Newsletter of the Colorado Wyoming Chapter of the American Statistical Association.

This edition includes: Spring 2001 meeting announcement; meeting theme and scope; principal speakers; call for presentations and student competition; call for nomination of chapter officers; scholarship and local workshop news; federal appropriations and NSF funding in Colorado and Wyoming; current funding information for grantseekers.

Meeting Announcement and Call for Presentations:

Tom Gatliffe (Tenera, Rocky Flats), has reserved the Main Seminar Room at NCAR for the Spring meeting on April 20, 2001, from 8:00AM to 5:00PM. The Spring schedule includes annual nominations for chapter officers that may need to be filled (principally Pres-elect and Treasurer). The meeting theme is: "Statistical Metrics; In Environmental Sciences, Industrial Processes, Bio-Medical Sciences, and Governmental Affairs."

CO-WYO ASA is calling for presentations, and related suggestions for student competition in those fields. Dr. Gatliffe would also welcome examples of practical applications that provide solutions to problems of real-world data that challenge commercial statisticians, in addition to the usual academic and theoretical discussions. The meeting topics might then serve to further evaluate university preparation for statistical careers outside academe. Dr. Karen Kafadar (CU Denver & editor for Technometrics) and Dr. Dennis Helsel (US Geological Survey, Lakewood, CO.) are the principal speakers for the morning, and each have up to an hour, to an hour-and-half, for talk and questions.

Professor Karen Kafadar will present her Las Vegas Environmetrics & Chemometrics Conference talk called: "A two-dimensional robust nonlinear smoother for environmental data." "We will describe smoothing as an exploratory tool in data analysis, including an underlying model which motivates the need for smoothing, the goals and characteristics of good smoothers, and general classes of smoothers (linear and nonlinear). We also relate smoothing to the concepts of general fitting, parametric regression, and nonparametric regression, and focus on smoothing two-dimensional data sets such as those that occur with environmental data. To overcome the shortcomings in classical linear smoothers, we propose a nonlinear smoother and demonstrate its performance via simulation. Finally, we will present an example using temperature trends at various monitoring stations across the United States."

For those who don't know him, Dennis Helsel has published a text entitled Statistical Methods in Water Resources (Elsevier, 1992) and has several published articles dealing with characterization of trace contaminants and the special problems encountered when a significant proportion of the data are "less than detectable". He also conducts 2- and 4-day workshops for several government agencies, including the EPA

and BLM, and many commercial organizations around the country. He was a member of the Washington DC Chapter while he worked in Reston VA before transferring to Colorado. Dr. Helsel will describe his research and approach to environmental statistics, particularly the treatment of non-detects. He will also talk about a class he has taught for several years, called "Booster Shots for Applied Statistics," and its implications in preparing statisticians for industrial careers. "Scientists who have taken one or two semesters of undergraduate statistics find themselves lost when, five to ten years later, they must remember how to effectively analyze their data. Basic questions such as "Have things changed?" or "Are these locations different?" are difficult to answer without a refresher course. I have taught successful refresher courses to environmental scientists for 14 years. I'll describe my approach, what has made these courses successful, and what that implies for undergraduate statistics education."

Scholarship and Local Workshop News:

The second annual AP Stats workshop was held at Cherry Creek High School on February 10. The workshop was organized by Jim Luhring and Johanna Lewis at Community College, and was sponsored by Cherry Creek High School and the CO-WYO ASA Chapter. The speakers were Dr. Steve Bieber (Department of Statistics at the University of Wyoming), Tom Gatliffe (Tenera Rocky Flats), Marilyn Stor (Stanley Lake, Jefferson County Schools), Bill Richaredson (Smoky Hill High School) and Laura Bennett (Overland High School). Topics ranged from how to teach inference to how to use the Texas Instruments-83 in specific areas such as power calculations. The Chapter would like to thank the organizers, speakers, sponsors, and the twenty teachers who attended the workshop.

The Quality and Productivity section of the ASA has established the endowed Mary G. Natrella Scholarship to award two students interested in Quality with $1,000 each to attend the yearly Quality and Productivity Research Conference (QPRC). This year's QPRC will be held in Austin, Texas on May 23-25, 2001. The conference will be hosted by International SEMATECH, The University of Texas at Austin and Advanced Micro Devices Corporation (AMD) The conference theme is "Industrial Statistics -- A Competitive Necessity" and the conference scope includes a mixture of industrial case studies, best practices and applied and theoretical research aimed at improving the effectiveness of industrial statistical methods. There will be invited and contributed sessions, as well as short courses (on Tuesday, 5/22/01). Master's and doctoral students interested in Quality can apply for an annual Mary G. Natrella scholarship to attend the conferences. In addition to the $1,000 award, the scholarship covers conference registration, conference workshops, housing, meals, and transportation. Women and master's level students are especially encouraged to apply. The Mary G. Natrella Scholarship applications should be submitted on or before February 28, 2001, and to apply for a scholarship, a professor should nominate a promising student through an email application to czitrom@lucent.com. The student should provide a resume, as well as a short statement (around one page long) of professional goals and courses that support interest in Q&P. The student's application should include a paragraph from the supporting professor. The first two $1,000 Mary G. Natrella scholarships, as well as two honorable mentions, were awarded at the QPRC held in Seattle last year.

The Mary G. Natrella Fund Committee members are Veronica Czitrom (chair), Karen Kafadar, Carroll Croarkin, LeRoy Franklin (Q&P Treasurer), and Eileen Boardman. Mary G. Natrella worked for thirty-six years as a statistician at the National Bureau of Standards (now NIST) before retiring in 1986. She published a widely-used design of experiments book, did consulting on applications of statistical methods in the physical sciences and engineering, and participated on the team that produced sampling standards, (MIL-STD-105A) used throughout the government .

“Twenty-First Century Workforce” and NSF appropriations.

The Fiscal 2001 Budget Request. NSF's investment in the 21st Century Workforce Initiative builds on NSF's year 2000 theme, Educating for the Future. For 2001, the 21st Century Workforce Initiative amounts to more than $157 million, an increase of $83.4 million over year 2000. The final budget figures, signed into law December 21, 2000, included a broad $1 billion dollar across-the-board adjustment in 12 of the 13 appropriations bills. For the NSF however, this amounts to a 0.22 percent ($9.74 million) reduction in its $4.426 billion appropriation. For those who are interested in how the funds have been applied in Colorado and Wyoming, this whole history can be found at the NSF public affairs website, but here is a part of the “Twenty-First Century Workforce” mission statement: In the “.....National Research Council report, How People Learn: Brain, Mind, Experience and School, assigned a high priority for the nation to advance research on learning and link it to the development of learning and information technologies. Research will: increase basic understanding of the mechanisms of learning linked to research in biological, environmental, social, and behavioral factors contributing to children's growth and development; find ways to make formal science, mathematical, engineering, and technological education more effective and efficient.....The 21st century workforce will need unprecedented levels of expertise in math, science, engineering and technology. NSF's long-term goal is to generate a workforce second to none, and to bring better understanding of science, mathematics and technology to Americans of all ages, through: Development of the Instructional Workforce. Translating increased understanding of learning into the practice of teaching is done by better educating the educators. NSF will do this through: Centers for Learning and Teaching, which will enhance teacher understanding of the latest research on learning and the ability to use that information, as well as content background productively. The centers will encourage broader participation of underrepresented groups and nurture a new generation of leaders. A $14-million increase will expand efforts initiated in fiscal 2000, and total $20 million in fiscal 2001; Graduate Teaching Fellowships in K-12 Education (GK-12), which puts graduate students into K-12 classrooms as resources for teachers. Funding would be about $28 million in fiscal 2001; and Distinguished Teaching Scholars, which reward undergraduate faculty for integrating research and teaching. Funding is $1.8 million.....The whole spectrum of America's diversity must be engaged in the workforce to keep America economically strong and competitive. NSF's emphasis on improving math and science education for all students is setting the stage for a concerted effort to broaden and diversify the workplace, including: A $10 million initiative for tribal colleges will encourage Native Americans to pursue fields of study in information technology and other science and technology areas. It will also allow tribal colleges to offer relevant courses and to enhance K-12 education in feeder school systems; and NSF will focus on obtaining broader participation of underrepresented groups in scientific and technological fields by uncovering core reasons for lower participation, creating networks, partnering with existing programs, and enhancing partnerships between rural college campuses and research institutes.....The Advanced Technological Education program will develop opportunities for the training and education of technology workers with emphasis on information technology, manufacturing, and teacher development in related areas. Networking and Access. In areas where access to technological resources is limited, NSF will offer opportunities for networking and access to scientific and technological resources. Key to this activity is development of the National Science, Mathematics, Engineering, and Technology Digital Library. The proposed increase for fiscal 2001 is $12 million, to a total of $27 million."

“In FY 1998 the NSF provided over 497 awards totaling approximately $256 million to 50 institutions in the State of Colorado. The following were among institutions in Colorado that received NSF support in FY 1998: the University Consortium for Atmospheric Research (UCAR), the University of Colorado-Boulder, Antarctic Support Associates, Colorado State University, the University of Northern Colorado, Colorado School of Mines, and the University of Denver. The NSF currently supports a number of research centers around the country which bring together university, industry, and state and local government entities to perform basic research in any number of scientific and engineering disciplines with a view

toward industrial applications and economic development. In Colorado, these include: Engineering Research Center (ERC) -- University of Colorado on Optoelectronic Computing Systems. Industry/University Cooperative Research Centers (I/UCRCs) at the Colorado School of Mines, in Advanced Steel Processing and Products Research Center; University of Colorado, in Separations Using Thin Films; Microwave Millimeter-Wave Computer-aided Design. Materials Research Science Engineering Center (MRSEC) -- University of Colorado, performing research on Ferroelectric Liquid Crystals. National Center for Atmospheric Research -- The NCAR serves the entire atmospheric sciences research community and part of the ocean science community by providing facilities and supercomputing resources to assist in the development of large models of atmospheric systems. NSF-funded facilities like NCAR meet national needs for research in specific areas of science requiring facilities, equipment, staffing, and operational support that could not appropriately be offered by a single institution. The NSF/SSI awards are designed to encourage comprehensive reform of mathematics and science education, and to foster greater cooperation between educators, parents, students and local businesses. Colorado was the recipient in 1993 of a five year, $10 million SSI award to organize and leverage existing local, regional, and state reform initiatives and networks into a statewide systemic reform initiative. Colorado is also a participant in the Rural Systemic Initiative (RSI), which seeks to address obstacles to systemic and sustainable improvements in science, mathematics and technology education in rural, economically disadvantaged regions of the nation."

"The National Science Foundation has awarded $2.5 million dollars to the National Laboratory for Applied Network Research (NLANR) to continue technical, engineering and traffic analysis support to the high-performance networking and applications communities. The grant extends by one year NLANR's original three year cooperative agreement to support universities and institutions in connecting to the nation's research networks." "Since being formed in 1997, NLANR has excelled at developing tools, providing training, supporting individual applications and offering network-usage information to researchers in computer science and scientific computing," said Thomas Greene, NSF senior program director in the Advanced Networking Infrastructure program. "These activities contribute to what is becoming known as 'Cyber-Infrastructure,' which incorporates more varied resources than just connectivity or computational power. NSF is pleased to support this and similar projects of such quality and focus."

"NLANR is a collaboration of the National Center for Supercomputing Applications (NCSA) at the University of Illinois at Urbana-Champaign; the Pittsburgh Supercomputing Center (PSC); the National Center for Atmospheric Research (NCAR); and the San Diego Supercomputer Center (SDSC). The partnership helps more than 170 NSF-funded High-Performance Connections sites connect to and use high-performance research network backbones like NSF's vBNS (very high performance Broadband Network Services). " "NLANR develops software to help scientific users and network administrators, while designing analytical tools to help networks run smoothly. The NLANR staff works with researchers and staff at small- to mid-sized campuses and with commercial service providers, resulting in a broad impact on the networking and application communities."

"The award will be divided among three NLANR program teams: A Distributed Applications Support team at the NCSA. This team helps researchers maximize performance of their distributed applications. The team works on networked applications that are computationally intensive, including distributed data mining and shared multimedia collaborative environments. The staff delivers training sessions around the country and demonstrate NLANR-developed tools such as Iperf, Netlog, and Viznet. The Engineering Services Team, is a collaboration between the PSC and NCAR. This team provides engineering support for the integration and use of advanced network services between commercial providers and campus infrastructures, while optimizing end-to-end performance for applications over this integrated environment. NLANR network engineers also develop tools, such as Traffic Analysis and Automatic Diagnosis (TAAD), to help improve network performance. The team offers the NLANR On-Site program that provides courseware and hands-on training tailored for network engineers and disciplinary scientists. The Measurement And

Network Analysis Team, is based at SDSC. This team has created a network-analysis infrastructure by deploying both active and passive measurement devices at more than 100 locations across the networks. The team's products include statistical tools for analyzing and visualizing traffic patterns. Working with performance and flow measurements, the staff use packet information to develop service models and measure network efficiency."

In Wyoming: "In FY 1998 the NSF provided 63 awards totaling approximately $8 million to 8 institutions in Wyoming. The following were among the institutions in Wyoming that received NSF support in FY 1998: The University of Wyoming, Roosevelt High School, Deming Elementary School, and Southridge Elementary School. Examples of Projects Currently Funded by NSF in the State of Wyoming High Plains Rural Systemic Initiative (HPRSI) -- Wyoming is a participant in an NSF-sponsored project that brings together 17 American Indian Tribal colleges and other entities involved in science, mathematics, engineering, and technical education. This planning initiative will identify and coordinate efforts to identify and remove impediments to exemplary student performance among Native Americans in Wyoming, Montana, North Dakota, Nebraska, and South Dakota." "The Experimental Program to Stimulate Competitive Research (EPSCoR) is a merit-based program initiated in 1979 by NSF to broaden the geographical distribution of federal funding of academic research and development. Through EPSCoR, NSF has sought to improve the quality of science in Wyoming by working with the state to build on its existing strengths, helping establish research priorities, and creating supportive structures to enhance the competitive position of scientists in the state. The University of Wyoming received two EPSCoR grants in FY 1994 for projects which deal with developing a long-term effort between the University of Wyoming and the natural gas industry in Wyoming. A second EPSCoR project, Microwave-Induced Coal Gasification for Production of Activated Coke and Synthesis Gas will fund exploratory research to support industry in the development of an advanced coal gasification process that uses the natural resources of Wyoming." "The Model Masters Degree Program for 50 well-prepared high school mathematics teachers, primarily from Wyoming and Neighboring States. Participating teachers have a choice of 2 program formats: (1) an academic year institute, or (2) a sequential 4-summer institute. The 14 specially designed courses of the program focus on mathematical content, pedagogical issues, integration of technology into the teaching of mathematics, and assessment."

Grant and RFP announcements for further inspiration:

■Competitive Grant Program entitled: "The National Industrial Competitiveness through Energy, Environment, and Economics Program." PROGRAM SOL DE-PS36-01GO90007 DUE 071101 POC Questions may be sent to: go_nice3@nrel.gov buisnessopportunities. E-MAIL: Margo Gorin, go_nice3@nrel.gov. The Department of Energy's (DOE) Office of Industrial Technologies (OIT) is funding a competitive grant program entitled the National Industrial Competitiveness Through Energy, Environment, and Economics (NICE3) Program. The goal of the NICE3 Program is to advance U.S. competitiveness through commercial demonstration of energy efficient and clean production manufacturing and industrial technologies in industry.

■SPIN Program Number: 15795 Title: NSF--Grant Opportunities for Academic Liaison with Industry (GOALI) Sponsor: National Science Foundation Contact: Dr. M. C. Roco, Coordinator for NSF GOALI Initiative, Suite 525, 4201 Wilson Boulevard, Arlington,VA 22230 U.S.A. Email: mroco@nsf.gov Synopsis: Support is provided to collaborations of academe (faculty and students) and industry, for high-risk/high-gain research focusing on fundamental topics which would not have been undertaken by industry, development of innovative collaborative industry-university educational programs, and direct transfer of new knowledge between academe and industry.

■EPA--Regional Environmental Stewardship Program Grants, EPA--Regional Environmental Stewardship Program Grants Support is provided to states and federally recognized Native American Tribes for research, public education, training, monitoring, demonstrations and studies to reduce the risks

associated with pesticide use in agricultural and non-agricultural settings in the U.S. Approximately $498,000 is available in FY 2000. Objectives: The sponsor provides support for research, public education, training, monitoring, demonstrations, and studies. The goal of PESP is to reduce the risks associated with pesticide use in agricultural and non-agricultural settings in the United States. The purpose of the grant program is to support the establishment and expansion of Integrated Pest Management (IPM) as a tool to be used to accomplish the goals of PESP. Projects that address the risk reduction goals of the PESP, pesticide pollution prevention, Integrated Pest Management (IPM), IPM in Schools, children's health issues related to pesticides, or those research methods for documenting the trends toward the adoption of IPM or the reduction of risks associated with pesticide use will receive priority consideration. Other projects will be considered as they complement these goals through public education, training monitoring, demonstrations and studies and other activities. EPA specifically seeks to build State and local IPM capacities or to evaluate the economic feasibility of new IPM approaches at the state level (i.e., innovative approaches and methodologies that use application or other strategies to reduce the risks associated with pesticide use). Funds awarded under the grant program should be issued to support the goal of reducing the risk/use of pesticides.

■Request for Proposals for Integrated Terrestrial and Aquatic Ecosystem Activities Bureau of Reclamation, Joyce Stevenson, Contract Specialist, jstevenson@usgs.gov Branch of Acquisition & Fed. Assistance, 7801 Folsom Blvd., Ste. 210, Sacramento, CA 95826 U.S.A. 650-329-4174
Synopsis: The sponsor provides support for terrestrial, aquatic and integrated ecological monitoring and research of Colorado River ecosystem resources between Glen Canyon Dam and Upper Lake Mead, Arizona. Period of performance for this effort may be from one to three years. Objectives: Support is provided for three projects related to terrestrial and aquatic ecosystem studies: streamflow and suspended-sediment transport modeling within the Colorado River ecosystem; long-term monitoring of fine-grained sediment storage throughout the main channel of the Colorado River ecosystem; and long-term monitoring of coarse-grained sediment inputs, storage and impacts to physical habitats throughout the main channel of the Colorado River ecosystem. The mission of the GCMRC is to provide credible, objective scientific information on the effects of operating Glen Canyon Dam on the downstream resources of the Colorado River ecosystem.

■SPIN Program Number: 00555; Title: ARO--Multidisciplinary Res. Pgm. of the Univ. Res. Initiative (MURI) Sponsor: Department of the Army The sponsor supports research teams whose efforts intersect more than one traditional science and engineering discipline. The sponsor also expects that the MURI programs will promote application of defense research, principally for defense purposes but also for commercial purposes. The sponsor is seeking multidisciplinary proposals in the following areas: fundamental issues underlying infrared detection; dynamic behavior of interactive spin-based systems; microchemical systems; ultra-wideband communications; biological and chemical sensing science at terahertz frequency;.....MATHEMATICS OF FAILURES IN COMPLEX SYSTEMS;..... new adaptive, reconfigurable rf radio/sensor concepts; optimizing cognitive readiness under combat conditions; integrated control and communications for networked systems; intelligent luminiescence for communication, display, and identification; learning based control for mult parameter sensors. It is anticipated that awards will range between $500,000 to $1 million per year. The duration of the awards is for a basic period of three years with two additional years possible as options to bring the total award to five years.

■SPIN Program Number: 34596; Title: MPS--Division of Chemistry--Research Programs Sponsor: National Science Foundation Contact: Janet G. Osteryoung, Director Address: Division of Chemistry Suite 1055, 4201 Wilson Boulevard Arlington,VA 22230 Email: josteryo@nsf.gov
Sponsor funds research and related activities in the following areas: Analytic and Surface Chemistry, Inorganic, Bioinorganic, and Organometallic Chemistry, Organic Chemical Dynamics, Organic Synthesis, Experimental Physical Chemistry, Theoretical and Computational Chemistry. The sponsor also provides

support for collaborative projects in several other areas, including activities at the chemistry-chemical engineering interface, and high-risk innovative projects that are critical to the field of chemistry but outside the normal responsibilities of the Chemistry Division programs.

■SPIN: Program Number: 09112 Title: MPS/ENG--Environmentally Benign Chemical Synth. & Process. Sponsor: National Science Foundation Contact: Dr. Margaret A. Cavanaugh, Pgm. Director Address: Dir. for Mathematical and Physical Sci., Division of Chemistry, 4201 Wilson Blvd. Arlington,VA 22230 U.S.A. Email: mcavanau@nsf.gov Support is provided to individuals and groups of investigators at academic research institutions in the U.S. for fundamental research on environmentally benign chemical synthesis and processing aimed at reducing pollution at its source. Awards are made for two to three years.

■SPIN Program Number: 56421 Title: DARPA--Multidisciplinary Res. Pgm. of the Univer. Res. Init. (MURI) Sponsor: Defense Advanced Research Projects Agency Contact: Dr. Robert Leheny, 3701 North Fairfax Drive, Arlington,VA 22203-1714 U.S.A. Synopsis: Support is provided for multidisciplinary research, which includes the following topical areas: biomimetic cell and tissue stasis, electromagnetic metamaterials, and photocatalytically active nanoscale scavengers and sensors. The average award is between $500,000 and $1 million per year for up to a five year duration. Eligible applicants are U.S. colleges and universities, with degree-granting programs in science and/or engineering. The sponsor supports research teams whose efforts intersect more than one traditional science and engineering discipline. The sponsor is seeking proposals in the following areas: biomimetic cell and tissue statis, electromagnetic metamaterials, photocatalyticlly active nanoscale scavengers and sensors (PANSS), human activity recognition from a network of vision sensors, automated self configuring surveillance networks, ... STATISTICAL MACHINE TRANSLATION, ...quality of service technologies for distributed systems. It is anticipated that awards will range between $500,000 to $1 million per year. The duration of the awards is for a basic period of three years, with two additional years possible, to bring the total award to five years.

■SPIN Program Number: 59242 Title: RFP--Task G-BAA for Applied Research Under the Desalination and Water Purification Research and Development (DWPR) Program Sponsor: Bureau of Reclamation Contact: Diana Mulligan, Bureau of Reclamation, Acquisition Operations Group, Code D-78, Denver Federal Center, PO Box 25007 Denver,CO 80225 U.S.A. dmulligan@do.usbr.gov Synopsis: The sponsor provides support for high risk/high return, exploratory research feasibility studies on new technologies applied to the environment. Eligible applicants are U.S. academic institutions and nonprofit research institutions in support of individual researchers or small groups. Approximately $3 million is available to fund an estimated twenty awards of up to $100,000 each for project periods of two years or less. Objectives: The sponsor provides support for high risk/high return, exploratory research feasibility studies (Phase I) on new technologies applied to the environment. Research must be based on novel ideas that are not already widely researched and published; the novel ideas may be supported by only limited preliminary data. Proposals must contain a high level of engineering input and focus on one of the following three areas of environmental technology: environmental sensing, remediation, environmentally benign manufacturing processs and materials.

■SPIN Program Number: 59503 Title: RFP--Supporting Science and Enabling Technologies for Clean Fuels Sponsor: Department of Energy Contact: Larry D. Gillham, Contract Specialist, National Energy Technology Laboratory, PO Box 10940, MS 921-107, Pittsburgh, PA 15236-0940 U.S.A. gillham@netl.doe.gov NETL is seeking proposals for cost-shared research and development projects that will lead to advanced clean fuels that: (1) are derived from a diverse mix of secure energy resources; (2) enable mobile (ground, air, and marine) and stationary systems (e.g., home heating and industrial boilers) to comply with increasingly stringent Federal, state, and local emissions standards; (3) are compatible with existing liquid and/or designed in concert with future fuels infrastructures; (4) satisfy commercial and military requirements; (5) enable the efficiency of the transportation fleet to be more than doubled, and (6) are cost

competitive with conventional fuels.

■SPIN Program Number: 07713 Title: NETL--Support of Adv. Fossil Resource Utilization Research by HBCUs Sponsor: Department of Energy Contact: Debra A. Duncan, National Energy Technology Laboratory, Acquisition and Assistance Division, P.O. Box 10940, MS 921-107, Pittsburgh, PA 15236-0940 duncan@netl.doe.gov Synopsis: The sponsor supports research related to fossil resource conversion and utilization. Eligible applicants are Historically Black Colleges and Universities and Other Minority Institutions. Approximately four to eight research and development awards (maximum funding $200,000) and two to twelve faculty-student exploratory proposals (maximum funding of $20,000) will be funded. Objectives: The sponsor supports innovative research and development by HBCUs, in collaboration with the private sector, for advanced concepts related to fossil energy utilization and conversion. The goal of this program is to improve prospective U.S. commercial capabilities, and to increase scientific and technical understanding of the chemical and physical processes involved in the conversion and utilization of fossil fuels, thereby broadening fossil resource and technology benefits to our commerce and the consumer. Grants are intended to maintain and upgrade educational, training, and research capabilities of HBCU/OMIs in the fields of science and technology related to fossil energy resources; to foster private sector participation, collaboration, and interaction with HBCU/OMIs; and to provide for the exchange of technical information and to raise the overall level of HBCU/OMI competitiveness with other institutions in the field of energy research and development.

■SPIN Program Number: 59201 Title: RFP--Competitive Grant Program Entitled the National Industrial Competitiveness through Energy, Environment and Economics Sponsor: Department of Energy Contact: Margo Gorin, Golden Field Office, 1617 Cole Blvd., Golden,CO 80401 U.S.A. Email: go_nice3@nrel.gov (DOE) Office of Industrial Technologies (OIT) is funding a competitive grant program entitled the National Industrial Competitiveness Through Energy, Environment, and Economics (NICE3) Program. The goal of the NICE3 Program is to advance U.S. competitiveness through commercial demonstration of energy efficient and clean production manufacturing and industrial technologies in industry. This is accomplished by providing cost-shared, financial assistance to state and industry partnerships. Projects funded by NICE3 will achieve cleaner production in the U.S. manufacturing and industrial sectors through the adoption of energy efficient and cleaner production techniques. Cleaner production refers to manufacturing and industrial processes that result in reduced energy use, waste, and emissions. These processes, when implemented in industry, improve U.S. industrial productivity and economic competitiveness. It is expected that projects selected for one-time financial assistance awardwill yield new processes and/or equipment that can significantly reduce use of energy and energy intensive feed-stocks and reduce generation of wastes in industry. This goal is consistent with the mission of the Office of Energy Efficiency and Renewable Energy (EERE), which is to develop and promote the adoption of cost-effective renewable energy and energy efficiency technologies within the building, industrial, transportation, and utility sectors for the benefit of economic competitiveness, energy security, and environmental quality of the nation. The following OIT focus industries, which are dominant energy users and waste generators in the U.S. manufacturing sector, are of particular interest to the program: Agriculture, Aluminum, Chemicals, Forest Products, Glass, Metal-casting, Mining, and Steel.

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