

Secretary of Energy Watkins Speaks to Staff *Sees Fusion as Hope for the Future*

"I'm convinced that fusion is one of mankind's hopes for survival," Secretary of Energy James D. Watkins told a crowd of nearly 400 PPPL staff members during his visit here May 3. Seeing an urgent need for a vision of fusion as an important future energy source, Watkins asked scientists at PPPL to "get vocal" and "put the excitement back in fusion." Otherwise, he fears that future budget caps could "pull defeat from the jaws of victory." He

asserted, "We have to...make sure we don't mortgage the future of this country based on year-in and year-out budgetary concerns."

Of the work here, he said, "TFTR represents a happy marriage between theory and applied technology—the vision to believe we can harness the power of the stars linked with practical acumen and technical expertise." He added, "Albert Einstein would be delighted to see where you're headed today."

Watkins congratulated PPPL on the track records being set on the road to fusion energy, noting that the National Energy Strategy viewed the Laboratory as "technically mature" and ready to move forward with deuterium-tritium.

International Collaboration

"We will need international collaboration in funding and scientific effort to bring fusion research to fruition, so we will have to pull together in a new way," Watkins observed. "You'll see much more effort on our part to bring that about."

Watkins noted that fusion is now in transition from three decades of research to a goal-oriented, cohesive development program—moving through a continuum from TFTR to the Burning Plasma Experiment (BPX) to the International Thermonuclear Experimental Reactor (ITER). He sees the future of fusion energy research as close on the horizon, suggesting that by 2015 feasibility can be proved, by 2025, an operational model can be built, and by 2040 fusion can be available commercially.

As plans unfold, Watkins emphasized the need for early industrial involvement so that commercial enterprises will later have the expertise necessary to make fusion available in the United States. For example, he suggested that by investing 80 percent of BPX dollars in industrial involvement, Ameri-



Photo: James Faczak

Secretary Watkins (second from left) presented the Award for Outstanding Safety Achievement to TFTR staff representatives Larry Guttadora (left), Kris Gilton (holding the award), and Mike Anderson. David T. Goldman, Acting Manager of the Department of Energy's Chicago Operations Office, is at right. The award reads, "In recognition of the Tokamak Fusion Test Reactor Project staff's dedication to safety, evidenced by 1,500,000 work-hours without a lost-time accident."

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can commercial motivation can be strongly encouraged.

Safety First

During a tour of TFTR before his talk, Watkins had presented a Safety Award to the TFTR staff for their superior record of no lost-time accidents since October, 1987. He was also shown CAMEO (Computer Aided Management of Emergency Operations), which was designated as "Noteworthy" in the Tiger Team Report. CAMEO significantly aids workers in locating potential hazards during an emergency.

"Worker health and safety are not peripheral," Watkins asserted during his talk. He congratulated PPPL on a "very good professional exchange" with the Tiger Team staff. "You are the first to get the message, other than Lawrence Berkeley," he said, expressing his ap-

proval of the 72 percent accuracy rate the Laboratory had in the self-assessment process. He is pleased that PPPL already has an Action Plan in place for correcting problems and looks forward to the time when the Lab has a 90 percent accuracy rate in Self-Assessment. Then, he noted, DOE visits can be less frequent.

Educating Students, Educating the Public

Referring to his visit to Franklin Elementary School in Trenton earlier in the afternoon, Watkins said, "I was witness to heartening evidence of PPPL's involvement in science education at the precollege level." He noted that the Laboratory has made a significant contribution to several schools, and urged further action, "so that our potential Einsteins don't languish unnoticed." He also emphasized the need

for *all* students to receive a strong foundation in basic science and for teachers to receive ongoing support.

Watkins ended his talk by once again encouraging the audience to speak out for fusion. "I can't do it alone," he said. "Help me to educate the larger body politic. Make your views known to your senators and Congress people, and speak to delegations around the country. You're respected by those who hold the purse strings and by the media. Support me in the fight to continue fusion as the hope for mankind's future." ■

A video of Secretary Watkins' talk will be shown on Tuesday, May 14, at 11:30 a.m. and 12:15 p.m. in the MBG Auditorium. Videotapes of the talk are available for loan through the Photo Lab, ext. 2090.

Van Allen to Give Ellis' Memorial Lecture

James A. Van Allen will give the Robert A. Ellis, Jr. Memorial Lecture on Wednesday, May 15, 1991 at 4:15 p.m. in the M.B. Gottlieb Auditorium. He will speak on "The Magnetospheres of the Planets." Bob Ellis was Van Allen's first graduate student.

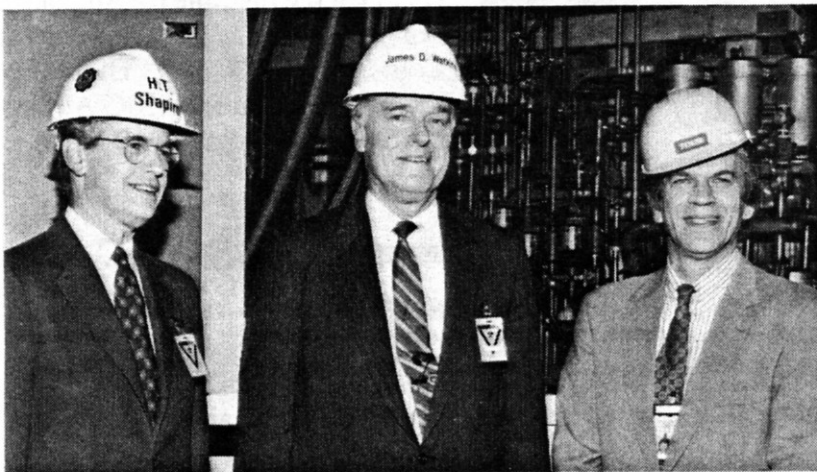
Van Allen is best known for pioneering work on cosmic radiation, carried out by him and his graduate students at the University of Iowa, first (1953) using balloon-launched rockets and later (1958) using small earth satellites. Former PPPL Director Mel Gottlieb was one of his collaborators.

Experiments flown on Explorer I, the first American satellite to orbit the earth, led to the discovery of geomagnetically trapped corpuscular radiation encircling the earth like a belt. This phenomenon was dubbed by Robert Jastrow as the (inner) Van Allen Belt.

Van Allen is editor of *Scientific Uses of Earth Satellites* and a prolific author on such topics as nuclear physics, auroral physics, cosmic rays, solar X-rays, and the magnetospheres of the Earth, Jupiter and Saturn. Van Allen is Professor Emeritus in the Department of Physics and Astronomy at the Uni-

versity of Iowa, where he has served since 1951.

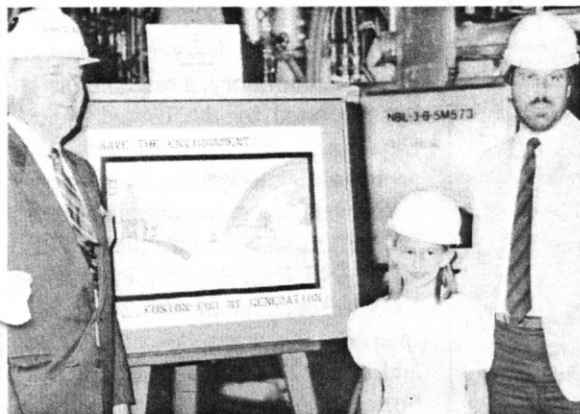
Bob Ellis was one of the pioneers of magnetic fusion research. In 1956, he came to PPPL, then called Project Matterhorn, to begin work in plasma physics. He was Head of the Experimental Projects Division at PPPL, a member of the Laboratory Council, and a Councillor-at-Large of the American Physical Society at the time of his death in December, 1989. During his career, Dr. Ellis served in many capacities related to fusion research both nationally and internationally. ■



Princeton University President Harold Shapiro (left) joined Secretary Watkins and PPPL Director Ron Davidson (right) for the tour of TFTR.



Pete Del Gandio (left), Head of Special Projects in the ES&H Division, shows Secretary Watkins the CAMEO system while Mike Spadafora (right), who works with the system, looks on. CAMEO (Computer Aided Management of Emergency Systems) was designated a "Noteworthy Practice" by the Tiger Team.



Christine Williams, winner of a national first prize in the DOE Earth Day Poster Contest for 1990 shows her work to Secretary Watkins during his tour of TFTR.



Photo: James Faczak

During his visit to the Trenton Franklin Elementary School, Secretary Watkins (second from left) watched as science teacher John Hilcovich (left) and students Victor Rodriguez (far right), and Marc Spagniccolo demonstrated how an alka seltzer tablet can be used as a circuit breaker in their "flood alarm" science project. Watkins' visit was prompted by the PPPL Science Education Partnership with the school. The Science Education Program here was designated a "Noteworthy Practice" during the Tiger Team visit.



TFTR Project Head Dale Meade (left) discusses TFTR with Secretary Watkins as PPPL Director Ron Davidson and N. Anne Davies, Associate Director, Office of Fusion Energy look on. They are framed by a one-quarter segment mock-up of the TFTR stainless steel vacuum vessel.

TRANSITIONS

PROMOTIONS

Richard Gallagher has been promoted to Manager, Plant Maintenance and Operations. He was previously a Machine Technical Supervisor in TFTR.

Susan Pontani has been promoted to Supervisor, TFTR Computer Operations. She was previously Senior Computer Operator in the same group.

Edward Simmons has been promoted to Technician VI in the TFTR Neutral Beams Ion Source Assembly Group. He was previously an Electromechanical Technician V in the ICRF Operations Group in TFTR.

Russell Wester has been promoted to Machine Technician Supervisor from his previous position

as Deputy Machine Technician Supervisor in TFTR.

NEW HIRES

James Faczak is Senior Photographer in the Photography Laboratory.

Michael Kalish is a Mechanical Engineer in the Mechanical Engineering Division.

Margaret Kevin is a Data Processing Assistant in the Maintenance Control Branch.

Douglas Matthews is a Janitor in Plant Maintenance.

Deborah Nohstadt is a Secretary in Procurement within the Subcontracts Branch.

George Ochs is a Boiler Operator within Plant Maintenance and Operations.

Coming Colloquium

Wednesday, May 22, Freeman Dyson of the Institute for Advanced Studies will speak on "The Hunt for Comets and Planets." The colloquium will be in the MBG Auditorium and will begin at 4:15 p.m.

CLASSIFIED

FOR SALE—1986 Toyota Celica GT Liftback. Black, five speed, 47,000 miles; new tires, am/fm, cassette, air conditioning, cruise control, power pack; asking \$6800. Call Kenny Silber, ext. 2544.

Don't Forget Our Troops!

Please bring your contributions, ASAP, for a Care Package to be sent to Saudi Arabia to Marilyn Hondorp, LOB 368, ext. 2656, or to Barbara Sobel, LOB374, ext. 2602.



Recently hired employees enjoy a moment in the sun of the PPPL C-Site Courtyard. Left to right are: (front row), Margaret Kevin, Deborah Nohstadt, and George Ochs; (second row), Douglas Matthews, Jim Faczak, and Michael Kalish.

Photo: Dietmar Krause

HOTLINE

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