guard

Notes:

- o Known for the development of new process concepts and for the application of computers for process design and simulation. Has made significant contribution in the fields of fluidization technology, membrane permeation systems; and computerized design and analysis of advanced power cycles. Expert in the design and operation of fluid bed combustors including design of staged fluid used retorting system, the design of fluidized bed steam boilers for oil field flooding, the design and construction of a four foot by nine foot fluid bed steam boiler and the design and testing of TGA facilities for limestone sulfur capture analysis. Extensive publications.
- o Senior Staff Scientist -- prepares environmental impact statements; toxic waste disposal methods; and solar technology expert. As a post-doctoral research associate and fellow, Department of Chemistry and Laboratory for Nuclear Science, MIT, completed fundamental research on radiochemistry and the physical-chemistry solvent extraction and ion exchange.
- o Contribution to research in area of solid waste management in which an in-situ waste containment technology was proposed so as to prevent the flow of leachates from abandoned toxic and hazardous waste sites. Proposed the concept of destruction of toxic chemicals in wastewater by the application of lasers. Also, in area of nuclear engineering, has extensive experience in the treatment of off-gases from nuclear power plants and in nuclear chemistry and radio-chemistry, in particular, the application of radioisotope tracers to physical chemistry and to industrial separation processes including ion exchange and solvent extraction technology.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 30 (see also 16, 26)

Company Name: Engineering Analysis & Test Company (EA&T)

Address: 2054 Broadway
Santa Monica, CA 90404

Telephone: (213) 829-7817

Year Founded: 1976

8(a) Status: Certified

Capabilities and Experience of Firm:

Major Fields:

(1) Nuclear Waste Management.....

No. of Contracts:

6

Minor Fields:

Principal Name: Raymond Perez

Title: President

Average Gross Receipts (3 yrs):
Professional Services Fees - 1980: \$250,000
1981: \$250,000
1982: \$250,000
1983: \$350,000

No. Professional Staff: Full-time 5
Part-time 2

Facilities: On-Site--

- o Environmental Test Laboratory (IEEE-323-1974 Equipment Qualification Programs).
- o Portable Field Vibration Test Equipment (IEEE-344-1975 Equipment Qualification Programs).

Access To--

- o Support services contracts with UCLA and CDC for computer time-sharing and analysis program maintenance; Rockwell International Autometrics Division and Structural Dynamics Research Corporation for seismic biaxial and triaxial shake table proof testing capabilities.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

Single-time Clients:

- o Lawrence Livermore National Laboratory,
Richard Heckman (213) 422-8904
- o Garret Corporation, Don McGrath (213) 323-9500
- o Golder Associates, David Pentz (206) 827-0777
- o Science Applications, Inc., Lee Simmons (714) 454-3811
- o Allied Chemical Company, Phil Nelson (208) 583-1025

Details of Professional Staff:

Details of Professional Staff: (Continued)

Name: Raymond Perez
Degree: B.S., Mechanical Engineering; M.S., Nuclear Engineering
Years Experience: 16
Fields: Nuclear Engineering; Mechanical Engineering; Radiation Waste Management; Safety Analysis; Environmental Analysis; Shielding Analysis; Thermo-Chemical Analysis; Energy Conservation Systems.

Name: Alfred D. Robinson
Degree: B.S., Science
Years Experience: 40
Fields: Electrochemistry; Electronics; Nuclear Science; Hydraulics; Logic Networks; Instrumentation Systems.

Name: Michael B. Perez
Degree: B.A., Economics
Years Experience: 13
Fields: Program Management; Financial Analysis; Cost Accounting; Quality Assurance; Administration; Procurement.

Name: Christina T. Perez
Degree: B.A., Architecture
Years Experience: 10
Fields: Seismic Analysis; Stress Analysis; Equipment Qualification; Structural Design; Environmental Impact Analysis; Facility Design Review.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 30 (see also 6, 8, 26)

Company Name: Geo/Resource Consultants
Corporate Headquarters

Address: 1620 Montgomery Street
San Francisco, CA 94111

Telephone: (415) 433-3177

Year Founded: December, 1976

8(a) Status: Certified

Capabilities and Experience of Firm:

Major Fields:

	<u>No. of Contracts:</u>
(1) Waste Management.....	13

Minor Fields:

Principal Name: Alvin K. Joe, Jr.; R.G., C.E.G.

Title: President and Chief Executive Officer

Average Gross Receipts (3 yrs):
Dollar Volume, 1982: \$900,000 (est.)
Growth Pattern: Will provide

No. Professional Staff: Full-time 30

Part-time 5

Facilities: On-Site--

- o Corporate headquarters is located in San Francisco with four branch offices in Seattle, Washington; Tucson, Arizona; and Washington, D.C.
- o Maintains its soil testing laboratory at its San Francisco and Tucson offices; has its own geophysical equipment and downhole shear wave hammer, and maintains a pool of field equipped vehicles for exploration and field testing purposes.
- o In addition, equipped with computer for word processing and slope design, and has recently developed its own Earthquake Data Bank.
- o Utilizes a portable video camera and video cassette recorder (VCR) for geologic/geotechnical field reconnaissance and documentation and for in-house corporate training programs.

Access To

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:*

- o City of Berkeley, C. Park (415) 526-6432

Details of Professional Staff:

Name: Alvin K. Joe, Jr., President

Degree: B.S.

Years Experience: 13

Fields: Geology.

Name: Bruce Auld

Degree: M.A.

Years Experience: 17

Fields: Geophysics.

Name: Alan D. Tryhorn, Vice President/Chief Geologist

Degree: B. A.

Years Experience: 11

Fields: Geology.

Name: Fred Chen

Degree: M.S.

Years Experience: 18

Fields: Civil Engineering.

Single-time Clients:*

- o East Bay Municipal Utility District #2 - Cogeneration Facilities
- o Bayside Facilities & Crosstown Sewer
- o Richmond Transport System
- o Manteca-Lathrop Wastewater Facilities
- o Livermore Sewage Pipeline
- o Carmel Valley Wastewater Facility
- o Pine Grove Wastewater Facility
- o Sonoma County Relief Sewer
- o Richmond Sewer Tunnel
- o Livermore Wastewater Pipeline

Notes:

- o GRC is a member of the Consulting Engineers Association of California, Association of Soil and Foundation Engineers, Society of American Military Engineers, Soil and Foundation Engineers Association, Asian American Architects and Engineers, and the Association of Minority Consultants. Our professionals regularly publish and present technical papers and are actively involved in the ASCE, AEC, SEG society of Mining Engineers, and the Geological Society of America.
- o The firm's primary expertise lies in the diversified geologic and geotechnical engineering backgrounds of its key professionals. GRC's professional staff has been involved in many geotechnical studies concerning regional geologic and seismic hazards mapping, sedimentation and erosion studies in both inland and coastal areas, stream scour studies across bridge crossings, siting studies for buildings, land-slide classification mapping, pipelines, tunnels, the rehabilitation of historic landmark structures, and dam safety analyses. In addition, GRC's staff has been involved in numerous coastal EIRs, dam and reservoir studies, regional geoplanning studies, landfill engineering studies, hydro site feasibility studies, subways, transmission line and pipeline right of way studies, acid mine drainage studies, economic geologic studies of rock and gravel quarries, geotechnical studies for co-generation power facilities, and hazardous waste investigations of hydrocarbon contaminated sites and hydrogeologic studies of groundwater basins.

*A representative sample of clients.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 30 (See also 2, 10)

Company Name: Geo-Technical Services, Inc.

Address: 851 South 19th Street
Harrisburg, PA 17104

Telephone: (717) 236-3007

Year Founded: 1959

8(a) Status: Certified

Principal Name: James Diaz, REG

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$200,000-\$500,000

Growth Pattern: Fees in same range for past 5 years.

No. Professional Staff: Full-time 28

Part-time

Capabilities and Experience of Firm:

Major Fields: No. of Contracts:

- | | |
|--|---|
| (1) Design of lagoons and/or spray irrigation systems..... | 5 |
| (2) Solid waste disposal..... | 2 |
| (3) Acid mine drainage abatement..... | 4 |

Minor Fields:

- | | |
|--|---|
| (1) Environmental and Engineering Geology: investigation of leachates emanating from abandoned landfill and assessment of future liability to land owners..... | 1 |
|--|---|

Facilities: On-Site--

- o Laboratory.
- o Computer room.
- o Engineering and drafting facilities.
- o Surveying and mapping equipment.
- o Field sampling and recording devices.

Access To--

- o Control Data Corporation Time-Sharing.
- o Boring Computer Services Time-Sharing.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o Pennsylvania Department of Environmental Resources,
N. Batcheler (717) 787-7668
- o New Garden Township Board of Supervisors,
T. Kelleher (215) 268-2915

Details of Professional Staff:

Name: James Diaz, REG
Degree: B.S., Geology
Years Experience: 30
Fields: Administrative management, engineering geology, environmental geology, geotechnical investigation, hydrologic investigation, land use planning, structural foundation design.

Name: Gideon Yachin, P.E.
Degree: M.S., Civil Engineering
Years Experience: 27
Fields: Feasibility studies and economic analysis, hydrologic inventories, hydraulics, waste treatment and drainage studies, storm water management, soils engineering.

Name: Frank H. Pearson
Degree: M.S., Water Resources; Ph.D., Civil Engineering
Years Experience: 9
Fields: Laboratory management, acid mine drainage, computer modeling, laboratory-scale and pilot-scale treatment plants, sanitary engineering, pollution control.

Name: Thomas A. Graupensperger
Degree: B.S., Environmental Resources Management
Years Experience: 6
Fields: Design, construction and operation of surface and groundwater stations, statistical analysis and computer programming, energy conservation surveys.

Single-time Clients:

- o Green Valley Farms
- o Whitland West Apts.
- o Court Field Spring Housing Project
- o Harrisburg East Park private farm

Notes:

The 28 professionals are divided as follows:

Administration.....	1
Architecture.....	1
Civil-Engineering.....	4
Construction Inspection.....	1
Drafting.....	5
Ecology.....	1
Economics.....	1
Electrical Engineering.....	1
Geology.....	2
Hydrology.....	2
Interior Design.....	1
Landscape Architecture.....	1
Sanitary Engineering.....	1
Soils Engineering.....	2
Structural Engineering.....	1
Surveys.....	3

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 30 (see also 6, 11)

Company Name: Waste & Water International

Address: 5850 Shellwood Street, Suite 100
Emeryville, California 94608

Telephone: (415) 428-2381

Year Founded: 1978

8(a) Status: Certified

Principal Name: Akhtar Hamid

Title: Board Chairman

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$1.1 million

Growth Pattern: 26% one-year increase in dollar volume in 1981 and
22% in 1982.

No. Professional Staff: Full-time 15

Part-time

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Waste Management.....28

Minor Fields:

Facilities: On-Site--

- o 2,900 square feet of office space.
- o Library.
- o Apple II and CompuPro computers.
- o 3 Drafting Stations.

Access To--

^oBased on Professional staff's experiences and fields.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o CH2M Hill, D. Evans (415) 652-2426
- o City & County of San Francisco, R. T. Cockburn (415) 558-3394
- o City of Oakland/Piedmont, CA., B. Bauer (415) 273-2000

Details of Professional Staff:

Name: Akhtar Hamid, Principal
Degree: M.S.C.E., Engineering; Ph.D.
Years Experience: 13
Fields: Environmental Engineering

Name: Henry C. Hyde
Degree: M.S.C.E., Sanitary Engineer
Years Experience: 17
Fields: Waste and water management (planning, design, construction and operation of municipal and industrial wastewater systems and water supply facilities).

Name: Peter H. Bellows
Degree: B.S., Civil Engineering; M.S., Sanitary Engineering
Years Experience: 3
Fields: Civil and environmental engineering

Other Professional Staff Fields:

- Civil Engineering (2).
- Water Quality Control Technologist.
- Chemical Engineer.
- Resource Developer.

Single-time Clients:²

- o PBQ6D, Inc., E. Altshuler (415) 986-2929
- o Black & Veatch, H. R. Soennichsen (415) 944-5770
- o Cooper & Clark, R. L. Nedell (415) 235-2360
- o Brown and Caldwell, D. O. Halloy (415) 937-9010
- o Landal Institute, G. Madell (415) 332-4224
- o City of Emeryville, M. Buell (415) 658-8901
- o North San Mateo Sanitation Dist., P. Archuleta (415) 755-6557
- o City of Palo Alto, S. Hayashi (415) 329-2598
- o East Bay Dischargers, Authority (415) 278-5910
- o GHP Associates, Inc., L. Mansfield (808) 841-4112
- o Contra Costa Sanitary District, J. McCoy (415) 934-6727
- o Vallejo Sanitation & Flood Control, D. Sherzinger (707) 252-9217
- o City of Arcata, F. Klopp (707) 822-5951
- o U.S. Environmental Protection Agency, R. Bowker (513) 684-7611
- o City of Santa Rosa, M. Steele (707) 576-5141

Notes:

- o Specific experience related to industrial waste includes: development of a cost recovery program for a city; an industrial use ordinance for approximately 1,500 industries; and a program for determining the impact of priority pollutants from industrial, domestic and commercial sources and the wastewater treatment plant processes and receiving waters of the city.
- o Specific experience related to industrial waste control includes: determination of the impact of trace materials and other industrial pollutants on wastewater sludge quality; industrial waste load allocations; survey and monitoring programs; preparing pre-treatment recommendations; and wastewater treatment sludge management and on-site wastewater systems.
- o Examples of staff water studies related experience: water supply master plan for two cities; geohydrologic groundwater studies; and groundwater geohydrology.

²Representative sample of clients.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 30 (see also 1, 2, 6)

Company Name: Wch Industries, Inc.

Address: 14 Felton Street
Waltham, MA 02154

Telephone: (617) 894-7022

Year Founded: 1978

8(a) Status: Certified

Principal Name: William Clark Harrison

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$320,000

Growth Pattern: 50% one-year rate of growth in 1982;
36% in 1983

No. Professional Staff: Full-time 20

Part-time 23

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Waste Management..... 10

Minor Fields:

Repeat Clients:

- o U.S. EPA**
- o U.S. Army (Watertown, MA)**

Facilities: On-Site--

- o 8,000 square feet of office space.
- o A branch office in Washington, DC (500 square feet).
- o Conference room; library
- o Fully equipped with electronic office equipment.
- o Drafting equipment.

Access To--

- o Computer terminal.

Single-time Clients

- o Environmental Services (Annapolis MD)**
- o Lynn Regional Water (MA) [via Clinton-Bogert], David Ziaks (201) 944-1676
- o City of Brockton, MA; Fry, Spottford, Thorndike, George Reece (617) 863-8300
- o New York Environmental Facilities Corp., Albany, NY**
- o R. I. Dick & Associates**
- o Ft. Lauderdale Sewage (FL)**

**Professional staff experience.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Details of Professional Staff:

Name: John H. Baratta, Vice President/Chief Engineer

Degree: U.S. Civil Engineering; U.S. Work/Sanitary Engineering

Years Experience: 48

Fields: Directing and coordinating planning and design engineering; supervises professional design specialists (architecture, landscape architecture, HVAC, electrical and civil engineering; wastewater treatment, transportation engineering, utility systems, hazardous waste, ocean/harbor/canal engineering, municipal engineering, water resources and urban design); designs wastewater/sewage/drainage facilities; constructing pumping stations, and other treatment facilities; cost analysis and administering construction contracts.

Name: Bill Barrison, President

Degree: B.S., B.S., & Ph.D., Environmental Biology

Years Experience: 25

Fields: Expertise in materials engineering, nuclear weapons operations, developmental research, system analysis, intelligence and security operations.

Name: Bruce D. Norman, Senior Facility Engineer

Degree: Electrical Engineering and Aeronautical Engineering Courses

Years Experience: 21

Fields: HVAC analysis; energy use; energy optimization; general operations supervision.

Name: James W. Johnson, Senior Sanitary Engineer

Degree: U.S., Sanitary Engineering; Ph.D. Applied Science

Years Experience: 15

Fields: Chemical sludge and hazardous material disposal; industrial wastewater surveys; and design and study of wastewater treatment facilities.

**Professional staff experience.

Details of Professional Staff: (Continued)

Name: Sidney Levin, Senior Safety and Health Engineer

Degree: B.S. Physics; U.S. Work

Years Experience: 51

Fields: Safety and health engineer; radiological safety, hazardous waste management; environmental assessment, control and modeling; Nuclear Regulatory Commission Licensing. Recognized nationally for his knowledge and expertise in the safety aspects of completed uranium processing.

Notes:

o Additional Staff Fields

- Chemical Engineering (2)
- Civil Engineering (2)
- Mechanical Engineering (2)
- Mathematics/Physics
- Electrical Engineering (2)
- Physics (2)
- Sanitary Engineer
- Work (2)
- Data Processing Training Specialist
- Administrative Management
- Geophysics
- Economics (2)
- Theory and Administration
- Urban and Environment Architect
- Environmental Engineer (5)
- Data Base Manager
- Systems Engineer

Water Chemistry

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: II (see also 6, III)

Company Name: Cor, Inc.

Address: 105 N. Virginia Avenue
Falls Church, Virginia 22046

Telephone: (703) 534-0011

Year Founded: 1979

8(a) Status: Certified

Principal Name: Phan Chopra

Title: President

Average Gross Receipts (3 yrs):
May be obtained through Dun & Bradstreet, Inc. in
Allentown, PA

No. Professional Staff: Full-time 65

Part-time 2

Capabilities and Experience of Firm:

Main Service: No. of Contracts:

(1) Water Resource Analysis..... 2

Other Fields:

(2) Nuclear Engineering..... 2

(3) Nuclear Reactor..... 2

(4) Solar Heating and Cooling..... 1

(5) Energy Management Support..... 1

(6) Engineering Support Services..... 10

Facilities: On-Site--

- o 12,000 square feet of program office space (in Falls Church).
- o Four operations centers (Lexington Park, Maryland; King George, Virginia; San Diego, California; Sierra Vista, Arizona).
- o Branches and field offices in four states.
- o Large and small conference rooms.
- o Xerox copiers and telecopiers.
- o IBM System 36 minicomputer.
- o Three Intertec "Superbrain" microcomputers with Word Processing and other software.
- o DTI terminal.
- o Other equipment.

*Based on experience and education of professional staff.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o U.S. Coast Guard, Richard Spencer
- o Argonne National Laboratory, Department of Energy, Nancy Duncan, ANL
- o U.S. Army Coastal Engineering Research Center Mary Wrenn, CERC
- o Naval Surface Weapon Center, White Oak Lab, Dennis Hunt, NSWC

Details of Professional Staff:

Name: Phan Chopra, President

Degree: PhD (Studies Toward), M.S.E.,
Naval Architecture and Marine Engineering

Years Experience: 17

Fields: Engineering Management, Hydrodynamics

Notes:

- o Over 17 years of progressive engineering management, consulting and research experience. Expertise in the fields of hydrodynamics ocean systems, design ship systems engineering, and sonar systems. Conducted floating nuclear power plant study for Con Edison, major wave force studies, systems design of SPRUANCE CLASS destroyers and diversified R & D projects.

Name: Prem Chopra, Vice President

Degree: PhD, Structural Mechanics

Years Experience: 10

Fields: Nuclear Structures and Design.

Notes:

- o Mr. Chopra has 10 years progressive experience in the area of nuclear (structural thermo-mechanical analysis); reactor system design (concrete vessel and steel liner; the reactor core; the core support structures, fuel handling systems; the control rods and drives system, the reactor cooling system and top closures); analysis and design of upgrade fuel elements for modified TREAT reactor. Also directed a technical team

Single-time Clients:

Details of Professional Staff: (Continued - Prem Chopra)

which refined the STF Reactor Concept and prepared cost elements and schedules. In another assignment was responsible for structural and mechanical analysis of fuel elements and components of the core, the reactor and the steam generation plant.

Name: H. Lawrence Dyer

Degree: PhD (Course work completed) M.S.M.E.

Year Experience: 12

Fields: Energy and Environmental Studies

Notes:

- o Progressive research and management experience in the energy and environmental fields specially regulatory issues. Computer simulation modeling; system component studies for nuclear power, was program director for Reactor Engineering Division of ANL; studies on heat transfer limitations for nuclear rocket applications, thermo-chemical and reaction-kinetic studies.

Name: C. A. McComber

Degree: B.A., Business Administration

Years Experience: 24

Fields: Project Management, Computer Systems and Operation

Notes:

- o Extensive project management and management consulting experience for defense agencies and industry. Expertise in organizational, operational and financial planning and quality control of software heavy engineering systems; monitoring and evaluation of performance and productivity improvement.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 31 (see al: 1, 6, 3)

Company Name: Energy and Environmental Engineering, Inc.

Address: 18 Monsignor O'Brien Highway
P.O. Box 215
E. Cambridge, MA 02141

Telephone: (617) 720-3800

Year Founded: October, 1979

8(a) Status: Certified

Principal Name: James H. Porter

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$850,000

Growth Pattern: 1981: 68% one-year growth rate
1982: 30%

No. Professional Staff: Full-time 9

Part-time 10

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Water Chemical..... 3

Minor Fields:

Facilities: On-Site--

o 2,000 square feet of office space.

o 300 square feet of experimental chemical laboratory space.

Access To--

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

- o National Science Foundation
- o Environmental Protection Agency, - Harry Turno (202) 382-2552
- Don Carey (202) 426-2355

Details of Professional Staff:

Name: James H. Porter, President
Degree: Sc.D.
Years Experience: 25
Fields: Chemical Engineering.

Name: C. Michael Mohr
Degree: Sc.D.
Years Experience: 25
Fields: Chemical Engineering

Name: Ralph A. Horne
Degree: Ph.D. and J.D.
Years Experience: 25
Fields: Physical Chemistry; Marine Chemistry; Law.

Name: Avijet Ray, Manager Environmental Div.
Degree: M.S.
Years Experience: 9
Fields: Chemical Engineering; Nuclear Engineering.

Single-time Clients:

- o Roche Bros. Barrel and Drum, Inc.

Notes:

- o Known for the development of new process concepts and for the application of computers for process design and simulation. Has made significant contribution in the fields of fluidization technology, membrane permeation systems; and computerized design and analysis of advanced power cycles. Expert in the design and operation of fluid bed combustors including design of staged fluid used retorting system, the design of fluidized bed steam boilers for oil field flooding, the design and construction of a four foot by nine foot fluid bed steam boiler and the design and testing of TGA facilities for limestone sulfur capture analysis. Extensive publications.
- o Senior Staff Scientist -- prepares environmental impact statements; toxic waste disposal methods; and solar technology expert. As a post-doctoral research associate and fellow, Department of Chemistry and Laboratory for Nuclear Science, MIT, completed fundamental research on radiochemistry and the physical-chemistry solvent extraction and ion exchange.
- o Contribution to research in area of solid waste management in which an in-situ waste containment technology was proposed so as to prevent the flow of leachates from abandoned toxic and hazardous waste sites. Proposed the concept of destruction of toxic chemicals in wastewater by the application of lasers. Also, in area of nuclear engineering, has extensive experience in the treatment of off-gases from nuclear power plants and in nuclear chemistry and radio-chemistry, in particular, the application of radioisotope tracers to physical chemistry and to industrial separation processes including ion exchange and solvent extraction technology.

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Technical Classification: 31 (see also 2, 3, 13)

Company Name: Wilson & Associates, Inc.

Address: 4439 Reading Road
Cincinnati, Ohio 45229

Telephone: (513) 641-2006

Year Founded: 1971

8(a) Status: Certified

Principal Name: Henry Wilson, Jr., P.E.

Title: President

Average Gross Receipts (3 yrs):

Dollar Volume, 1982: \$100,000-\$250,000 in fees for direct Federal work; \$500,000-\$1 Million for all other domestic work.

Growth Pattern: Steady

No. Professional Staff: Full-time 31; 2 professional support

Capabilities and Experience of Firm:

Major Fields:

No. of Contracts:

(1) Sewage collection, treatment
and disposal..... 3

Minor Fields:

(1) Storm water handling & facilities..... 1
(2) Water resources; hydrology; ground water..... 1
(3) Water supply treatment and distribution..... 2

Facilities: On-Site--

o Three fully operational word processing systems; currently investigating the CADD System and an engineering system for analysis and design.

Access To--

NUCLEAR REGULATORY COMMISSION BUSINESS PROFILE

Repeat Clients:

Single-time Clients:

- o Metropolitan Sewer District, Richard Venderhoof (513) 352-4811
- o Black & Veatch, James Latham (913) 967-2000
- o City of Logan County - VTN, Alan Vanhorn (304) 343-5158
- o Engineering Science, Inc., Andy Loven (404) 325-0770

Details of Professional Staff:

Name: Henry Wilson, Jr., P.E.

Degree: A.S., Engineering

Years Experience: over 24 years

Fields: Civil, structural, electrical, and mechanical engineering design and construction administration experience.

Name: Mosea Frazier, P.E.

Degree: B.S. Architecture; M.S. Candidate (Structural Engineering)

Years Experience: over 16 years

Fields: Structural engineering, project management; structural design in reinforced concrete, steel and timber.

Name: Richard H. Mellot, A.I.A.

Degree: B.S., Architecture

Years Experience: over 10 years

Fields: Design, supervision; Project Architect for numerous Commercial and institutional buildings.

NRC FORM 335 12-84 NRCM 1102 3261, 3262		U.S. NUCLEAR REGULATORY COMMISSION		REPORT NUMBER (Assigned by TDC and Vol. No. if any)
BIBLIOGRAPHIC DATA SHEET			NUREG/BR-0081	
SEE INSTRUCTIONS ON THE REVERSE				
2. TITLE AND SUBTITLE			3. LEAVE BLANK	
A Directory of High-Technology 8(a) Firms			4. DATE REPORT COMPLETED	
5. AUTHOR(S)			MONTH YEAR	
Miranda Associates, Inc. staff			June 1984	
7. PERFORMING ORGANIZATION NAME AND MAILING ADDRESS (Include Zip Code)			6. DATE REPORT ISSUED	
Miranda Associates Inc. 4340 East West Highway Bethesda, MD 20814			MONTH YEAR	
10. SPONSORING ORGANIZATION NAME AND MAILING ADDRESS (Include Zip Code)			8. PROJECT TASK WORK UNIT NUMBER	
Office of Small and Disadvantaged Business Utilization and Civil Rights U. S. Nuclear Regulatory Commission Washington, D. C. 20555			9. PIN OR GRANT NUMBER	
11. SUPPLEMENTARY NOTES			11a. TYPE OF REPORT	
13. ABSTRACT (200 words or less)			Administrative	
			12. PERIOD COVERED (inclusive dates)	
<p>The passage of Public Law 95-507 and the issuance of Executive Order dated July 14, 1983 highlights contracting with qualified high-technology 8(a) firms for research and other services as an attractive alternative to the usually lengthy open-competitive procurement. This Directory is designed to assist NRC staff in selecting potential 8(a) contractors for possible award of contractual requirements.</p> <p>The Directory is organized into two (2) main parts. The first provides an overview of the qualified 8(a) firms. The overview gives detailed profiles of technical classification data, client contacts, and information on the professional personnel of each firm. The second is divided into 31 specific technical classification areas. The second part arranges the material provided in the first part by placing each firm in the relevant areas of technical classification.</p> <p>This Directory contains information only on those firms that NRC has sought out who appear to have the capability of performing in 31 of NRC's most recurring high-technology areas.</p>				
14. DOCUMENT ANALYSIS - KEYWORDS DESCRIPTORS			15. AVAILABILITY STATEMENT	
8(a) Business firms			unlimited	
16. IDENTIFIERS OPEN ENDED TERMS			16. SECURITY CLASSIFICATION	
			/This page/	
			/This report/	
			unclassified	
			17. NUMBER OF PAGES	
			18. PRICE	
			N/A	