Chapter Twenty-One

By The End of this Decade

[There is] the likelihood of the AEC almost surreptitiously permitting Idaho's NRTS burial ground to evolve into one of the nation's large de facto *burial grounds...*

–Cecil Andrus–

Cecil D. Andrus, elected governor of Idaho in 1970, had a nuclear vision for the development of southeast Idaho. The growing season of this high-elevation part of the state might be extended by irradiating seeds to cause their early germination. Then a nuclear reactor somewhere in the region could lend its heat to irrigation water for the seeds, further extending the growing season. The agricultural base of the region could diversify, no longer limited to potatoes and a short list of other crops. The reactor's abundant electricity would short-circuit any further debate about damming Idaho rivers for more hydroelectric power, an issue growing ever more controversial. The reactor also would complement the research and development activity at the NRTS, further diversifying the economy.[1]

There was more. Nuclear reactors might power an electrolytic process making hydrogen fuel from water. Hydrogen was non-toxic and upon combustion produced only water as waste. Hydrogen-powered aircraft could carry Idaho agricultural abundance to Asia. The whole scheme invited new industries, expanded the economic base, and resolved potential energy shortages.[2]

The vision required research. Did irradiation really cause seeds to germinate early? Would there be any undesirable side effects to using reactor cooling water for irrigation? Where might nuclear power plants best be located?

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Governor Cecil D. Andrus

How long would it take to develop economic hydrogen fuel? Andrus posed these questions to professors at the University of Idaho (U of I). Soon study proposals were under way, with titles such as "A Conceptual Study of a Nuclear Energy Park for the State of Idaho," and "Agrocargo Hydrogen Study." Perhaps the NRTS could become the center for research applying atomic age energy to agriculture not only in the United States but the rest of the world as well.[3]

The governor's enthusiasm for a nuclear-based future in southeast Idaho encouraged the INEC board and helped it focus its research grants. Andrus's staff researched additional questions, such as whether the Environmental Protection Agency (EPA) had established minimum standards on plutonium in the soil.[4]

Bill Ginkel cooperated. By July 1, 1973, U of I professors were ready to start an experiment just outside the perimeter fence of the Chem Plant. They would use thermally warm water from the plant's operations to irrigate certain forest trees and ornamental plants to test how far the growing season could be extended.[5]

Researchers from University of Idaho examine young trees grown using thermally warm Chem Plant water.

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He and Andrus also arranged the closer relationship that Samuelson's Task Force had recommended between their two offices. From then on, the two offices defended each other from surprises, sent advance copies of press releases, and cultivated mutual understanding. The agenda of Idaho Falls business leaders to preserve the public image of the NRTS was now also the governor's agenda.

Andrus had a plan to bulwark shaky public confidence in the NRTS. He asked Dixy Lee Ray, the Chair of the AEC after September 1972, to finance an independent surveillance system so that the State of Idaho could monitor the NRTS for any radioactive contamination emanating from the Site. The State could cross-match its data with the AEC's regular environmental monitoring reports. She thought it was a good idea, but felt that Congress was unlikely to appropriate the funds.[6]

Then Andrus's early nuclear vision began to fade. Events in 1973 and 1974 beyond Idaho helped deflect his energy from nuclear economics to nuclear politics. First, Andrus—and the rest of the world—learned that a Hanford waste storage tank containing highly radioactive waste was leaking. This wasn't the first tank to leak—Hanford tanks had been leaking since 1958—but this leak had gone unnoticed for several weeks. What kind of stewardship was that? Could it happen at the NRTS? The Idaho public wasn't sure.

Next, Idaho's radiation control officer, Michael Christie, found an article in the *Washington Post* reporting that the AEC was considering the NRTS, along with Hanford and Nevada, as a "dump for A-wastes." He had sat on Samuelson's Task Force, and this news hinted that the AEC might reverse previous assurances that, because of its location over the Snake River Plain Aquifer, Idaho would not become a waste repository. Christie told Andrus, "It is imperative that this type of consideration by the AEC be stopped." It was news that Andrus felt should have come from Ginkel but hadn't.[7]

Andrus, together with Senator Frank Church, wrote Commissioner Dixy Lee Ray that they had understood that Idaho was not to be used as a repository for wastes. They wanted her assurance "in writing" that except for fuels to be reprocessed and calcined, the NRTS would not receive wastes from any place that hadn't previously sent wastes. She must state, they said, that the NRTS was not being considered as an interim or permanent storage site for long-lived wastes in any form. Finally, she must tell them that the AEC was using "all efforts" to develop a national waste repository so that long-lived radioactive wastes currently in Idaho could begin to leave the NRTS by "the end of this decade."[8]

Her reply was disappointing. She gave no satisfaction on the first point. The AEC had to make the best use of all its facilities. Any waste going to Idaho would be handled safely. Previous AEC orders that the NRTS exhume and repackage plutonium-contaminated wastes would continue. Nor did she make any promise on the second point. She left it open that Idaho might be considered for interim—but not long-term—storage of long-lived nuclear

INEEL Cultural Resources

R. Glenn Bradley

waste. On the last item, however, she was definite. The schedule for Idaho's plutonium-contaminated waste "recognizes our commitment to be ready to start moving this waste from that site by the end of this decade."[9]

Bill Ginkel retired as manager of the NRTS in September 1973. R. Glenn Bradley took his place. Andrus's first official encounter with him was far different than his first with Ginkel. Ginkel had made the first move, facilitating the clearance needed for Andrus to access all NRTS facilities. Now Andrus put Bradley on notice that his office was to stay in "direct contact with my staff" concerning any unusual increases in the waste entering Idaho for interim storage. He told Bradley that many Idahoans feared the AEC would "make Idaho the nation's *de facto* repository for atomic wastes of all varieties." The

two grew to understand each other's political constituencies—Andrus had the Idaho electorate and Bradley had AEC Headquarters—and worked out amiable protocols.[10]

Meanwhile, publications with a national readership—*Smithsonian, Readers Digest*, and *US News and World Report*—were publishing articles with titles such as "Rising Dangers of Atomic Wastes" and "Nuclear Terrorism: A Threat to the Future?" Some scientists imagined disaster scenarios involving terrorists, the theft of plutonium, and the making of bombs. Many journalists no longer differentiated between waste and spent fuel. It was all waste, and wherever it went was a "dump."[11]

Andrus fought hard to distance the NRTS from this kind of background noise. He started by trying to distance the NRTS from Hanford's problems, which Dixy Lee Ray had characterized as "not only regrettable, but disgraceful." Andrus decided to lead a press tour of the RWMC, the Chem Plant, and their associated laboratories in December 1973. Bradley collaborated. Both hoped the tour would "ameliorate suspicion within the ranks of the uninformed media concerning the treatment of wastes at the NRTS." They promised reporters that the trip would not be an IDO "sales job." All questions would be answered. Andrus readied himself to identify the Chem Plant's calcining program as a key point of difference between Hanford and the NRTS. Here was commendable evidence that the NRTS employed "better techniques than Hanford." Reporters would also see the areas where boxes and barrels had been buried and lost their integrity, and where "at the most, plutonium has migrated only 6" into the ground underneath."[12]

The press tour went well, and the major Idaho papers featured the story within the next few days. With the press informed and the AEC promising that the NRTS would not evolve into a permanent waste depository, Andrus hoped the issue had been settled.

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Governor Andrus at RWMC.

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The December 1973 press tour took the governor (foreground) and reporters to the Chem Plant.

Then Bradley told him that TRU waste from the Argonne Laboratory in Illinois was headed for Idaho. Andrus told Bradley he suspected the AEC capable of letting the NRTS gradually evolve into a large burial ground by sending one small shipment of waste after another and calling it "interim." In the eyes of the press particularly, this shipment was going to look like another step in the wrong direction.[13]

Bradley reminded him that the shipment was consistent with Dixy Lee Ray's earlier letter and did not contradict any of the assurances she had made. It was, on the other hand, quite possible that the NRTS might qualify as the best site for an interim storage facility that would reprocess and repackage not only the TRU waste already at the NRTS, but also from other sources. After all, in dealing with the waste already present, the NRTS was acquiring a unique expertise in that field. He expected research and development funding towards that end to bring $1.1 million into Idaho in FY 1975.[14]

But an "interim" storage plan that might last thirty to fifty years looked too much like "*de facto* permanent" to Andrus. Despite the view held by Andrus's office, in southeast Idaho, and among others that the NRTS was practicing the best safety methods in handling all of its waste, and that neither public health nor the Snake River Plain Aquifer was in jeopardy, the State of Idaho embarked on a mission that would dominate its relationship with the NRTS for the rest of the century: to make the AEC remove buried Rocky Flats waste from Idaho.[15]

The mission effectively dissolved Andrus's thoughts of a nuclear-based economic renaissance in southeast Idaho, although he continued to support new initiatives for the NRTS. It interfered with the boost machine campaigns for expansion of the NRTS and lent an "us against the world" patina to the feelings of east Idaho residents. The high public profile of the issue eventually gave the NRTS an image, at least in more distant parts of the state, as a place of great danger and risk. Grass-roots political movements found a target for environmental and anti-proliferation protests.

The first skirmish in the campaign to remove waste began with an AEC proposal to build an above-ground vault for the storage of spent fuel from commercial power plants. The candidate sites were Hanford, Nevada, and Idaho. The AEC released a draft EIS (environmental impact statement), numbered WASH-1539 for its origin at AEC Headquarters, in September 1974 and solicited comments for a hearing in November.

Andrus swiftly named a Blue Ribbon Study Commission, raising an awareness of the issue all over Idaho, and charged it with reviewing the draft and making recommendations. The Commission absorbed public attention instead of Andrus, who was running for re-election as governor. The president of Idaho State University, William E. Davis, was the chairman. Other members included Cyril Slansky from the Site's Chem Plant, Al Wilson of INEC, Kent Just of the Idaho Falls Chamber of Commerce, and representatives of orga-

nized labor, the East Idaho Nuclear Industry Council (EINIC), the Idaho Farm Bureau, a newspaper editor from Burley, executives from Idaho Power Company and Boise Cascade, and others. Mike Christie, the state's radiation expert, was an *ad hoc* member.[16]

Frank K. Pittman, head of AEC Headquarters' Division of Waste Management and Transportation, met with the Commission during its October meeting to discuss the proposal. But it was the removal of existing waste that was on the minds of the Commission, and Pittman discussed it freely:

Pittman: ...it is logical to store transuranic waste here because of the technical know-how.

Wilson: As far as Idaho, we have been given the feeling that the Governor and Senator Church feel that transuranic waste presently stored in Idaho will start to be moved by the end of the decade.

Pittman: [An AEC] letter to Senator Church indicated that material buried in Idaho would start to be moved out—but it is not feasible. Is your worry about material buried prior to the present material? If we dig up old material, an environmental impact study will have to be made to see if it could be taken out safely.

Wilson: The Governor's and Senator Church's concern is based on the location of our aquifer. The concern certainly includes people other than Idaho Falls and Arco.[17]

The Commission drafted and adopted an interim report and decided to put it before the public in a series of six public hearings around the state. Various interest groups began to take positions on both sides regarding the storage vault proposal. The unions were for it, environmentalists were not, potato growers and water users opposed it, the Idaho Falls City Council favored it.[18]

In its final report, the Commission's first comment was to affirm its belief that present waste management practices at the Site were ostensibly safe and responsible; they posed no threat to the environment. After that, the recommendations were of a sufficiently innocuous nature that a majority could agree. The Commission declined to endorse the expansion of the NRTS for storing commercial spent fuel because the draft EIS was "inadequate." It suggested that commercial spent fuel

In 1975, the Site was designated as a National Environmental Research Park (NERP). All lands within the Site boundaries are a protected outdoor laboratory where scientists from the Department of Energy, other federal and state agencies, universities and private research foundations conduct ecological studies. The Idaho NERP, covering some 570,000 acres, is the largest undisturbed area of sagebrush vegetation in the Intermountain West. The NERP has a large number of paleontological, historic, and prehistoric archaeological sites. It also has over 400 species of plants and a wide variety of animal life. Common reptiles, fish, raptors, and over 40 mammal species, including elk, deer, moose and, most noticeably, pronghorn antelope, can be found here.

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should remain where it was until it could go directly to a permanent repository or to an interim site closer to a final repository. The Commission then embraced Governor Andrus's mission and asked the AEC to give its "firm commitment" and a schedule for removing buried TRU waste from the NRTS. It requested that the AEC finance an independent environmental monitoring capability for Idaho. Finally, almost as an afterthought, the Commission said it favored "a strong nuclear program" in Idaho as a matter of policy, provided it maintained a high level of environmental quality.[19]

At the hearing on November 12, 1974, the constituent member organizations of the Blue Ribbon Commission came out squarely for or against the proposal. Andrus himself endorsed the findings of the Blue Ribbon Commission. He restated the AEC end-of-decade commitment and demanded the AEC set a schedule. Kent Just, speaking for the Idaho Falls Chamber of Commerce, said he did not fully understand why waste management practices had changed from burial to above-ground storage. "I am not certain if it was solely through public pressure or in conjunction with new techniques," said Just. "We are not absolutely sure the burial was a mistake..." If Just expected to receive clarification on this point from either the IDO or the AEC, he apparently didn't receive any.[20]

After the hearing, Andrus conferred with Glenn Bradley. He assured Bradley that his testimony had not precluded receipt of Rocky Flats waste for interim storage. His position was still consistent with the view that the NRTS not receive TRU waste from new sources. Nor was he critical of current waste practices. But, "you and AEC-DC should recognize the wisdom of removing TRU waste at the end of this decade." And if you don't intend to, he wrote, "notify me in writing as soon as possible."[21]

The rising tide of public doubt compromised the whole-hearted support of Senator James McClure for the WASH-1539 proposal, eroding his power to boost the project. Then serving his second term, he demanded publicly that the AEC investigate reports that "huge quantities" of highly radioactive wastes had been buried in cardboard cartons. "If there is even a 'minimal danger' of contamination of the Snake River Aquifer," he said, "then that is more than the people of Idaho should be expected to live with." A subsequent *Post-Register* editorial accused him of taking "potshots" threatening Idaho's chances of bringing in a project worth $3 billion in the next twenty-five years. Later, McClure mended his own bridge to Idaho Falls and endorsed the WASH-1539 proposal—but only if all the waste was above ground, constantly monitored, dry, and interim. And, he added, the material buried in the early years should be removed.[22]

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RWMC activities in 1997 included waste storage, waste evaluation, environmental monitoring, waste repackaging, and waste management research and development.

Kent Just thought that Andrus perhaps had used the Blue Ribbon Commission to deflect pressure from himself during the election campaign. He deeply regretted that Andrus's position had no technical basis. Equally, he was dismayed that the IDO had chosen to emphasize the dollar value of the project in Idaho instead of its technical or scientific merits.[23]

In the next few years, Andrus overlooked no opportunity to remind the IDO and its Washington counterparts that they had committed to start removing radioactive wastes from Idaho by the end of the 1970s. His staff scrutinized every AEC and IDO message, press release, and report for evidence of an agency careless of its commitments.[24]

In the end, the AEC did not go forward with the WASH-1539 proposal, for reasons other than the events in Idaho. Still, the IDO took several steps to redeem itself in the eyes of a doubting Idaho public. It held an open house and invited visitors to examine the waste retrieval facility. Among its usual annual output of public relations pamphlets and brochures, the IDO produced one specifically about the RWMC for the first time. It reached out to groups such as the League of Women Voters, which had opposed any expansion of waste management facilities. Andrus hinted to Bradley that he should venture onto the turf of the potato growers and other NRTS opponents. It was the same sort of work that IDO managers had done ever since 1949 when Bill Johnston began with the Kiwanis and Rotary club circuit, but Andrus thought the relevant circuit had grown far larger; he worried that Bradley didn't venture far enough.[25]

The RWMC pamphlet told the public that "a number of years will be necessary to retrieve, treat, and repackage these wastes." The idea of digging up the old Burial Ground had become a well-articulated IDO practice and policy.

The evolution of this policy seemed laced with irony. No investigations had said that NRTS waste practices had posed any risk to the Snake River Plain Aquifer. The IDO had not acknowledged the old practices as a miscalculation of risks, nor had it qualified or quantified the nature of future risks. Governors' committees and IDO citizen advisory committees since the early 1950s had not raised doubts about the safety of Site practices. Kent Just had hinted that the new AEC/IDO policy was a capitulation to public sentiment. If so, it was a tribute to Andrus's effectiveness. The tasks of retrieving, processing, and moving TRU waste continued to be goals of the AEC, the IDO, and the State of Idaho for the rest of the century—and beyond.[26]