ENERGY FACILITY
CONTRACTORS GROUP

1999 ANNUAL REPORT

EXECUTIVE SUMMARY

1999 was another great year for EFCOG, with expanding membership and new ways defined by our members for meeting DOE's mission needs more efficiently. During the year, EFCOG focused our policy efforts on achieving Y-2K compliance, advancing contract reform, improving privatization contracting, implementing integrated safety management across the DOE complex, and maintaining core capabilities to meet future missions needs. Finally, we began discussions with INPO regarding how EFCOG might incorporate their lessons learned to further enhance our member companies’ performance.

During the year, our working groups continued their efforts in key areas where exchange of best practices and lessons learned are of benefit. The working groups continued to place an emphasis on working safely and at minimum cost while continuing to improve performance. A key EFCOG objective is to assure that each working group has a clear mission, a DOE sponsor and a target date for completing its activities. In July 1999, the very successful Privatization Working Group delivered its report to DOE, and has since been disbanded. In addition, the ISO 14000 working group was incorporated into the ISM working group, thus reducing the number of active working groups to nine. In 2000, it is EFCOG’s goal to work ever more closely with our DOE sponsors on issues critical to DOE’s mission success, and to make our working groups ever more focused and effective.

As I complete my term as EFCOG chairman, I want to thank each of our members and our DOE sponsors for their hard work, dedication and support over the past three years. I am proud of the accomplishments of our Executive Council and Working Groups, and am confident that EFCOG will continue to provide a valuable service to DOE in the future.

Chairman
Energy Facility Contractors Group
INTRODUCTION

More than a decade ago, EFCOG was formed to provide a means to insure efficiency, improve communication and disseminate common solutions to problems among all members. The benefits derived from this approach include reduced duplication by sharing data sources; direct cost savings or cost avoidance by sharing successful processes, procedures and technical information; cost savings when using information gained from lessons-learned to avoid problems experienced by other EFCOG members; and more effective use of resources when common problems are addressed jointly.

EFCOG continues to seek opportunities to partner with DOE to address critical issues. Over the past year joint efforts have included DOE/EFCOG workshops on criticality safety, chemical safety, integrated safety management, safety analysis, privatization contracting, Price-Anderson compliance, and contract reform. In addition EFCOG continued to conduct implementation impact reviews of requirements documents, and to assist DOE HQ by collecting and summarizing data on key issues.

MEMBERSHIP

Membership in EFCOG has continued to grow, and by the end of calendar year 1999 included 30 DOE contractors. We welcome DynCorp, EG&G Inc., Morrison-Knudson, Fluor Fernald, Foster-Wheeler Environmental, SAIC, and Numatec Hanford Corporation as new members. Membership for 1999 is outlined in Table 1.

The focus for membership in the coming year will be to continue to attract other DOE contractors from all programs and all sectors who can contribute to our lessons learned and performance improvement activities to become members of EFCOG.

WORKING GROUPS

EFCOG had 9 active working groups at the end of 1999, two less than in 1998. This reflects the completion of activities of the Privatization Contracting Out Working Group and incorporation of the ISO 14000 working group into the ISM working group. Table 8 lists the active working groups and subgroups.

Each working group has a charter approved by the Executive Directors, a chairman who oversees the direction of the working group, a membership list of individuals interested in working on the topic, a Sponsoring Director who is the point of contact in EFCOG for approvals, advice, and decision making, and a DOE contact who provides up-to-date information, advice and support in working group maintenance.

CAD/CAE FACILITIES WORKING GROUP

The purpose of the CAD/CAE group is to promote an awareness and understanding of the newest state-of-the-art computer-aided design (CAD) and computer-aided engineering (CAE) hardware/software applications being
used in the architectural, engineering and construction (AEC), facilities
management, infrastructure and geographical information systems (GIS)
environment within the Department of Energy (DOE) complex.

Status

The Geospatial Data and System (GD&S) Guidance document was
completed and became available in the spring of 1999.

The GD&S is in line with the Presidential Order 12906 and meets the
DOE Clearinghouse specification and what they want to accomplish. It is
also compatible with the Tri-Services specification.

During 1999 the working group’s chair resigned. As a result, a current
annual report is unavailable for this group’s activities. An interim chair has
recently been appointed who is currently evaluating the status of the working
group, redefining its purpose and membership, and actively searching for a
permanent chair.

**INFORMATION MANAGEMENT WORKING GROUP**

The IMWG works to foster and promote the interchange of information
among its members and the DOE offices to serve as a forum for DOE
complex-wide information management issues, to strive for consistency in the
implementation of customer requirements and initiatives, and to improve the
quality and responsiveness to requests for information and data.

Status

A special focus for the IMWG has been the Year 2000. Four workshops were
held this year, with invitations extended to sites that are a part of the
Systems of Laboratory Computer Coordinating Council (SLCCC):

- March 11-12, 1998    Mason-Hangar (Pantex)
- September 10-11, 1999 Oak Ridge National Laboratory
- January 12-13, 1999   Lawrence Livermore National Laboratory
- April 19-20, 1999     Los Alamos National Laboratory

By working together, meeting attendees were able to create approaches to
solving problems that would not have been possible by working alone. The
IMWG will hold an annual meeting in late spring to review its purpose and to
share experiences currently facing the various sites. This meeting will
establish the group’s focus for FY2000 and FY2001.
Objectives

- Increase efficiency and effectiveness in the use of and reduce the cost of information management across DOE through information sharing among participating contractors.

- Conduct workshops, organize task groups, and conduct seminars on information management issues that are of interest throughout the EFCOG community.

- Provide a forum to address accepted and emerging standards for information management practices, processes and products that may benefit the EFCOG community.

- Provide advice and make recommendations to DOE on policies, procedures, standards, and architecture pertaining to use of information management.

Areas of Interest

- Share information regarding current issues facing the sites, especially issues relating to computer security.

- Leverage our own collective voice with vendors.

- Serve as a reviewing forum for DOE-wide architecture and standards activities, DOE order guides, and manual development, as needed.

- Serve as a contractor working group/representative for the DOE Information Management Council.

Achievements

- Formed a subgroup to share Y2K issues, practices and achievements.

- Provided a valuable information-sharing forum for people from DOE contractor sites to share information with each other and with their DOE counterparts.

- Assisted DOE with calls for information regarding contractor opinion and practices – all opinions were forwarded.

- IMWG Chair continued as a non-voting member of the DOE IM Council, which created an effective information sharing connection between the DOE IM Council and EFCOG.

**ENERGY EFFICIENCY WORKING GROUP**

EEWG is a working committee of energy management professionals from various DOE/HQ, field, operations and support offices, national laboratories and M&O contractors throughout the DOE complex, whose goal is to promote excellence in energy management through the active exchange of
management and technical information, timely and effective communication, and facilitate the application of information and techniques.

Status

- The top priority for FEMP and EEWG continues to be assisting DOE and other federal agencies in securing private sector financing to fund energy efficiency and infrastructure improvement projects at their facilities using innovative financing mechanisms. This initiative supports FEMP’s overall goal of helping agencies increase energy efficiency, conserve water, promote renewable energy technology use and manage energy costs.

- FEMP’s primary alternative financing procurement vehicles are Super Energy Savings Performance Contracts (ESPC’s). These regional indefinite delivery indefinite quantity (IDIQ) contracts cover each of the six DOE geographical regions, with $750 million contacting capacity each ($4.5 billion total). Any federal agency can issue delivery order projects under these IDIQ contracts. This procurement vehicle provides a mechanism for sites to increase the energy efficiency of their facilities, improve infrastructure, while reducing their energy and related operations and maintenance costs.

- Energy Savings Performance Contracting (ESPC) is a contracting method whereby a contractor incurs the up-front cost of implementing energy cost savings and infrastructure improvement projects, in exchange for repayment through energy and related operations and maintenance cost savings resulting from implementation of the project.

- EEWG is providing support to the Super ESPC initiative by utilizing the pool of the energy efficiency expertise that exists at the national laboratories to assist DOE and other federal agency sites to issue delivery order projects utilizing this innovative procurement vehicle.

- Over $5 million annually will be saved in energy and related operations and maintenance costs through the implementation of ESPC projects at these sites. According to DOE, EEWG has been instrumental in accelerating the process, directly associated with the number of ESPC projects within the Department of Energy and a substantial portion of the savings associated with these efforts is directly attributable to EEWG.

1999 Accomplishments

- Conducted an EEWG workshop in conjunction with GLOBALCON Convention and Exposition sponsored by the Association of Energy Engineers Denver, CO April 5-6, 1999. The workshop included a joint session with DOE’s energy coordinators providing a forum of open discussions between DOE and site M&O contractor energy managers. Agenda items included ESPC legislation update, performance agreements, fuel cell applications, and integrated chiller retrofits. Over 35 energy
efficiency professionals from DOE, US Navy, energy management firms and the National Laboratories participated in the workshop.

- Conducted an EEWG workshop in conjunction with the DOE/FEMP sponsored Energy ‘99 Exposition in Orlando, FL August 25-26, 1999. This was a joint workshop with FEMP’s Super ESPC Project Facilitators discussing common issues associated with improving the process of implementing alternatively financed projects at DOE sites. The workshop included a panel discussion with representatives from Energy Services companies currently developing ESPC projects at DOE site’s to provide feedback on what’s working, what’s not, and opportunities for improvement. The panel included representatives from Duke Solutions, CES Way, Honeywell, EUA Cogenics, Johnson Controls, and Noresco. This forum resulted in a candid discussion identifying issues, barriers and potential opportunities for improving the process of implementing alternatively financed projects at DOE sites. The following day was a working session with DOE/HQ to address issues raised by the ESCO’s. As a result of the discussion, clarification was provided by HQ staff on guidance for DOE ESPC projects. A draft guidance document “Expectations for Alternative Financed projects at DOE sites” for use at project kickoff meetings was also generated.

- Participated in the Laboratories of the 21st Century Workshop, September 8-10, 1999 in Cambridge, MA. The goal was to continue to develop a broader federal agency and private sector information exchange and forum for laboratory facility energy managers.

- Conducted an EEWG workshop in conjunction with DOE’s Annual Pollution Prevention Conference November 15, 1999 in Albuquerque, NM. Approximately 40 people participated in the workshop. New FEMP Director, Beth Shearer participated in the session and communicated her vision of FEMP to provide compressive, customer focused approach to providing assistance to federal agencies in saving energy saving water, promoting renewable energy technologies and managing energy costs.

- EEWG is providing assistance to DOE/HQ in resolving an issue concerning DOE CFO and OMB review of ESPC projects over $750K requiring congressional notification.

2000 Plans

- Our next EEWG workshop is tentatively scheduled for April 17-18, 2000 in New Orleans, LA in conjunction with the Federal Utility Partnership Working Group meeting sponsored by FEMP and The Edison Electric Institute. Tentative agenda items include Utility Energy Services Contracts (UESC), energy supply-side options, electric utility deregulation and restructuring.
Travel restrictions are expected to impact participation in workshops. We will attempt to video conference/tape future workshop sessions when practical.

- We will also conduct an EEWG workshop Aug.21-23, 1999 in conjunction with Energy 2000 Exposition and Workshop in Pittsburgh, PA.

- Also in CY 2000 we will continue to assist DOE FEMP with marketing and implementation of alternative financing mechanisms for energy efficiency and infrastructure improvements projects at DOE sites.

- EEWG will also take a comprehensive customer focused approach responsive to FEMP's vision to assist DOE and federal agency sites increase energy efficiency, conserve water, promote renewable energy technology use and manage energy costs.

- EEWG will continue to assist DOE's Federal Energy Management Program with timely and effective communication between sites, field and operations offices and HQ.

- We will also continue to increase communication and participation of energy management professionals from other federal agencies at workshops to extend the pool of knowledge available to support DOE's energy management initiatives.

**Integrated Safety Management Working Group**

The ISMWG’s purpose is to promote excellence in the development, implementation and validation of Integrated Safety Management (ISM) programs and processes by sharing information and lessons learned, and, by facilitating in the application of ISM information and techniques at Department of Energy sites.

**Objectives**

- Promote, coordinate and facilitate the active exchange of successful programs, practices, procedures, lessons learned and other pertinent information of common interest to ISM;

- Promote ISM awareness and understanding by sharing management and technical information;

- Facilitate integration of existing Environment, Safety and Health (ES&H) processes and work practices within the framework of ISM;

- Identify streamlined techniques and “Best Practices” that enable cost-effective and accelerated implementation of validated ISM processes and programs;

- Facilitate coordinated contractor input to DOE on ISM related issues; and,
Provide an efficient mechanism for DOE interface with senior contractor executives and subject matter experts responsible for development, implementation and continuous improvement of ISM.

1999 Achievements

- Provided leadership and participation in all DOE sponsored ISM workshops which assisted DOE contractors in the development and implementation of validated ISM processes to support DOE's September 2000 completion objective.
- Established and maintained DOE sponsorship for the Working Group and Subgroups through the DOE HQ Director of the Department’s Safety Management Implementation Team’s (SMIT) office. Direct sponsorship for the Working Group and currently established Subgroups will continue during FY00 and FY01.
- Finalized formal charters for the Working Group and Subgroups.
- Expanded Working Group and Subgroup membership with representatives and subject matter experts from all major DOE sites.
- Expanded Working Group liaison membership to include the Institute of Nuclear Power Operations (INPO) and the DOE National Environmental Training Office (NETO).

2000 Focus

- the identification and publicizing of ISM “Best Practices”;
- actively sponsoring and participating in sessions at all DOE ISM Lessons Learned Workshops;
- reconstituting the Environmental Subgroup with a focus on integration of environmental processes and practices within the ISM system;
- achieving operational status of the Occupational, Safety and Health Subgroup;
- continuing development and coordination of ISM performance measures with DOE HQ; and,
- continued expansion of key external liaison membership to include the National Laboratory Improvement Council (NLIC) and the Center for Chemical Process Safety (CCPS).

**MAINTENANCE WORKING GROUP**

The Maintenance Working Group (MWG) is a working committee who's intent is to facilitate the objective of the Energy Facility Contractors Group (EFCOG) as it relates to maintenance and physical asset management. The purpose of the MWG is to promote excellence in Department of Energy (DOE)
maintenance programs through sharing information, resources, knowledge, talents, and use of lessons learned.

Status

Three Maintenance Working Group Steering Committee Meetings were held in 1999.

- April 27-28, 1999, Lawrence Livermore National Laboratory
- July 22, 1999, Idaho National Engineering Environmental Laboratory
- October 19-21, 1999, Nevada Test Site

One Maintenance Working Group Workshop was held in Idaho Falls, Idaho on July 19-22, 1999; 175 people attended the workshop. There was participation from DOE, Contractors, and private industry. The conference was very successful and was able to recover attendance from the problems associated with the conference management directive. Forty-eight presentations were given on a variety of topics that covered Excellence in Public Works, People Performing, and Innovation and Environmental Excellence. Two separate tours were conducted: 1) tour of the INEEL with focus on D&D activities, and 2) tour of the Idaho Falls Power Plant. In addition, the Safety Culture Revolution was held and focused on the topic: Get in Touch with Your Safety Vision. Many of the evaluation forms stated that the conference had exceeded expectations and noted that the most important aspect of the workshop is the information sharing and the knowledge gained from the variety of pertinent topics.

The “Safety Culture Revolution” portion of the MWG Workshops has been very successful and has been recognized by private industry. Lawrence Livermore National Laboratory has led this grassroots safety program and they were visited by senior management and union leadership from General Motors Corporation. General Motors, particularly, Saturn Division have been participants at past conferences and they were interested in looking at the Safety Culture Revolution as a corporate safety program that they could adopt. After the visit to LLNL, the Board of Directors of GM approved the adoption of the Safety Culture Revolution program. This speaks volumes for the example and the value of the sharing at conference.

1999 Achievements

- Deferred Maintenance Reporting under the Statement of Federal Financial Accounting Standards No. 6 was a major focus of the group. Sharing of information and reporting methods was beneficial in helping the individual sites to meet the expected requirements of Deferred Maintenance.
- Stewardship of Federal Facilities – In accordance with the LCAM Partnering Agreement with DOE-HQ, the MWG Responded to a request regarding the Stewardship of Federal Facilities. Recommended suggestions were made regarding the use of deferred maintenance as well as indicators that would be successful in determining the overall condition of a facility.

- Replacement Plant Value – A white paper was presented to DOE-HQ, FM in March 1999 in answer to a request for recommendations on performance measures that can be used to measure the condition of facilities.

- Accident results and lessons learned from the fatality at the INEEL were shared with all members of the group and at the workshop. It was stressed that even though you can’t predict equipment failure, you can plan for it. The resulting changes at the INEEL in the implementation of a standards based maintenance program were shared with each member site by transmittal of the INEEL Integrated Work Control Process.

- Planner Qualification Program – many sites are working on a standardized training program and the Planner Qualification Program that was instituted at the INEEL was shared with all member sites for use in their development of a planner program.

- Facility Excellence Program – The INEEL Implemented a Facility Excellence Program that provides for the assessment of facilities by utilizing walkdowns and checklists. This program and guidelines were provided to the MWG.

- Lawrence Livermore National Laboratory instituted Prioritization at their lab and this was shared with the MWG Steering Committee members. Steps of prioritization are Risk Level, Probability of Failure, and Backlog.

- Lawrence Livermore National Laboratory provided 3 publications to the MWG regarding make-buy programs. These included: Trash Collection Study, Custodial Services, and Grounds Maintenance.

- Several DOE sites are implementing new computerized maintenance management systems. The discussions and information shared between sites proved to be valuable for the sites involved. Lessons learned were very important to implementation so mistakes from one site could be eliminated from other sites. This was a very valuable networking topic to all team members.

- Performance Indicator Project – The performance indicator project is being utilized by 10 sites and has been automated on the web. The accomplishments and continuation of the MWG Performance Indicator Team were discussed and it was determined that the group was providing a valuable service and many of the sites were utilizing the data that was
being collected and compiled from the various sites. The MWG Steering Committee supported the continuation of the Performance Indicator Project. The administration of the data and reporting will be passed from the INEEL to LLNL.

- Three videos were shared with all members of the MWG Steering Committee to provide lessons learned and area of expertise. The Security Training Facility at the INEEL was demolished on September 18, 1999 and the implosion was videotaped and shared with the MWG as well as other interested sites. Sandia National Laboratory shared two videos regarding the demotion of a water tower at SNL and the Facilities Business Unit – How to get work done through Leas Agreements. SNL also provided a process flow for facilities and life-cycle posters.

**2000 Focus**

- The Maintenance Working Group will hold three meetings in 2000 and also communicate through e-mail and the use of conference calls. The MWG plans to schedule steering committee meetings in conjunction with other activities to make the best use of travel funds.

- There will not be a 2000 MWG Workshop and Safety Culture Revolution held due to the constraints of travel and the uncertainty of the DOE Directive on Conference Planning. Plans will go forth with a 2001 Workshop.

- Participation with DOE-HQ support on RS Means to utilize models for consistency across the complex is being considered as a future focus.

- Project Management initiatives will be considered as a future focus for the MWG Steering Committee.

- The MWG Performance Indicator Team will continue to provide data for the measures that were established. The path forward for the performance measure team will be to revise and update current performance measures and issue updated performance indicator documentation. Two new measures, construction safety and project management, will be researched to determine effectiveness and value of adding to the project.

- A MWG Vice Chair will be selected during 2000 in preparation to become the Chair in 2001.

**Radiation Protection Working Group**

The Radiation Protection Working Group’s purpose is to help foster and achieve fundamentally sound, more efficient and cost effective radiation protection practices through the ongoing assimilation and exchange of
information and techniques with all appropriate sources both internal and external to DOE.

The RPWG focuses on public and worker radiation protection, efficiency of radiation protection operations, risk management, corporate and DOE liabilities, and benchmarking with appropriate academic and private industrial focus to attain and maintain the DOE’s goal of high-quality cost-effective radiation protection across the DOE complex.

Status

- The RPWG has been especially successful in working with DOE to address issues as they are identified.

- A series of workshops were held following the issuance of 10CFR835. These workshops helped both DOE and the DOE Contractors to define the content of the Radiation Protection Plan (RPP) and identify a reasonable schedule for submittal and approval of the RPP. EFCOG contractors met to provide DOE with consensus comments on the proposed revision to 10CFR835.

- The RPWG has been very beneficial. DOE has received consensus comments, request and recommendations from the contractors. This has been significantly more useful than feedback from isolated contractors that DOE then has to weigh with other feedback. In the case of the bioassay meeting some contractors were facing the potential for fines for having non-compliant bioassay programs. Information gathered at the meeting allowed the contractors to improve their programs and request assistance from the other contractors so that enforcement actions were not necessary.

- The first series of workshops that were called in response to the issuance of 10CFR835 resulted in a vastly improved definition of the content of the RPP. Contractors had spent from $10,000 to $1M to develop their RPP. Saving a single rewrite for 12 contractors averts $1 to $5 million. The saving to DOE for not having to reject the RPP submittal or delay approval averts several million dollars more.

- The consolidated comments provided DOE on the proposed revision to 10CFR835 averted the need to prepare individual responses to dozens of comments that are similar but not quite the same. The comments themselves provided DOE with a vehicle that permitted substantial improvement to the amended rule and will ensure more cost-effective implementation. The savings in source control alone will be tens of thousands each year for some contractors. The improvements in source control are the direct result of the efforts of the EFCOG Radiation Protection Working Group.
**Price Anderson Amendments Act Working Group**

The purpose of the Price-Anderson Amendments Act Working Group (PAAAWG) is to provide a regulatory affairs forum for U.S. Department of Energy (DOE) contractors that facilitates DOE and contractor objectives concerning all aspects of the nuclear safety regulations embodied in the PAAA Rules and promotes excellence at DOE facilities through cost-effective implementation of these nuclear safety regulations by sharing of information and lessons learned.

**Activities, Accomplishments, and Products for CY-99**

The PAAAWG was established in August 1999 by the formal elevation of the existing PAAA Subgroup of the Nuclear Facilities Management Working Group to full Working Group status. A new PAAAWG Chair and Vice-Chair were appointed by the Sponsoring Director, and a Strategic Planning Committee (SPC) was established. The Sponsoring Director identified and appointed four Members to the SPC, in addition to the Chair and Vice-Chair. It was not necessary to hold organizational meetings because the pre-existing Subgroup organization was fully absorbed by the new PAAAWG.

Workshops are held every six months in the Spring and Fall of the year. The DOE Office of Enforcement and Investigation (EH-10) is always invited, and usually accepts the invitation to participate on the second day of a two-day workshop. The two workshops held in CY-99 are listed below.

- **Spring 1999** Livermore, hosted by LLNL
- **Fall 1999** Albuquerque, hosted by SNL & LANL

Both of the 1999 workshops were attended by EH-10. The Spring 1999 Workshop was also attended by EH-1, by the Manager and Deputy Manager of DOE/OAK, and by other DOE/OAK personnel. The two workshops were considered highly successful by both contractor and DOE attendees.

PAAAWG accomplishments during 1999 include:

- Provided feedback to DOE/EH-10 on a change to the current enforcement policy concerning application of the 10 CFR 830.120 QA Rule to radiological activities.
- Developed a white paper concerned with identification of employee populations subject to contractors’ Internal Dose Evaluation Programs, and provided feedback to EH-10 on this issue.
- Updated the EFCOG PAAAWG guidance document for contractor identification of potentially significant (i.e., reportable to DOE) PAAA Noncompliances with 10 CFR 830.120, *Nuclear Safety Management*
Quality Assurance Requirements, by incorporating additional actual dispositioned cases.

- Albuquerque Workshop included contractor presentations and discussions with EH-10 regarding the status of, and various issues associated with the EH-10 PAAA Program Assessments. This resulted in a commitment by EH-10 to issue enforcement clarifications (or enforcement guidance supplements) concerning:
  - changes to procedures (clarification issued 11/15/99)
  - legacy contamination (clarification issued 11/24/99)
  - PAAA reporting thresholds
  - application of 10 CFR 830.120 to accelerator facilities

- A videotape of the presentation by Keith Christopher (EH-10), including the Q&A and discussion session was distributed to Contractor PAAA Coordinators in December 1999.

Cost Savings / Avoidance Considerations

No formal cost benefit analysis has been performed for PAAAWG activities, and the cost-avoidance benefits resulting from these activities are not directly or easily measurable. It is clear, however, that many contractors and the DOE have benefited from the sharing of lessons learned concerning implementation of PAAA requirements at the various DOE sites, discoveries of problem areas, and experience with enforcement actions. Both communities have also benefited from PAAAWG activities that directly addressed difficult problems and effectively resolved or significantly contributed to the resolution of these problems, such as in the identification of employee populations subject to contractors’ internal dose evaluation programs. In addition, the continued direct interaction with EH-10 at PAAAWG Workshops has been generally viewed as extremely beneficial to both DOE and the contractor community, particularly when enforcement policy and the process for implementation of enforcement policy are undergoing change – as they are at the present time.

The benefits to DOE from PAAAWG activities are briefly described below.

- Consistency in understanding and reporting of PAAA matters
  - Improved communication among DOE contractors
  - Sharing of lessons-learned
  - Early identification of problems in DOE guidance documents
  - Better understanding of for-profit & not-for-profit issues
  - More consistency in assessment of significant PAAA issues
  - EFCOG guidance documents help the process

- Workshops provide a DOE-wide contractor forum with DOE/EH-10
  - Timely discussions of proposed enforcement policy changes
  - Revisiting of old PAAA issues and surfacing of new issues
• Maintenance of formal and informal networks of PAAA-knowledgeable and experienced contacts

Planned Activities for CY-00

The PAAAWG Spring 2000 Workshop will be held at Brookhaven National Laboratory (BNL) during the week of April 3, 2000. The Fall 2000 Workshop is tentatively scheduled for the week of October 2, 2000, with a location yet to be established.

PAAAWG activities currently in process or planned for FY-00 include:

• Develop a PAAAWG Charter for approval by the EFCOG Executive Directors.
• Establish formal liaisons with the EFCOG Radiation Protection Working Group and the existing non-EFCOG Quality Assurance organization to improve communications with these groups and to minimize duplication of effort concerned with PAAA issues.
• Provide comments to, and interact with EH-10 on a proposed EH-10 Enforcement Guidance Supplement or position paper concerning legacy contamination.
• Provide comments to, and interact with EH-10 on a proposed EH-10 Enforcement Guidance Supplement concerning the application of 10 CFR 830.120 to accelerator facilities.
• Provide comments to EH-10 on a proposed revision of the EH-10 Operational Procedures for Identification, Reporting and Tracking of Noncompliances with Nuclear Safety Requirements.
• Establish new Subgroups and/or additional Task Teams to address issues of significant interest to the PAAAWG members.

Subgroups’ Status

The PAAAWG does not yet have active subgroups. Serious consideration is currently being given to the establishment of subgroups to address the two areas listed below, both of which appear to be of significant long-term interest to the contractor community.

• Graded-Approach (including procurement issues)
• Radiation Protection (including bioassay and legacy issues)

The two Task Teams listed below are currently active.

• Significance Criteria Team Leader: Mike Walls, ORNL
• Graded Approach Team Leader: Brinley Varchol, Fernald
The Significance Criteria Task Team was originally formed in June 1996, and has been carried over from the previous PAAA Subgroup and retained in active status within the new PAAAWG. The original purpose of this Task Team was to develop an EFCOG guidance document to assist the DOE contractors in the identification of noncompliances with DOE’s QA Rule significant enough to be reportable to DOE. The Task Team has been retained in active status in order to update and maintain the document. The document was last revised in 1999, and is expected to be revised again during 2000.

The Graded Approach Task Team was formed in December 1999. Its purpose is to determine if existing documented guidance concerning application of graded approach to various PAAA issues, including procurement matters, is sufficient to provide a basis for tailoring nuclear safety requirements to the various categories of nuclear facilities. Should the existing guidance be inadequate, the Task Team is will determine if there is sufficient interest within the contractor community to justify the establishment of a PAAAWG subgroup on this subject to initiate the development of such guidance and to maintain continuing awareness of the entire range of concerns associated with this topic. The Task Team will examine these issues and make an appropriate recommendation to the PAAAWG on or about September 1, 2000.

SAFETY ANALYSIS WORKING GROUP

The purpose of the EFCOG SAWG is to promote excellence in the Department of Energy (DOE) safety analysis programs through information sharing and application of lessons learned to other facilities. The objectives of the SAWG are to:

- Operate within the framework of EFCOG;
- Provide planning and actions necessary to see that the overall objectives of the EFCOG come to fruition in the area of safety analyses;
- Promote, coordinate, and facilitate the active exchange of successful safety analysis programs, practices, procedures, lessons learned, and other pertinent information of common interest on safety analyses, which have been effectively utilized by Management and Operations (M&O), Management and Integration (M&I), and Environmental Remediation contractors; and
- Promote training on safety analyses by sharing of management and technical information among contractors through mechanisms such as workshops, subgroups, and seminars.
Key Objectives, Activities, and Benefits for CY 1999

The CY 1999 key objectives, activities, and benefits of the SAWG included the following:

- Promoting excellence in DOE and contractor safety analysis programs, through greater information sharing and application of lessons learned to other facilities, by
  - Better identification and definition of current complex-wide safety analysis issues;
  - Restructuring the objectives of SAWG subgroups and creating task groups;
  - Resolving major safety analysis issues; and
  - Developing better safety analysis guidance.

- Promoting, coordinating, and facilitating a better exchange of safety analysis information by
  - Increasing the membership of the Steering Committee, subgroups, and task groups;
  - Continuing development and improvement of the SAWG Web Pages;
  - Enhancing the utility of meetings and monthly teleconferences of the Steering Committee and Subgroup Chairs and the utility of subgroup teleconferences; and
  - Increasing participation in the SAWG Authorization Basis Workshop, the SAWG Annual Workshop, and DOE / EFCOG Chemical Safety Workshop.

- Promoting and conducting safety analysis training by
  - Maintaining a list of the Training Point of Contact (POC) at each site;
  - Completing development of and publishing the Guidelines for Training and Qualification of Safety Analysts;
  - Completing development of and publishing the Safety Analysts Training Plan;
  - Completing development of and publishing the Safety Analysts Vendor Course List;
  - Coordinating with the Subgroup Chairs to identify training needs and training classes and assisting the Chair of the SAWG Annual Workshop with training support; and
  - Conducting safety analysis training.

Key Objectives, Goals, Processes, and Timelines for CY 2000

The CY 2000 key objectives, goals, processes, and timelines of the SAWG will be primarily focused on those of its subgroups, as listed below:
Accident Analysis Subgroup

- Complete the development of a DOE user review draft of the Accident Analysis Guidebook by June 2000.
- Conduct a DOE Accident Analysis Workshop, with training in accident and consequence analysis, as part of the April 28 – May 4, 2000 Annual SAWG Workshop in Santa Fe, NM.
- Continue Accident Analysis Subgroup linkage to the June 4-8, 2000 ANS Summer Meeting in San Diego, CA.
- Providing a forum via teleconferences, e-mail exchanges, and meetings to exchange information and lessons learned regarding accident and consequence analyses.

Authorization Basis Subgroup

- Assisting DOE HQ in the development of the Implementation Guide for the Price-Anderson Amendments Act (PAAA) Rule on Safety Basis Requirements (i.e., Code of Federal Regulations Part 830 Subpart B.)
- Review DOE HQ/EM and DP concerns with existing Authorization Agreements and assist DOE HQ personnel in revising the guidance in Chapter 4 of DOE Guide 450.4-1A, “Integrated Safety Management System Guide”.
- Reduce or eliminate problems with the contractor independent safety review function. Complete the survey of all sites by July 1, 2000 to document best practices and lessons learned with regard to the contractor independent safety review function. Document the results of the survey in a white paper and publish the results by October 1, 2000.
- Developing guidance on the use of Nuclear Regulatory Commission (NRC) versus DOE requirements for new construction.
- Hosting and publishing the results of the January 24-25, 2000 Authorization Basis Workshop.
- Coordinating completion of the Authorization Basis Workshop white papers for presentation at the April 28 – May 4, 2000 SAWG Annual Workshop.
- Maintaining the Authorization Basis Database on the Subgroup web page.
- Identifying and documenting Authorization Basis lessons learned on the Subgroup web page.
- Providing a forum via monthly teleconferences, e-mail exchanges, and meetings to exchange information and lessons learned.
Chemical Safety Subgroup

- Address other issues from the 1999 Chemical Safety Workshop, as appropriate.
- Providing a forum via teleconferences, e-mail exchanges, and meetings to exchange information and lessons learned regarding chemical safety.

Technical Safety Requirements Subgroup

- Provide the opportunity for cost-effective TSR training to safety analysts in the DOE community in need of TSR, thereby producing more knowledgeable and cost-efficient TSR preparers and reviewers.
- Developing guidance on tailoring design and Quality Assurance (QA) criteria for safety significant structures, systems, and components (SSCs).
- Revising the TSR Subgroup charter to place more emphasis on addressing specific contractor issues and supporting DOE initiatives as well as sharing of lessons learned.
- Providing a forum via teleconferences, e-mail exchanges, and meetings to exchange information and lessons learned regarding the development and implementation of TSRs.

Training Subgroup

- Identify complex-wide safety analysis training needs and arrange for and schedule training classes at the SAWG Annual Workshop that address the needs of the safety analysis preparers and reviewers throughout the DOE complex.
- Develop a white paper on Guidelines for Training and Qualification of Contractor Safety Analysis Reviewers.
- Develop a more rigorous training program for developing and maintaining the core competency of safety analysts and reviewers, which includes authorization basis training. Develop the matrix by 1 July 2000. Identify existing training courses by 1 October 2000. Identify the requirements for new courses by 31 December 2000. Develop a schedule for existing classes by 31 December 2000.
- Identify existing safety analysis training classes that can be cost-effectively taught on a site-by-site basis and publish this information on the Training Subgroup webpage. Identify safety analysis training that could be effectively taught on a site-by-site basis and promote its
development through the generation of requirements documentation for
the associated training material.

- Identify existing safety analysis training classes, that can be taken via the
Internet, and publish this information on the Training Subgroup webpage
by 1 July 2000. Identify safety analysis training classes that could be
effectively conducted via the Internet and develop requirements
documents for their development by 31 December 2000.

- Promote the development of training programs that provide an
opportunity to apply the training through the performance of safety
analysis and the development of safety analysis documentation.

- Providing a forum via teleconferences, e-mail exchanges, and meetings to
exchange information and lessons learned regarding safety analysis
training.

**Unreviewed Safety Questions Subgroup**

- Assisting DOE HQ in the development of the Implementation Guide for
the Price-Anderson Amendments Act (PAAA) Rules on USQ Requirements
(i.e., Code of Federal Regulations Part 830 Subpart B Sections 210 and
211).

- Provide cost-effective USQ training to all safety analysts, who need this
training across the DOE complex, thereby producing more knowledgeable
and cost-efficient users of the USQ Process.

- Work with DOE HQ personnel to develop enhanced guidance as part of
the Implementation Guide for the PAAA rules on USQ Requirements.

- Develop guidance on what constitutes a “significant increase” in
consequences and how it impacts the use of “acceptance criteria” to
determine USQs.

- Develop guidance on the application of the USQ Process to changes in
infrastructure (i.e., administration and hardware).

- Develop guidance on what constitutes a “reasonable time” for
determination of applicability and existence of potentially inadequate
safety analysis (PISA).

- Develop and document metrics (i.e., performance indicators) for the USQ
Process.

- Providing a forum via teleconferences, email-exchanges, and meetings to
exchange information and lessons regarding successful USQ programs,
practices, lessons-learned, training, and other pertinent information of
interest.
Task Team and Subgroup Status

An Evaluation Guidelines Task Group and a SAR Implementation Guide and Standards Task Group were established by the Steering Committee at its October 1999 meeting to meet short-term objectives. They are briefly described below.

Evaluation Guidelines Task Group

- **Purpose**: The purpose of this task group is to develop a position paper on the proper use and application of evaluation guidelines, including frequency-based evaluation guidelines.

- **Planned Activities**: Develop a straw man position paper on the use and application of evaluation guidelines. Use this paper as a starting point toward a consensus position discussion at the 24-25 January 2000 Authorization Basis Workshop. The final product will be a White Paper that will be submitted as a formal SAWG position paper.

SAR Implementation Guide and Standards Task Group

- **Purpose**: The purpose of this task group is to review DOE Standard 3009-94, “Preparation Guide for U.S. DOE Nonreactor Nuclear Facility Safety Analysis Reports”, as part of the DOE-mandated 5-year review and the new proposed implementation guide for the PAAA Safety Basis Requirements Rule and provide suggestions and comments to DOE HQ/EH-31. Comments on DOE Standard 3009-94 and the new implementation guide will be discussed during sessions at the 24-25 January 2000 Authorization Basis.

- **Planned Activities**: Review DOE STD-3009-94 and the new proposed implementation guide for the PAAA Safety Requirements Rule and provide comments and suggestions to DOE HQ/EH-31.

The following subgroups were moved to the inactive status due to a general lack of participation. Due primarily to a lack of travel funding most of the safety analysts, who have a strong interest in human factors, have participated in the human factors professional society meetings rather than the EFCOG SAWG meetings; therefore, there has been little participation during the past several years in the SAWG Human Factors Subgroup. In the past few years there have not been any major issues raised, which have involved facility disposition; therefore, the subgroup was deactivated. However, during the 2000 Authorization Basis Workshop, there were several facility disposition issues raised, which might warrant a reevaluation of this position.
Waste Management Working Group

The purpose of the WMWG is to promote excellence in waste management with emphasis on safe, compliant and cost-effective approaches, through exchange of information on lessons learned, emerging issues and proposed DOE requirements and initiatives.

1999 Status

- During 1999 the Waste Management Working Group (WMWG) limited activities to four areas:
  - Review DOE Order 435.1 Waste Management Training Materials for DOE/EM.
  - Review DOE Waste Management Programmatic Environmental Impact Statement (WMPEIS) and Record of Decisions for DOE/EM.
  - Network between sites to reduce the time and cost to solve site-specific issues.
  - Monitor and disseminate information on emerging urgent issues in waste management.

- The working group meets a minimum of once annually in conjunction with the Waste Management Symposium to avoid unnecessary travel and meeting expenses.

- The group met on March 2, 1999 at the Waste Management ’99 Symposium in Tucson, Arizona and identified new issues and areas of focus for 1999. The group objectives were established for the year focusing on the release of DOE Order 435.1. The group discussed planned approaches and unresolved issues with the order. Also, the group was awaiting the release of the low level and mixed low level radioactive waste Records of Decision.

- During the year, several members met with NETO to review training materials for DOE Order 435.1. It is believed that the quality of the training was significantly enhanced by this effort.

- Networking between members is still the primary focus of the working group. The members shared information between sites on container selection and qualification, waste profile preparation, treatment issues, and generator protocols. Also, radiation protection of waste workers, and waste container certification were worked between site members. The pollution prevention workshop was held in conjunction with the Energy Efficiency Working Group rather than the WMWG because of location and synergies. Several other meetings and workshops were held by the DOE so the group had no reason to hold additional workshops.
The WMWG chairman also presented at the Chemical Safety Working Group Workshop on the issues surrounding transition of waste management to the generators at non-EM sites.

Conference calls were conducted as needed for group communications.

2000 Focus

The 1999 objectives of the WMWG were met and the following issues are considered for focus in year 2000:

- Legacy Waste Worker Radiation Protection - Across the complex, waste management operations are bearing the brunt of Price Anderson Amendments Act enforcement actions. The nature of legacy waste operations leads to substantially higher risk of worker radiation exposure due to the poor characterization of legacy waste and materials. Several sites have had either unplanned radiation exposures or near misses. The group will focus on advanced work planning and control to hopefully reduce the risk of unplanned exposures.

- PAAA Quality Assurance requirements will be enforced for all facilities and activities that have the potential for radiological harm. This will significantly impact radioactive waste operations, especially those activities conducted in less-than-category III radiological facilities. The group will attempt to define “graded approaches” that are acceptable to EH-1 PAAA enforcement entities that may be applied to waste operations.

- Coordination of vendor/supplier audits and assessments – Commercial treatment, storage and disposal (TSD) facilities and vendors of materials used for radioactive waste sampling, transportation and disposal still complain about the endless DOE contractor audits. Previous attempts to reduce this costly burden on both the contractors and suppliers have only been partially successful due to legal and site-specific issues. With the release of the Broad Spectrum Procurement for mixed low level radioactive waste and the implementation of 10CFR830.120 vendor certification, additional audits and assessments are underway with each site conducting their own audit. The group will review the issue and provide recommendations to DOE and the Directors.

- Encourage commercial radioactive waste treatment – Several commercial suppliers are attempting to develop capabilities to support DOE’s need for mixed low level radioactive waste treatment. In cooperation with the Mixed Waste Focus Area, the group intends to facilitate the dissemination of information on commercial waste treatment capabilities. Due to subtle differences in the waste composition, subject matter experts must spend considerable time interfacing with the vendor and other sites to identify viable treatment technologies for their waste. The group will encourage the growth and interaction of a network of mixed waste treatment subject
matter experts to reduce the time and frustration in identifying commercial treatment options. The group supported DOE workshops to facilitate communications and networking between mixed waste treatment personnel. The workshop was very productive, especially for sites with small quantities of mixed waste.

**EFCOG WEB PAGE**

Over the past year, EFCOG has undertaken to improve its web page. First, Duke Engineering Services completed design of a new web site for EFCOG with a focus on making the site more user friendly to members and others who might wish to access information regarding lessons learned or other EFCOG activities. In addition, Barbara Pierre, Support Administrator, assumed the responsibility of daily maintenance of the web site to assure that its content is correct and consistent with the EFCOG database.

Key features of the changes implemented in 1999 include access to member company web-sites, a centralized phone and address directory, an improved calendar for posting of events, meetings and conferences, a "what's new" section to give a brief overview of current events and news of interest, and a publication section for posting all minutes, conferences, annual reports, newsletters and documents of general interest.

We encourage all parties using the web page to provide feedback to us on how the EFCOG site can be made more useful and user friendly.

**FINANCES**

Longenecker and Associates continues to provide strategic planning, Executive Council support, working group coordination and day-to-day administrative support to the EFCOG members and working groups. The support staff provides a focal point for strategic planning, coordination of EFCOG activities, and for maintaining a central base of EFCOG data. The support contractor is also responsible for coordinating activities with DOE, collecting and distributing information to members, managing the EFCOG web page, developing and distributing the EFCOG Newsletter, contacting prospective new members, maintaining the EFCOG Working Group Operating Manual, and the Executive Council Manual, developing and maintaining the EFCOG library of records and information, supporting the Executive Directors, working groups and subgroups, and other duties as assigned by the EFCOG Chair.

Funding for administrative support is provided by EFCOG members who annually pay a pro rata share of the support costs for EFCOG. Support costs collected from member companies decreased by 41% from 1997 to 1998, and despite the assignment of additional scope to the support contractor, were
held constant in 1999. The funds are collected, administered and disbursed within the accounting system of the Chairing Contractor (the EFCOG Chairs’ employer). Receipts for members’ pro rata shares and disbursements for services are shown in Table 3 and Table 4.

FUTURE PLANS

In 2000, EFCOG will continue to focus on the critical few items of contract reform, privatization contracting, improved project management, and maintaining core capabilities. In addition, we will maintain a close dialogue with DOE to determine other areas such as cyber security where we may lend support.

It is certain that the future will hold many new challenges and changes for the Department and its contractors. As in the past, these changes and challenges must be met under close public and congressional scrutiny and with very tight budget constraints. With this in mind, EFCOG reiterates our commitment to working closely with DOE and to working safely and more efficiently to meet the overall energy needs of the country. We encourage recommendations from DOE or from our members on new areas where we should be focusing, or on areas that deserve increased attention.

SUMMARY

In closing, I want to thank all of our members, our working groups, and our directors for their continued accomplishments and dedication over the past year. We are also very gratified with the guidance, support and encouragement provided by our DOE sponsors. We look forward to meeting future DOE challenges by continuing EFCOG’s focus on mission critical items with the highest potential benefit.

As I complete my term as EFCOG chair, I challenge all of our members to strive to assure that DOE can fulfill its important national mission as safely, effectively and economically as possible.
1999 EXECUTIVE COUNCIL

- Bechtel BWXT Idaho, LLC (formerly Lockheed Martin Idaho Technologies)
- Bechtel Hanford
- Bechtel Nevada
- BNFL Inc.
- BWXT Services, Inc.
- Brookhaven National Laboratory (operating BSA)
- CH2M HILL Hanford Group, Inc. (formerly Lockheed Martin Hanford Corp.)
- Duke Engineering & Services
- DynCorp
- EG&G, Inc.
- Fluor Daniel Hanford
- Fluor Fernald
- Foster Wheeler Environmental Corporation
- Honeywell International, Inc. (formerly AlliedSignal)
- Johnson Controls -- Northern New Mexico
- Kaiser-Hill Company, LLC/Rocky Flats
- University of California, Lawrence Berkeley National Laboratory
- University of California, Lawrence Livermore National Laboratory
- University of California, Los Alamos National Laboratory
- Lockheed Martin Energy Systems
- Mason & Hanger Corporation (Pantex)
- Midwest Research Institute (NREL)
- Morrison Knudsen Corporation
- Numatec Hanford Corporation
- Pacific Northwest National Laboratory (operated by Battelle)
- Sandia National Laboratories
- Science Applications International Corporation
- TRW Environmental Safety Systems, Inc.
- Westinghouse Savannah River Company
- Westinghouse Waste Isolation Division (WIPP)

Table 1
1999 EXECUTIVE DIRECTORS

Robert Van Hook, Ph.D.
Lockheed Martin Energy Systems
- EFCOG Chair

John Lee
Westinghouse Electric Corporation
- Energy Efficiency Sponsor

Steve Polston
CH2M HILL
- EFCOG Vice Chair
- Radiation Protection Sponsor

Don Pearman
Bechtel National Inc.
- Waste Management Sponsor

Dennis Fisher, Ph.D.
Lawrence Livermore National Lab
- CAD/CAE Facilities Sponsor
- Information Management Sponsor
- Maintenance Sponsor
- Safety Analysis Sponsor
- Price-Anderson Sponsor
- Integrated Safety Management Sponsor

Robert Pedde
Westinghouse Savannah River Co.

Frank Figueroa
Sandia National Laboratories

Tom Stevens
Duke Engineering & Services

Thomas R. Sheridan
Brookhaven Science Associates

Table 2
EFCOG FUND ACCOUNT FY-99 RECAP

October 1, 1998 - September 30, 1999

Balance from FY-98 174,420.50

RECEIPTS

FY-99 membership renewals 115,000.00
FY-99 new memberships (pro-rated) 2,500.00

Total receipts as of 09/30/99 117,500.00

DISBURSEMENTS

Support Service Contractor
Longenecker & Associates (1) 172,706.99
University of California Regents (2) 6,178.11

Total disbursements as of 09/30/99 178,885.10

Ending Balance as of 09/30/99 113,035.40

NOTES:

(1) Support Service includes:
   a. 1999 Executive Council Meeting 14,772.00
   b. Working Group Support 20,391.00
      • New assignment in 1999
   c. EFCOG Web Site 20,325.00
      • Internet Service (Duke Engineering)
      • New Software Purchase
      • Web Site Development
      • Monthly Web Site Maintenance
   d. Workshop Reception

(2) Defense Contract Audit Agency (DCAA) performed an "Incurred Costs" audit of UESC's FY's 1989 to 1995. The result of the audit was that there were higher incurred indirect costs in performance of the LLNL subcontract with USEC than originally estimated.
   • Difference in costs 6,992.52
   • Retained by LLNL when account was closed out 814.41
   • Balance due LLNL to satisfy contractual obligation 6,178.11

Table 3
FY-99 MEMBERSHIP

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<tr>
<th>Company</th>
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<td>Fluor Daniel Hanford</td>
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<td>Kaiser-Hill Company / Rocky Flats</td>
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<tr>
<td>Lawrence Berkeley National Laboratory</td>
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<tr>
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<tr>
<td>Midwest Research Institute / NREL</td>
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<tr>
<td>Pacific Northwest National Laboratory</td>
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<td>TRW Environmental Safety</td>
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<td>Westinghouse Savannah River Company</td>
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<tr>
<td>Westinghouse Waste Isolation (WIPP)</td>
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</tbody>
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TOTAL MEMBERSHIP RENEWALS $115,000

DynCorp (4th Quarter Pro-Rated) $1,250
SAIC (4th Quarter Pro-Rated) $1,250

TOTAL NEW MEMBERSHIP $2,500

TOTAL MEMBERSHIP FOR 1999 $117,500

Table 4
## FY-20 PROJECTED MEMBERSHIP

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<tr>
<th>Company Name</th>
<th>Membership</th>
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<td>Kaiser-Hill Company / Rocky Flats</td>
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**TOTAL MEMBERSHIP FOR 2000** $147,500

*Table 5*
FY-20 PROJECTED BUDGET

October 1, 1999 - September 30, 2000

Balance from FY-99 $113,035.40

**Receipts**

FY-20 membership renewals 147,500.00

**Disbursements**

Support Service Contractor 175,000.00
Longenecker & Associates *(1)*

Projected Ending Balance as of 09/30/00 $ 85,535.40

NOTE:

(1) Support Service includes:
  a. 2000 Executive Council Meeting
  b. Administrative Support
  c. Working Group Support
  d. EFCOG World Wide Web
      • Internet Service (Duke Engineering)
      • New Software Purchase
      • Web Site Development
      • Monthly Web Site Maintenance
  e. Directors and Working Group Chair Meetings
  f. Administrative Supplies and Fees

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Table 6
### 1999 WORKING GROUPS

<table>
<thead>
<tr>
<th>Working Group</th>
<th>Chairperson</th>
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<tr>
<td>CAD/CAE Facilities</td>
<td>Fred Norton, LLNL</td>
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<td>Information Management</td>
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<td>Integrated Safety Management</td>
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<td>Maintenance</td>
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<td>Price-Anderson Amendments Act</td>
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<td>Radiation Protection</td>
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<td>Safety Analysis</td>
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<tr>
<td>Waste Management</td>
<td>Lance Mezga, LMES</td>
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**Table 7**