IDAHO NATIONAL LABORATORY – OUR RADIOACTIVE BACKYARD PROVIDED BY BEATRICE BRAILSFORD, NUCLEAR PROGRAM DIRECTOR AT THE SNAKE RIVER ALLIANCE







The Idaho National Laboratory (INL) was established in 1949 and covers 890 square miles of eastern Idaho's Arco Desert. It sits at the base of the Lemhi and Lost River mountain ranges just east of Craters of the Moon in one of the most beautiful parts of our state. The Site occupies part of the aboriginal lands of the Shoshone-Bannock Tribes, and people have lived there for well over 10,000 years.

IT IS ONE OF A COMPLEX OF SITES AROUND THE COUNTRY THAT WORK WITH NUCLEAR WEAPONS, POWER, AND WASTE FOR THE US GOVERNMENT.

INL was built above the Snake River Aquifer, which flows westward beneath the Site. The aquifer underlies 10,000 square miles of Idaho's high desert plain, holds as much water as Lake Erie, and is the sole source of drinking water for 300,000 Idahoans. It is our lifeblood.

SIXTY YEARS OF INTENTIONAL AND CARELESS ACTIVITIES AT INL HAVE CONTAMINATED THE SNAKE RIVER AQUIFER, AND THE SITE WAS NAMED TO THE SUPERFUND LIST OF THE COUNTRY'S MOST POLLUTED PLACES IN 1989. IN THE EARLY DAYS, MOST IDAHOANS WERE ESSENTIALLY UNAWARE OF THE IDAHO NA-TIONAL LABORATORY. BUT BY THE 1960S AND 1970S, INDIVIDUALS, ELECTED OFFI-CIALS, AND THE FOUNDERS OF THE SNAKE RIVER ALLIANCE WERE CHALLENGING NUCLE-AR ACTIVITIES AND THE CONTAMINATION THREATENING IDAHO'S LAND AND WATER

INL was built in one of the most beautiful parts of Idaho.

INL'S WORK AND ITS POLLUTION



NUCLEAR NAVY REACTOR DEVELOPMENT AND TRAINING THAT'S RIGHT. INL WAS THE BIRTHPLACE OF THE NUCLEAR NAVY. THE PROTOTYPE REACTOR FOR THE USS NAUTILUS, THE NAVY'S FIRST NUCLEAR-POWERED SUBMARINE, WAS TESTED IN THE MIDDLE OF THE ARCO DESERT, AND SAILORS TRAINED THERE FOR DECADES. THERE ARE NOW NO REACTORS AT THE NAVAL **REACTORS FACILITY, BUT ALL OF** THE SPENT FUEL FROM THE NUCLEAR NAVY COMES TO IDAHO FOR "INTERIM" STORAGE. THE NUCLEAR NAVY NOW PLANS TO BUILD A NEW, EXPANDED SPENT FUEL STORAGE FACILITY AT THE SITE.

MATERIALS PRODUCTION FOR THE US NUCLEAR WEAPONS COMPLEX REPROCESSING LINKS A NUCLEAR REACTOR AND A NUCLEAR BOMB BECAUSE IT EXTRACTS BOMB INGREDIENTS FROM THE REACTOR'S SPENT NUCLEAR FUEL. AT INL, SPENT FUEL WAS REPROCESSED BY DISSOLVING IT IN HEATED, LIQUID ACID TO EXTRACT THE HIGHLY-ENRICHED URANIUM IT CONTAINED. THAT IN TURN LEFT MILLIONS OF GALLONS OF INTENSELY RADIOACTIVE, ACIDIC, LIQUID WASTE IN BURIED TANKS. MUCH OF IT WAS LATER DRIED INTO A POWDER, BUT A NEW, \$800-MILLION FACILITY HAS NOT YET SUCCEEDED IN TREATING THE LAST 900,000 GALLONS. IN ADDITION TO THE TANKED WASTE, BILLIONS OF GALLONS OF RADIOACTIVE AND CHEMICALLY HAZARDOUS LIQUID WASTE FROM REPROCESSING WERE INJECTED DIRECTLY INTO THE AQUIFER UNTIL PUBLIC PRESSURE, LED BY THE ALLIANCE, HALTED THAT PRACTICE IN THE MID-1980S.

ONGOING NUCLEAR WASTE STORAGE AND DISPOSAL INL RECEIVED NEARLY ALL THE PLUTONIUM-CONTAMINATED WASTE FROM THE ROCKY FLATS NUCLEAR WEAPONS PLANT IN COLORADO, AND MUCH OF

IT WAS DUMPED IN UNLINED PITS AND TRENCHES. SO WAS MORE THAN 5 MILLION CUBIC FEET OF LOW-LEVEL WASTE. MUCH OF THE WASTE INL NOW PRODUCES IS SENT OFF SITE, BUT THE MOST RADIOACTIVE CONTINUES TO BE BURIED ABOVE THE AQUIFER. INL STORES, ON AN "INTERIM" BASIS, 308 METRIC TONS OF SPENT NUCLEAR FUEL FROM ALL OVER THE WORLD AND FROM ALL TYPES OF REACTORS.



REACTOR RESEARCH REACTOR RESEARCH WAS THE DRIVING FORCE BEHIND THE ESTABLISHMENT OF THE NATIONAL REACTOR TESTING

STATION, AS INL WAS FIRST KNOWN. A TOTAL OF 52 REACTORS HAVE BEEN BUILT AT INL, THE LARGEST CONCENTRATION ANYWHERE IN THE WORLD. MISGUIDED REACTOR RESEARCH AND SERIOUS REACTOR ACCIDENTS COST WORKER LIVES AND CAUSED WIDESPREAD SOIL CONTAMINATION. NOW ONLY ONE RESEARCH REACTOR REGULARLY OPERATES AT INL.

ENVIRONMENTAL CLEANUP – THE SITE'S MOST IMPORTANT WORK

SO FAR, MORE THAN \$9 BILLION HAS BEEN SPENT CLEANING UP THE CONTAMINATION FROM DECADES OF NUCLEAR PRODUCTION, RESEARCH, AND WASTE DISPOSAL AT INL. THE CLEANUP ENDEAVOR MAY TAKE UNTIL 2050 AND COST TAXPAYERS A TOTAL OF \$22 BILLION. DESPITE THIS ENORMOUS EFFORT, MUCH OF THE CONTAMINATION HAS NOT AND CANNOT BE REMOVED. IT IS MERELY CONTAINED IN WAYS THE DEPARTMENT OF ENERGY HOPES WILL BETTER PROTECT THE PEOPLE OF IDAHO. NO MATTER HOW SUCCESSFUL THESE EFFORTS



ARE, NUCLEAR CONTAMINATION WILL REMAIN IN OUR LAND AND WATER UNTIL THE END OF TIME.

THE SNAKE RIVER ALLIANCE HAS BEEN A DRIVING FORCE IN THE EFFORT TO CLEAN UP THE WASTE AT INL. THE ORGANIZATION CONTINUES TO KEEP TABS ON THE ENVIRONMENTAL RISKS AT THE SITE AND TO SPREAD AWARENESS AMONG IDAHOANS ABOUT THE LONG-TERM THREAT POSED BY



NUCLEAR WASTE. IN OCTOBER 2014, THE ALLIANCE INVITED VISUAL ARTISTS TO JOIN US ON A TOUR TO WITNESS THE CLEANUP EFFORTS OF SOME OF THE MORE CONTAMINATED PLACES AT INL. THE ARTISTS CAME FROM ACROSS SOUTHERN IDAHO. SOME WERE FAIRLY FAMILIAR WITH THE US NUCLEAR WEAPONS COMPLEX -THE MOTHER OF ONE WORKED AT THE ROCKY FLATS PLUTONIUM FACTORY, THE FATHER OF

ANOTHER WORKED AT INL. FOR OTHERS, THE TOUR WAS THEIR INTRODUCTION TO AN ALMOST ALIEN PLACE VERY NEAR HOME. NONE OF THE ARTISTS LEFT UNTOUCHED.

HOLDING WHAT CAN'T BE HELD COLLECTS THEIR WORK PROBING THE BEAUTY AND THE PERIL OF WHAT THEY SAW – AND HELPS THE REST OF US SEE IT, TOO.