

COMING UP

Invitation to the ZIRAT13 and LCC4 Seminars 2009

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SUAT ODAR

How did you get started as an engineer?
I studied Chemistry at the Technical University in Darmstadt/Germany. There I received my Ph.D in 1970.

Your career history?

After my military duty of two years I started my engineering career as a research chemist at the Institute for inorganic and physical chemistry of the Technical University of Darmstadt. Three years later, in 1975, I joined the Power Plant Chemistry Department of KWU, working first as a site chemist at the KWU's construction site Nuclear Power Plant Gösgen / Switzerland. The three years of site work during the construction and commissioning was very educative for me and it determined my future career. After this period, I was working at the head office of Siemens-KWU and was responsible for the elaboration of power plant chemistry documents, such as of chemistry handbooks, procedures for commissioning, etc. Mid-of the eighties, I changed my work activities to service, providing worldwide consultation to nuclear power plants of other vendors as a trouble-shooter. My main activity areas among others were the steam generator corrosion and thermal performance, corrosion product control on the secondary side and dose rate reduction on the primary side. I took a lead responsibility in most of these service activities; and since beginning of the nineties, I began to direct the power plant chemistry service activities at Siemens for about ten years. One of my major responsibilities was the Siemens High Temperature SG

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“Don’t Leave Home Without It”

SCOTT FERGUSON, PRINCIPAL ENGINEER
WOLF CREEK NUCLEAR OPERATING CORPORATION



I BEGAN AUDITING fuel fabrication processes in 1983. I was trained on quality assurance audit techniques, but there were essentially no sources available to learn the intricacies of fuel fabrication. Therefore, I entered the school of ‘learning by experience’ and we all know that ‘experience’ is something you acquire after you need it! Fortunately, I did have a good mentor.

tion of components and the production of the completed fuel assembly. The handbook also contains a description of fuel assembly types, qualification programs and quality assurance systems.

For example, the pellet fabrication section discusses the preparation of the uranium dioxide powder, and the pressing, sintering, grinding and inspection of the pellet. Each section discusses the process parameters that influence the characteristics and quality of the final product. A recommendation of priority items to be audited is provided at the conclusion of the section.

It is now 2008. I have acquired twenty-five years of experience and I am now the mentor for our junior engineers. Fortunately for them, we have a great resource available in the Fuel Fabrication Process Handbook. This handbook contains the what, why and how to perform oversight of fuel fabrication processes. It reviews the processing of raw uranium and zirconium, fabrica-

The authors of this handbook have condensed decades of experience into a single volume. I make sure that any new engineer becomes familiar with the handbook before attempting to audit a fuel fabrication process. Further, I never leave home without it when I am performing an audit. It has become an invaluable reference to ensure that I am auditing the important characteristics of fuel fabrication.

Provides the “*what, why and how*” to look at in an audit!



The objective of this handbook is to provide guidance for a cost effective audit which uses audit time on areas which are most likely to affect the performance of the fuel. Until now twentyfive (25) nuclear utilities, fuel vendors, research laboratories and regulatory agencies in the US, Europe and in Asia have purchased this Handbook.

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Chemical Cleaning process. In the second half of the nineties, I took the responsibility for marketing the Siemens-KWU (later Framatome and AREVA) power plant chemistry products in Europe and North America, especially in Canada. During my last five years with AREVA before my retirement, I was responsible for power plant chemistry issues.

How did you get introduced to ANT International and the LCC Program?

I got very detailed information about the LCC Seminars held by ANT International from one of my customers; and I liked the content of their annual book. Since we hired new young engineers for generation replacement in AREVA; I thought these seminars would be an excellent education for them. So I applied AREVA for LCC membership and attended with my young engineers the ANT International LCC2 Seminar in 2006. After this seminar, I was asked by Peter Rudling, to work for ANT International LCC program.

How has the field of water chemistry issues changed during your career?

During the 33 years of my activities on power plant chemistry for Siemens-KWU water chemistry, the issues in power plant chemistry changed a lot worldwide. For Siemens designed PWRs we were lucky to have previously done the correct material and design selection to modify the water chemistry only once in order to avoid SG corrosion problems on the secondary side and to reduce the radiation exposure on the primary side. However, worldwide the water chemistry has changed and is still changing due to the inappropriate selection of materials and/or design.

What do you foresee for the future in the nuclear industry and how does the LCC Program fit in?

In my opinion, as it is also written in many publications, nuclear industry is experiencing a form of renaissance. With the depletion and cost increase of scarce energy resources and the growing worries on environmental pollution, the market is recognizing the efficiency and

value of nuclear chemistry. Recognizing this potential, all vendors and utilities that had been slowing down hiring experts in this area over years, realize the need to hire young engineers to replace the old generation. Unfortunately most of these companies or utilities, due to their daily work load, have not sufficient possibilities or capabilities to submit their “know-how” to the younger generation. Here, I think the LCC program can contribute a lot for know-how transfer to the successor generation.

How do you spend your leisure time?

During my professional life I had to travel often on business trips, and therefore I tried to spend my leisure time mostly with the family. This will continue during my retirement. As much as my leisure time permits, I enjoy traveling, hiking, swimming and visiting archeological sights. At home, I like to play Fussball with my granddaughter, read historical books and also listen to classical music.

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