Chapter Twenty

A Question of Mission

Idaho has established beyond question its attitude and posture toward the atomic energy industry.

–Idaho Department of Commerce–

The White House staff had wired up the sound system. A technician from one of the national radio stations tampered with it and accidentally cut the signal from the microphone to the loudspeakers. The President of the United States, Lyndon B. Johnson, had just begun to address a huge audience, and no one could hear him. Bill Ginkel, sitting on the platform with other dignitaries and acting as the master of ceremonies, saw the stricken faces of his staff as they looked to him to do something. He fervently wished he could, as the president's displeasure was quite apparent.[1]

The platform was adjacent to the Technical Services Building at Central, facing Lincoln Boulevard and a crowd of more than 12,000 people. It was August 26, 1966. Less than twenty years after the invention of the NRTS, one of its giant achievements was on this day being designated as a Registered National Historic Landmark. EBR-I had been decommissioned only two years previously, and now it was in the national pantheon along with Valley Forge, Hoover Dam, and the site in Chicago where the world's first self-sustained nuclear reaction had taken place. The matter of the speaker wire, the only flaw in the highly orchestrated event, was soon corrected.[2]

NRTS supporters had grasped the visit as a superior opportunity to show off the NRTS. The arrangements committee extended well beyond the IDO. The Eastern Idaho Chamber of Commerce and the bank presidents from the surrounding towns lent their resources to the elaborate occasion. Volunteers of the Eastern Idaho Labor and Trades Council built the speaker's stand. The members of the American Nuclear Society and the top administrative tier of the IDO had discreetly suggested that the president use the occasion to make a major policy address on nuclear energy. To their disappointment, Johnson was not inclined. He did, however, affirm his faith in the potential of nuclear energy for the future: "What happened here merely raised the curtain on a promising drama in our long journey to a better life."[3]

Argonne National Laboratory-East 1534

President Lyndon Johnson and Dr. Glenn Seaborg attend the designation of EBR-I as a National Historic Landmark.

Still, he was the first president to visit the NRTS, and honoring the EBR-I was a worthy reason. AEC Chairman Glenn Seaborg dedicated the plaque at EBR-I, and on dignitary platform were Lady Bird Johnson, four AEC commissioners, Admiral Rickover, Governor Smylie, and congressional representatives as well.[4]

Behind the public facade, other agendas were at work. Ginkel had a chance to discuss the AEC budget with the president, and the IDO had a chance to give the AEC commissioners a very good impression of the NRTS. Milton Shaw's staff held a round of business meetings and could see how far the NRTS had pro-

President Johnson affixes landmark plaque inside EBR-I.

Argonne National Laboratory-West 1519

gressed on Shaw's quality initiative—perhaps more than other AEC labs. Later, the AEC awarded Ginkel a Distinguished Service Award, and Ginkel credited the recognition partly to the exposure brought by the president's visit. In the circle of towns surrounding the NRTS, the event affirmed the value of the NRTS mission to the nation and placed it under a warm and welcome spotlight.[5]

The potential demise of the MTR was an entirely different proposition than the end of EBR-I. All agreed that the EBR-I had fulfilled its useful life, but there was no such consensus regarding the MTR. Some of the HPs thought the machine was "decrepit," too aged and battered to protect its operators from radiation hazards. Certainly, the large test loops of the ETR and ATR attested to its obsolescence in the Nuclear Navy program. But the MTR had beam holes. The ETR and ATR did not. No other reactor west of the Mississippi River had this feature, and if the MTR shut down, it would foreclose a whole class of research potential in Idaho, and indeed anywhere else in the western United States. At least, that was how NRTS supporters saw it.

So the MTR had to be saved. INEC's first salvo was a round of appeals to the AEC to change its mind. Samuelson, ten other western governors, the congressional delegation, and INEC all failed to get the AEC to reconsider. Samuelson offered state funds to help retain the MTR.[6]

Wilfrid E. Johnson, one of the AEC commissioners, came to Idaho Falls and explained the AEC position to the Rotary Club:

We are having extreme difficulty these days in obtaining funding for many of our programs and I can give no assurance or even encouragement at this point in time that we will be able to keep the MTR operating.[7]

INEEL 4383

The view toward the core of the MTR through a beam hole.

The next phase of the campaign saw Rutledge collecting testimonials and ideas from MTR scientists and the region's universities about how the MTR might be reborn. A vision took shape, and in no time, INEC encapsulated it in a brochure: "MTR, Today an Irradiation Facility, Tomorrow...Western Beam Research Reactor, The Hub for Neutron Research in the Western United States." The beam hole feature of the MTR had been underexploited, said the brochure, compared to the in-pile materials testing function of the reactor. Universities and industries of the West might now use the reactor for basic, applied, and developmental research. The tradition of the MTR at the frontier of knowledge could continue to benefit western states.[8]

The entire Idaho nuclear network embraced the Western Beam Research Reactor (WBRR). The governor went on television expressing the state's support. Editorials and news articles explained the idea to the public. NRTS scientists warned that without the MTR, its team of fifty skilled scientists would break up and perhaps be lost to Idaho. INEC saturated the service club circuit with the MTR message. More letters went from the congressional delegation to the AEC administrator, the commissioners, and the White House. In its 1969 session, the Idaho legislature raised its level of appropriations for nuclear-oriented research to $200,000, hoping it would help retain the MTR. The lieutenant governor led a delegation to Washington, D.C., for an audience with the JCAE. Remarks celebrating the MTR and its potential as the WBRR went into the *Congressional Record*.[9]

Behind the scenes, Governor Samuelson asked Bill Ginkel to lay on the mantle, as it were, of the MTR's proposed new *persona*. Change its name from MTR to WBRR, he urged. Make it more open to university users and eliminate security clearances. Establish a users group to evaluate research proposals. Create an office to help coordinate university activities. Provide temporary housing for researchers at the NRTS.[10]

If Ginkel was inclined to follow Samuelson's recommendations, he found no soft spot at AEC Headquarters, which mustered not the slightest enthusiasm. The highly secretive business of the Nuclear Navy occupied the ETR and the ATR, and the MTR could not easily be isolated from the rest of the complex. The no-nonsense, PERT-charting engineers in Washington were trying to streamline, redirect all available resources to the breeder program, and compete for funds. INEC was asking the AEC to subsidize the MTR for a very unrelated mission at a cost approaching $5 million a year.

Obviously, INEC needed big money but couldn't seem to raise it. The Commission succeeded in persuading the AEC to postpone the MTR decommission date to June 1970. But the campaign wore on through 1970 and into 1971, with more of the same results. Rutledge kept the issue at the highest possible profile with an endless stream of letters and appeals. He looked everywhere for investors, nurtured leads, and came up empty every time. Representatives of GE inspected the MTR, but later concluded that the combined capacity of other reactors, public and private, could meet market demand for irradiation. Glenn Seaborg told Utah Senator Wallace Bennett that education was the only justification for preserving the MTR, and other education priorities existed elsewhere.[11]

Idaho State Historical Society 66-132.1

Governor Don Samuelson

The AEC, therefore, turned down a proposal from twenty-five western universities asking the AEC to operate the reactor. The universities offered no funds, although private industries pledged over $400,000 in business to make industrial isotopes. The AEC rejected commercial involvement without the concurrent sponsorship of a public agency such as the National Science Foundation (NSF). So Rutledge followed that path, and the NSF promised to look into it.[12]

Before the NSF made its report, the MTR ran its last experiment. After months of preparation, the team loaded the reactor with plutonium fuel. They named the core "Phoenix" after the legendary bird that had lived five hundred years, burned itself to ashes, and then rose to live again. The reactor demonstrated that plutonium fuel could be controlled safely in a water-moderated reactor. The long-envisioned nuclear fuel cycle, beginning with the creation of fissile material in a breeder reactor, could be closed. Mission accomplished, the AEC shut down the reactor on April 23, 1970.[13]

INEC doggedly trudged on. A few days after the shut-down, Idaho newspapers happened to carry a story from the Idaho Fish and Game Department. Among the 250,000 pheasants shot during the 1969 hunting season, a few had more mercury in their blood than was safe for human consumption. State biologists suspected that the birds had eaten grain contaminated with a fungicide containing mercury. How widespread was the problem? Would the Department have to cancel the pheasant hunt for 1970?

Rutledge saw a perfect chance to demonstrate why the MTR could not be allowed to fade away. The MTR could irradiate pheasant samples. If mercury was present, neutrons would transform it to a radioactive isotope, which could quickly be identified and measured. Once more, he tripped all the wires in INEC's network. A flurry of calls, letters, proposals, and conferences ensued. Dr. Libby got involved. The State Board of Education came up with funds

"to the absolute limit of our fiscal capabilities."[14]

The IDO cooperated. Aerojet, the MTR contractor, brought the reactor critical one more time for forty-eight hours in August 1970. Governor Samuelson went to observe. The scientists loaded the old machine with a thousand samples of pheasant, fish, grasses, mutton, beef, and pork from all around the state. The publicity was good. The results were good. The Fish and Game Department decided the mercury problem had been localized and temporary. The pheasant season opened on schedule that fall.[15]

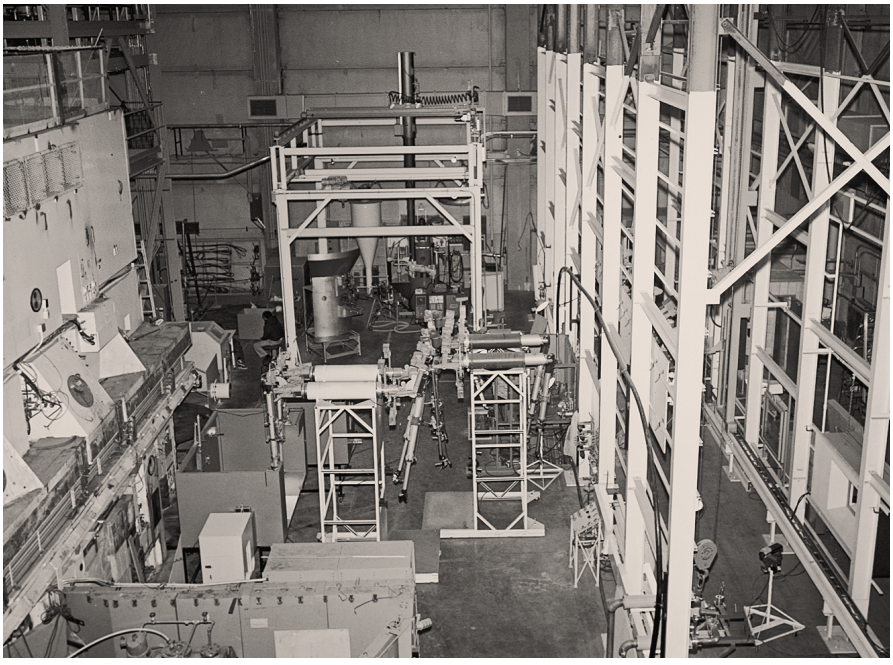
At last, the AEC offered Governor Samuelson a chance to rent the MTR for $1 a year. If Idaho didn't want it, the AEC would establish a minimum acceptable bid and sell the MTR to the highest commercial bidder. The terms were difficult. MTR use had to be restricted to educational, research, and government functions. Idaho had to pay the MTR contractor full costs (which ranged in the multi-millions) and the AEC would contribute nothing.[16]

Dr. Libby urged the governor to take the deal, but Rutledge and the INEC board knew that without commercial business, the state and the universities could not develop an income stream fast enough to make the MTR a going concern. Even maintaining it in a standby condition would quickly drain Idaho resources. The state was hardly wealthy; in 1970, its population base was only about 713,000 people.[17]

The last, faint hope for the MTR dissolved when the NSF said that reactors at "eastern facilities" were sufficient for any likely demand. Nuclear research in environmental matters, crime abatement, cancer, and biology was not expected to exceed their capabilities, so the MTR was surplus even for non-government research.[18]

The fight was over. The MTR team broke up. Dr. Robert Brugger eventually left Idaho to run the nuclear physics program at the University of Missouri, which possessed one of the swimming pool reactors that had inspired the SPERT program. Others remained at the NRTS, but they had to "redirect" themselves to other work.

The failure to keep the MTR alive was not a failure of heart or drive. The effort to save it was a creative foray to retain a research mission that had made the NRTS worthy of the name "national laboratory," even if the Site did not possess the name. Money didn't materialize, partly because demand was no longer growing as it had earlier; existing capacity elsewhere was sufficient. The message from GE had made this clear. National nuclear reactor research was beginning to decline, and the loss of the MTR was an early sign of it. Possibly, there was the political reality that the national power base for basic research was vested at the universities of Chicago, California, Princeton, and others. Funds for a new western university research center would have reduced these universities' slices of the budgetary pie. The NRTS, lacking a strong champion within the AEC, was poorly equipped to compete with the political delegations of Illinois and



INEEL 82-1776

After the MTR was decommissioned, its floor space was available for other uses. This 1982 view shows a mockup of the CPP New Waste Calcining Facility.

California. The NRTS was not a weapons production center, nor was it associated with a major science university. One participant at the time, C. Wayne Bills, reflected later that the NRTS had an image as merely a service outfit for the Navy or Argonne. Its unique pool of brilliant scientists and engineers was easily fended off. "I learned how much energy could be wasted by not knowing the problem," he said of the great "charge" to save the MTR.[19]

New reactor projects had become very scarce at the NRTS. By 1972, most of the reactors that were going to be built at the NRTS had been built or were under construction (a reactor called NRAD went critical at Argonne-West in October 1977, but it was a commercial Triga reactor, not a new reactor type). After PBF and LOFT (and the Triga), the only reactors that would attain first criticality after 1970, there were no more. The NRTS mission to test reactors had been accomplished. In all, the NRTS had been home to fifty two reactors. All but two of them went critical. (See Appendix B.) The NRTS fledglings—the Nuclear Navy and the nuclear power industry—had become giants making their own way in the world. Both of the major commercial reactor concepts, pressurized water and boiling water, had been proven in Idaho. After 1970, the thrust of NRTS nuclear research increasingly was conservative: to enhance proven concepts. The ETR and the ATR were at the service of the Navy; and the safety testing program at LOFT and PBF supported the Nuclear Regulatory Commission and the nuclear power industry.[20]

During the height of the MTR campaign, another plutonium fire ripped through Rocky Flats. The fire occurred on May 11, 1969, and resulted in more damage than from any previous Rocky Flats fire. In June, the *New York Times* ran a story on the fire and mentioned that the debris—ton after ton of concrete blocks, metal shielding material, rubber, piping, coveralls—would go to the NRTS to be buried. A customer of Robert Erkins'trout farm clipped the story and sent it to Erkins, wondering if the plutonium might somehow contaminate the fish. Erkins was alarmed. The pure spring water supplying his business came from the aquifer system underlying the NRTS. He visualized plutonium seeping from the burial trenches into the soil, finding a path through six hundred feet of the fissured rock below, and leaching into the flow-

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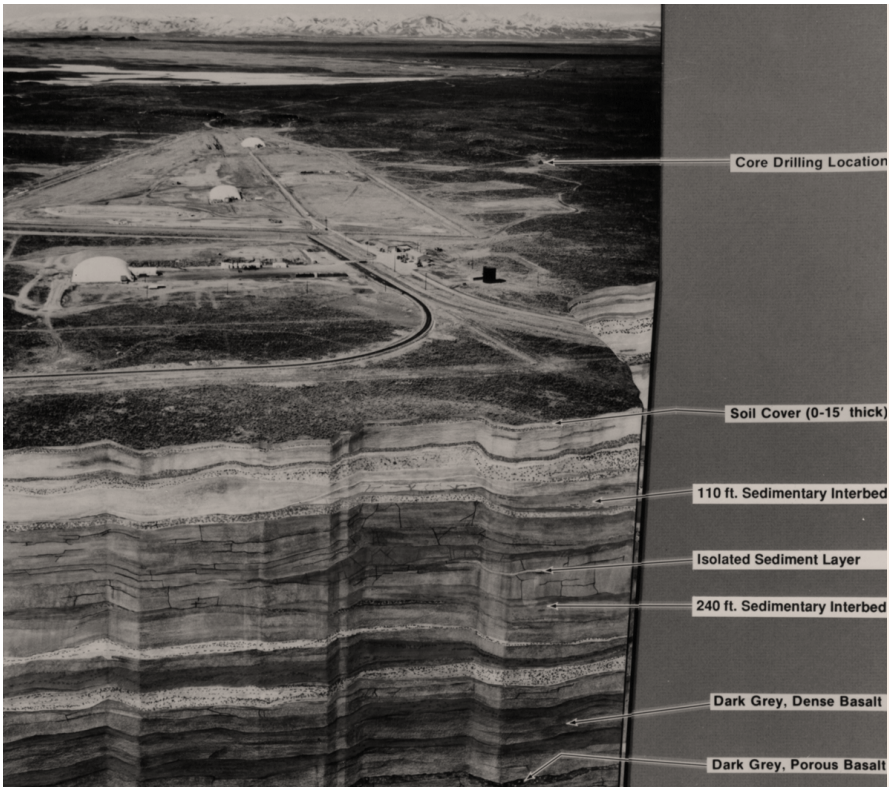
Above. Part of the sea of barrels from Rocky Flats.
Below. An illustration depicts the subsurface beneath the NTRS Burial Ground.



National Oceanic and Atmospheric Administration

ing waters of the aquifer. If plutonium contaminated the aquifer, or if the rest of the world thought that it had, his business could be finished.[21]

He sent off a letter to Governor Samuelson. He questioned Bill Ginkel, who wrote a response intended to reassure:

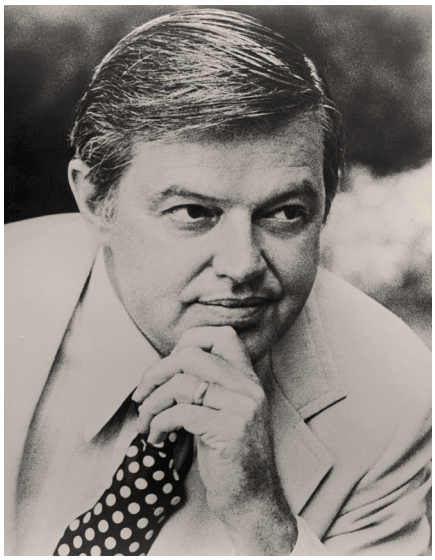
We have zealously guarded the water resources at the NRTS by an extensive environmental research and monitoring program which has extended over two decades. We have never found any evi - dence of movement of the plutonium or other wastes through the soil at any location in the burial ground. Because of the desert conditions, the soil does not contain sufficient moisture to pro - vide transport for this material. Moreover, the plutonium is in an essen - tially insoluble form... Tracer studies have demonstrated that the water under the south-central part of the Site is moving at the rate of 10 to 20 feet per day. At this rate, the water currently under the southern boundary of the Site can be expected to reach the Thousand Springs area on the Snake River after the year 2070.[22]

Ginkel also said that if signs of migration ever were found, the waste was not beyond recovery or countermeasures. He reminded Erkins that plutonium was about thirty times more valuable than gold, and that all reasonable efforts were made to recover it before the waste went to Idaho. In newspapers, Ginkel was quoted as saying, "We have substantial technical experience. There's no real or potential basis for alarm—ever." Erkins was not reassured. He sent letters to newspaper editors all over the state, who obligingly published or quoted from them. The *South Idaho Press* said Idahoans "should be alarmed generally," and quoted Robert Lee, the director of the Idaho Water Resources Board, who said, "If the aquifer became radioactive, we would be wiped out." The editor called for the creation of a "national dump" at some barren place where the waste could never cause harm to anyone and quoted Erkins:

Basic common sense would tell anyone that you do not store your garbage over your water supply regardless of the type of garbage. How then can we con - tinue to permit disposal of radioactive material over the source of one of the world's great spring water systems?[23]

Erkins kindled doubts elsewhere in the agricultural community of south Idaho, most of which relied on the aquifer or the Snake River into which it flowed. Samuelson attempted to get the facts, but found that federal agencies seemed to have differing assessments of NRTS waste burial practices. In addition, his own state employees were issuing contradictory statements, fueling more press coverage.[24]

"This confusion is not leading us anywhere," decided Samuelson. He put a stop to *ad hoc* staff comments to the press and created a State Task Force to "thoroughly examine, through a coordinated approach, any possible atomic pollution to the aquifer and then recommend a course of action." The committee consisted of the director of the health department, the state reclamation engineer, the director of the Water Resources Board, Gene Rutledge, and a representative from the Idaho Reclamation Association. Bill Ginkel and John Horan immediately invited the task force to have a look around.[25]



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Senator Frank Church

The public outcry reached Idaho senator Frank Church. He decided to coordinate resources on a federal level. He asked the USGS, the U.S. Public Health Service, the Federal Water Pollution Control Administration (FWPCA), and the Bureau of Sport Fisheries and Wildlife to conduct a joint study independently of the AEC to assess the long-term implications of NRTS burial practices. His news release said that Church had acted after NRTS officials had "acknowledged publicly" that radioactive wastes from both the NRTS and Rocky Flats were being buried above the aquifer. The practice had been known to the state for years, but this fact did not become part of the public discussion on the issue.[26]

Church discovered that the AEC had in 1966 requested a National Academy of Sciences (NAS) committee to survey radioactive waste research and development at the AEC's four major plants storing such waste. The resulting report pointed out that each facility had different standards and used different definitions for low-, intermediate-, and high-level wastes. The AEC's 1948 decision to let each lab handle waste its own way had become a chicken come home to roost. The NAS authors felt that each site was in a poor geological location. They suggested that the AEC start over and put its waste-generating plants in areas selected for geological suitability. Although the NAS committee had visited neither Hanford nor NRTS before making its report, it challenged the NRTS judgment that hazardous amounts of radioactivity would not reach the aquifer. Later, the committee examined both sites and informed the AEC that neither was creating a hazard. The AEC had not published the report.[27]

INEEL 75-3513

Damaged waste barrels retrieved in the 1970s were sometimes placed in "overpack" barrels.

Senator Church demanded that the AEC release what he called the "suppressed" report. When he obtained a copy, he published it in the *Congressional Record*. Glenn Seaborg, AEC chairman, said the report had gone "beyond its purpose" and delved unbidden into operational issues. This explanation, which could have been interpreted as a polite way of saying its authors were ill-informed, seemed suspect to the public. After all, it appeared to them that the NRTS had "secretly" been burying plutonium-laced waste. Part of the Idaho public began to think that the AEC and the IDO were not to be trusted. These doubts planted the seeds of a new citizen coalition, and it would evolve as a protest network, not a support group.[28]

At their October meeting, Governor Samuelson's task force staff faced a predicament. The staff had no means—no funds or qualified analysts—to make an independent assessment of NRTS waste management practices. The only available information was in the hands of the people who said there was no problem—the AEC and the USGS. If there were a hazard, the staff presumed the AEC would not release any information to substantiate it. Nevertheless, they accepted Ginkel's invitation to visit the Site. They would collect what information they could and let Samuelson know if the problem was serious or not. Gene Rutledge requested that the IDO articulate and make public long-term plans for waste management.[29]

The issue continued to bubble. The State Board of Health, whose members went on the NRTS tour with the Task Force as they looked over the Burial Ground, the SL-1 burial plot, and the injection wells, decided they saw no current dangers, but asked the AEC to stop burying waste in the desert. Dr. Theos J. Thompson, an AEC commissioner visiting Idaho in November to dedicate Argonne's new Zero Power Physics Reactor, asserted that contamination from buried solid wastes would never reach the aquifer. To questions about the practice of injecting low-level radioactive liquids into the aquifer, he said "regardless of how it sounds," these planned releases would not endanger people. He described the tiny amount of radioactivity in the releases in relation to the tremendous diluting power of the aquifer. He had no objection to Idaho monitoring the NRTS, but observed that it would duplicate personnel and equipment already on the job.[30]

On the first day of 1970, President Richard Nixon signed the National Environmental Policy Act (NEPA). NEPA was a triumph of the growing environmental movement. It had been inspired partly by frightening examples of air and water pollution so serious that they threatened public health. Therefore, the national press was interested in discovering further examples. Later in January, *ABC Network News* sent a reporter to Idaho Falls to prepare a story on the aquifer for a weekly program called "First Tuesday."[31]

INEEL 77-2632

Environmental monitoring technician collects soil samples from beneath a storage trench. He holds radiation detector in his right hand.

Radioactivity was in other news. An AEC scientist named Arthur Tamplin from the Lawrence Radiation Laboratory in California went public with his view that the AEC's radiation exposure standards should be tightened by a factor of ten. He represented one of two general views about the hazard of radiation. One opinion was that exposure to radiation was a natural phenomenon, and that a very low annual dose was a normal risk of living. Tamplin held the opposing view, that any amount of radiation, no matter how small, is deleterious to human life.[32]

These concerns about the hazards of radioactivity helped focus a lively public interest on the NRTS. Senator Church's four federal agencies weighed in with their combined report. "We find no problems that have occurred and that none are likely," they said.

Nevertheless, they recommended ways to improve NRTS practices, such as increasing the soil barrier above and below the pits and trenches in the Burial Ground, better control of snow melt, and more study of the basalt and alluvial layers beneath the Burial Ground. In addition to monitoring soil and water to confirm the absence of contamination, monitoring also should positively affirm that radioactivity had not migrated beyond the burial area. It suggested that waste with plutonium and americium (long-lived transuranic elements) should be stored so that it could be removed if necessary.[33]

Governor Samuelson's Task Force wrapped up its own work a few months later. It, too, found "no evidence of any present hazard." Nor was any hazard likely in the future. The AEC had written the Task Force to say that the AEC would start removing the TRU waste in the Burial Ground before the end of the decade, reiterating a statement that Glenn Seaborg had made earlier to Senator Frank Church. With that kind of schedule, the problem obviously would disappear. The Task Force also thought it was time the Idaho governor's office establish a formal liaison with the NRTS and hire qualified experts to maintain a continuing check on NRTS waste management.[34]

AEC Headquarters also had been receiving public complaints from several other parts of the country regarding the waste management practices at some of its other facilities. It created a new division called the Office of Waste Management and Transportation and announced that it had chosen a salt mine in Lyons, Kansas, for an evaluation as an underground repository for Rocky Flats and other radioactive waste. The AEC expected to start shipping wastes to Kansas around 1975. Undoubtedly, this expectation underlay AEC intentions to begin removing buried waste from Idaho. Further, AEC Headquarters began the long-deferred task of developing a set of policies, standards, and criteria that would apply uniformly to waste management practices at all of its laboratories.[35]

In response to the new attention being focused on waste, Ginkel's staff began considering the implications for its own waste management practices. "We want some new thinking on the Burial Ground," was the message to George Wehmann, director of IDO'S Office of Waste Management. Furthermore, the AEC in March of 1970 directed that TRU waste be segregated from other kinds of nuclear waste and also be stored so that it could be retrieved at a later date.[36]

Wehmann looked at various problems. Part of the Burial Ground area had lava rock fairly close to the surface, making it unsuitable for pit and trench burial. He concluded that if this area were covered with asphalt paving, it could be used for above-ground storage, and this plan eventually went into effect as a way of making economical use of Burial Ground space.[37]

On the recommendation of John Horan, the IDO had told Rocky Flats in the fall of 1969 that it could no longer expect to deliver waste for burial during the winter and spring months (due to flood hazards and the reassessment of practices then underway). After the AEC's March 1970 directive, there would be no more subsurface Rocky Flats burials at all. The Rocky Flats barrels and boxes went to asphalt pads built adjacent to the old Burial Ground, where the barrels were stacked on their sides to prevent water from pooling on the tops.[38]

One day, someone noticed water leaking from a few of the barrels. Wehmann recalled:

This was happening despite the assertions of Rocky Flats that they were sending only solids in these barrels. I went to Rocky Flats and we had a don-

INEEL 70-5212

A 1970 view of the Burial Ground shows the Transuranic Storage Area in the foreground, a new destination for Rocky Flats transuranic waste.

nybrook. They said there couldn't be water in the barrels. I watched them fill the barrels with waste encased and sealed in plastic bags and then seal the barrels. Then we looked at the drums [barrels] in the storage yard. We found clear liquid on top of the drums. Well, they weren't tending to details. The barrels were standing up in the rain. They were using sponge gaskets to seal the barrel lids, and these weren't always sealed perfectly. In those cases, the seals acted like a syphon, sucking water into the barrel.[39]

INEEL74-2808

So Rocky Flats changed its ways, discontinued outdoor storage, and repackaged nearly 2,000 barrels. It soon improved the plastic liner inside the barrel, improved the sealant, and substituted a better seal on the barrel itself.

The IDO also had to consider the AEC's decision to retrieve Rocky Flats waste barrels that had been buried between 1954 and 1970. Exhuming what had not been intended for retrieval presented a number of questions. Retrieving stacked-up barrels probably would be easy. But the practice of dumping Rocky Flats barrels from truck beds into the pits, while it had kept costs down and reduced radiation exposure to workers, also dented and damaged the barrels. The soil most intimate with these barrels may have adsorbed flecks of radioactivity. Exposing soil to the drying winds of the desert could produce dust. If it contained plutonium, the dust was a potential health hazard. Then there was the old problem of not being sure what Rocky Flats had actually sent to the Burial Ground. Its industrial garbage and fire debris may have included laboratory solvents like carbon tetrachloride and trichloroethylene or other low-level radioactive items. These needed due respect if they were to be disturbed. Mixed wastes were a complication; workers had to be defended from two kinds of hazards: radioactive materials and hazardous chemicals. Techniques for handling one might be unsuited to handling the other.

Retrieval thus required practical research. Could older barrels be safely retrieved and, if so, at what cost? As usual, the only way to find out was to begin the job, first by removing and examining a few barrels of several different vintages, and then by proceeding with a practical plan. By 1978, over 20,000 barrels had been removed from below the ground and stacked on asphalt pads. Not unexpectedly, the barrels that had been damaged during the days of random dumping were not as easily dealt with as the others. To protect workers from wind and weather during retrieval operations, the work area was sheltered within a temporary air-supported "building" that looked from the outside like a very large pillow. Made of fabric, it was anchored to the ground and kept inflated by a constant flow of air pumped into the build-

INEEL77-1262

Above. Air-supported building inflates after being moved to new work location. Left. Barrel retrieval takes place in pits 11 and 12 inside air-supported building in 1977.

INEEL 76-1380

INEEL 76-2954

Above. An aerial view of the RWMC in 1976, facing west. Three air support buildings indicate locations of work areas. Below. The "Three Cell Personnel Entry" was used to control contamination levels on workers' clothing as they exited work areas during the Early Waste Retrieval Project of 1976.

ing. When a new work area opened, the building was moved to the new spot. Most of the 20,000 barrels had been buried relatively recently or in the very early days of by-hand stacking.[40]

The IDO prepared itself for the day when the AEC designated some other location outside of Idaho as the final resting place for the Rocky Flats barrels and crates. New standards for the barrels indicated they should have a life of twenty years. Monitoring of the environment increased around the area; enhanced soil compaction methods went into use; and new techniques made more efficient use of limited space.[40]

Obviously, the name Burial Ground no longer was appropriate, even though the low-level radioactive waste (non-transuranic) from the NRTS would continue to be buried there. Wehmann had it changed in 1970 to Radioactive Waste Management Complex. The NRTS had a new mission: waste retrieval.