

**DR. ARIS CANDRIS
LIFETIME ACHIEVEMENT AWARD**

**REMARKS
NUCLEAR ENGINEERING INSTITUTE**

IT'S A GREAT PLEASURE TO BE WITH YOU AND TO GRACIOUSLY ACCEPT THIS AWARD.

YOU KNOW, ITS STILL HARD TO BELIEVE THAT I'M ACTUALLY RETIRED. I MEAN, I DON'T FEEL RETIRED. I HAVEN'T REALLY "SLOWED DOWN" MUCH, IF AT ALL. AND ISN'T THAT WHAT YOU'RE SUPPOSED TO DO WHEN YOU RETIRE?

IT REALLY DOESN'T SEEM LIKE 37 YEARS HAVE GONE BY SINCE I FINISHED COLLEGE AND DECIDED TO PURSUE A GRADUATE DEGREE IN NUCLEAR SCIENCE. I REMEMBER MY FIRST DAY AT WESTINGHOUSE IN 1975....I STARTED AS A SENIOR ENGINEER, FRESH OUT OF SCHOOL. AND WHEN I LOOK BACK ON MY CAREER – ALL OF IT AT WESTINGHOUSE – I FEEL VERY FORTUNATE AND PROUD OF THE CONTRIBUTIONS WE'VE MADE, PARTICULARLY IN THE FACE OF SOME VERY CHALLENGING CIRCUMSTANCES.

YOU'VE ALL HEARD THE CHINESE PROVERB, OR CURSE, DEPENDING ON HOW IT WORKS OUT FOR YOU...."MAY YOU LIVE IN INTERESTING TIMES."

ALL OF MY LIFE, I'VE BEEN A SELF-PROFESSED GEEK. I TRIPLE-MAJORED IN MATH, PHYSICS AND ENGINEERING AS AN UNDERGRADUATE BEFORE GETTING MY MASTERS AND PH.D. IN NUCLEAR SCIENCE AT CARNEGIE MELLON. SO FOR SOMEONE OF MY AGE AND GENERATION, IN THIS PARTICULAR INDUSTRY, WE HAVE MOST CERTAINLY LIVED IN VERY INTERESTING TIMES.

EVERYTHING WE KNOW ABOUT THE COMMERCIAL GENERATION OF ELECTRICITY FROM NUCLEAR POWER HAS TAKEN PLACE IN MY LIFETIME. EVERY REACTOR IN OPERATION TODAY WAS BUILT IN MY LIFETIME. AND EVERY MAJOR ACCIDENT IN THE HISTORY OF THIS INDUSTRY HAS OCCURRED IN MY LIFETIME.

FOR A NUCLEAR ENGINEER LIKE MANY OF US, AND FOR A GEEK LIKE ME, I'D SAY THOSE ARE INTERESTING TIMES.

TIME AND AGAIN, THROUGHOUT THE COURSE OF MY CAREER, WE'VE LIVED THROUGH THE HIGHEST HIGHS AND THE LOWEST LOWS IN THE HISTORICAL TIMELINE OF THE NUCLEAR POWER INDUSTRY. AND NOW, FULLY ONE-FIFTH OF OUR NATION'S ELECTRICITY SUPPLY COMES FROM A TECHNOLOGY THAT'S LITERALLY GROWN UP WITH ME.

YET DESPITE ALL THE TURBULENCE OF THREE MILE ISLAND, CHERNOBYL, AND MOST RECENTLY, FUKUSHIMA...AMID THE UPS AND DOWNS (ALTHOUGH MOSTLY UPS) OF OIL PRICES, NATURAL GAS DEVELOPMENT, NEW GREEN ENERGY TECHNOLOGIES, AND GROWING WORLDWIDE DEMAND FOR ELECTRICITY, I STILL BELIEVE THAT OUR INDUSTRY'S BEST DAYS ARE AHEAD OF US.

MUCH HAS BEEN WRITTEN AND SAID REGARDING THE FUTURE OF OUR INDUSTRY AND THE POTENTIAL NEGATIVE IMPACT OF HISTORICALLY LOW NATURAL GAS PRICES, GLOBAL ECONOMIC UNCERTAINTIES AND, OF COURSE, THE ACCIDENT AT FUKUSHIMA, WHICH IS STILL FRESH IN THE NEWS MEDIA AND IN THE MINDS OF MILLIONS OF PEOPLE WORLDWIDE.

SOME HAVE EVEN SUGGESTED THAT THE NUCLEAR RENAISSANCE THAT CAPTURED OUR IMAGINATION JUST A FEW SHORT YEARS AGO, NOW WON'T EVEN BE REALIZED, AND THAT NUCLEAR ENERGY WILL FALL OUT OF FAVOR TO THE POINT THAT THE PERCENTAGE OF GLOBAL ELECTRICITY GENERATED BY NUCLEAR PLANTS WILL DROP BY MORE THAN HALF.

ADMITTEDLY, MUCH OF THIS SKEPTICISM IS HELD BY THOSE WITH HISTORICALLY ANTI-NUCLEAR POINTS OF VIEW. AND THERE ARE EVEN SOME WITHIN OUR INDUSTRY WHO BELIEVE THAT MUCH OF THE NEW GENERATING CAPACITY THAT WILL BE NEEDED TO SUPPORT ECONOMIC GROWTH AROUND THE WORLD – AND WHICH WAS ONCE THOUGHT DESTINED TO ORIGINATE FROM NUCLEAR PLANTS – WILL NOW COME FROM GAS-FIRED PLANTS, AT LEAST FOR THE NEXT DECADE OR SO.

SO WHILE OUR INDUSTRY CLEARLY FACES SOME CHALLENGES, WORLDWIDE ENERGY DEMAND AND CARBON-EMISSION REDUCTION GOALS WILL REQUIRE THAT NUCLEAR ENERGY CONTINUE TO PLAY AN INCREASINGLY LARGER ROLE IN ELECTRIFYING THE DEVELOPING WORLD, POWERING ECONOMIC GROWTH IN THE INDUSTRIALIZED WORLD AND REPLACING OLDER FOSSIL FUEL PLANTS EVERYWHERE.

DURING MUCH OF MY CAREER IN THE NUCLEAR POWER INDUSTRY, WE ENDURED AN HISTORIC DROUGHT OF NEW ORDERS FOR POWER PLANTS IN THE U.S...MORE THAN 30 YEARS. HAS THERE EVER BEEN AN INDUSTRY THAT SURVIVED THREE DECADES WITHOUT SELLING ITS PREMIER PRODUCT?

BUT WE USED THAT TIME WISELY, AND DEVELOPED NEW TECHNOLOGY AND ENGINEERING DESIGN FOR A NEW GENERATION OF POWER PLANTS THAT WOULD GIVE UTILITY CUSTOMERS WHAT THEY NEEDED MOST...SAFETY, RELIABILITY AND COST CONTROL. AT WESTINGHOUSE, THAT DESIGN WAS THE AP1000.

TODAY, GLOBALLY, MORE THAN 60 NEW NUCLEAR POWER PLANTS ARE UNDER CONSTRUCTION AND WELL OVER 100 MORE ARE BEING CONSIDERED AS THE GENERATING SOURCE TO MEET THE RISING DEMAND FOR ELECTRICITY.

JUST THIS PAST DECEMBER, THE U.S. NUCLEAR REGULATORY COMMISSION GRANTED FINAL CERTIFICATION FOR THE WESTINGHOUSE AP1000. LESS THAN TWO MONTHS LATER, THE AGENCY APPROVED THE COMBINED CONSTRUCTION AND OPERATING LICENSE FOR TWO AP1000 PLANTS TO BE BUILT AT SOUTHERN NUCLEAR'S VOGTLE SITE IN GEORGIA AND THEN FOR TWO MORE UNITS TO BE BUILT AT SOUTH CAROLINA ELECTRIC & GAS CO.'S V.C. SUMMER SITE IN SOUTH CAROLINA.

IN CHINA, WESTINGHOUSE IS PROVIDING THE FIRST FOUR OF MANY NEW AP1000 NUCLEAR POWER PLANTS THAT WILL BE COMPLETED ON TIME AND ON-BUDGET. THEIR SUCCESSFUL CONSTRUCTION – WHICH IS ON SCHEDULE – IS PROOF THAT NUCLEAR ENERGY PLANTS, ESPECIALLY THE AP1000 PLANT, CAN BE BUILT EFFICIENTLY AND WITHOUT THE SCHEDULING DELAYS AND COST OVERRUNS THAT PLAGUED OUR INDUSTRY 40 YEARS AGO. AND THE

UNIQUE PASSIVE SAFETY FEATURES OF THIS FIRST-OF-A-KIND GENERATION III+ PLANT SHOULD ALLAY ANY CONCERNS ABOUT CATASTROPHIC NATURAL DISASTERS LIKE THE ONE IN JAPAN LAST YEAR.

ADDITIONALLY, NEW GLOBAL GENERATING AND COST DATA AGAIN CONFIRM THAT THE NUCLEAR OPERATING FLEET CONTINUES TO BE MORE THAN COST COMPETITIVE WITH VIRTUALLY ALL OTHER GENERATING SOURCES.

AND THERE ARE OTHER SIGNS THAT NUCLEAR ENERGY WILL, IN FACT, ACHIEVE ITS FULL GLOBAL POTENTIAL.

EARLIER THIS YEAR, THE U.S. DEPARTMENT OF ENERGY ISSUED THE FUNDING OPPORTUNITY ANNOUNCEMENT FOR SMALL MODULAR REACTORS, OR SMR'S, A MOVE THAT WILL FACILITATE FURTHER DEVELOPMENT AND DEPLOYMENT OF THESE REACTORS, NOT ONLY IN THE UNITED STATES, BUT AROUND THE WORLD.

WESTINGHOUSE, USING MUCH OF WHAT WE HAVE LEARNED AND CONTINUE TO LEARN IN DEVELOPING, LICENSING AND DEPLOYING THE AP1000 DESIGN, WILL ACTIVELY PURSUE THIS FUNDING, WHILE CONTINUING TO MAKE OUR OWN SIGNIFICANT INVESTMENT TOWARD ACHIEVING COMMERCIAL OPERATION OF THE FIRST WESTINGHOUSE SMR IN 2022.

SO DESPITE THE OVERWHELMING CHALLENGES OUR INDUSTRY HAS FACED, ON NEARLY EVERY CONTINENT AND OVER MORE THAN THREE DECADES, NUCLEAR INDUSTRY REMAINS A VITAL AND CRITICALLY IMPORTANT FOUNDATION OF GLOBAL STABILITY AND ECONOMIC GROWTH. TO THE CREDIT OF EVERYONE WHO HAS DEVOTED THEIR ENERGY AND TALENT TO THE SUCCESS OF OUR INDUSTRY, WE HAVE LEARNED FROM THE LESSONS OF HISTORY AND RESPONDED WITH INNOVATION AND TECHNOLOGY TO MEET THE GROWING DEMANDS FOR SAFETY AND RELIABILITY IN OUR INDUSTRY.

SO, AS I HAVE BEEN SINCE MY VERY FIRST DAY OF WORK AT WESTINGHOUSE 37 YEARS AGO, I'M OPTIMISTIC ABOUT THE LONG-TERM FUTURE OF OUR INDUSTRY. I'VE FELT THAT WAY EVERY DAY SINCE AND I FEEL MOST FORTUNATE TO HAVE HAD A FRONT-ROW SEAT TO THE

RISE, AND FALL, AND RISE AGAIN OF AN INDUSTRY TO WHICH I HAVE DEVOTED MY ENTIRE PROFESSIONAL CAREER.

I THANK YOU AGAIN FOR THIS GREAT HONOR, AND MY BEST WISHES TO ALL OF YOU FOR CONTINUED SUCCESS.

