

NMERDI, Edward Teller, Men and Boys

By the time the state legislature created the New Mexico Energy Research and Development Institute (NMERDI) I was acquainted with most of the men at the state's institutions of higher learning who were principal investigators of the projects funded by the energy research program; a number of those men during the war had been Manhattan Project scientists at Los Alamos. All those former Los Alamos scientists to whom I showed the "History" between May and August of 1980 were intrigued by the reference that document makes to Port Chicago and fascinated that a document had ever gotten out of Los Alamos that provides so much detail about the design and effects of the explosion of an atomic bomb, but none of them knew the name Port Chicago. They agreed, however, that Edward Teller, the "Father of the H-bomb," would certainly be able to identify Port Chicago and say what that reference in the document signified.

A few days study of that document had persuaded me that the "History" had been written preceding the 16 July 1945 atomic bomb test at Trinity site in New Mexico. If the "History" had been composed after that date, the document would have specified the Trinity fireball as "typical" of an atomic bomb detonation rather than the "Port Chicago" fireball; Paul Masters had told me he had removed the document from Los Alamos during the autumn of 1944. Port Chicago was a piece of my experience in Berkeley during the mid-1960s that I had forgotten—repressed, perhaps; it had been a difficult time. I had no recollection of my visits there 15 years earlier. Not until September 1980 did I recognize that Port Chicago was a place I had been.

I had studied undergraduate physics with Teller at Berkeley and had gotten to know him somewhat personally because admission to the

class required prospective students to write a short essay on some aspect of relativity theory and adequately defend that essay in conversation with him; students in the class individually met regularly with him during the semester.

Professor Teller approved my essay and defense, admitted me to the class, and later introduced me to quantum theory, Max Planck, Werner Heisenberg and John von Neumann.

Port Chicago was nowhere mentioned in the indexes of the general histories of the Manhattan Project available in the New Mexico State Library; those scientists of my acquaintance who had been at Los Alamos during the war had never heard of Port Chicago, but evidently, whatever Port Chicago was, it had been fundamental to Los Alamos in the preparation of a detailed mathematical model that described the detonation of an atomic bomb. Although my acquaintances who suggested I speak with Ed Teller about the document did not foresee that meeting could be a problem, I did.

By the beginning of August 1980 I had asked those men if it were possible that an atomic bomb had been tested by Los Alamos prior to Trinity and if “Port Chicago” could be a code word that designated that test. If such a thing had happened, they had not known of it; but they were mindful to say that Los Alamos during the war had been deliberately organized and compartmentalized for security purposes so that very few people knew much more than the details of the specific areas of work to which they were assigned. As much as my acquaintances knew from personal experience, and later reading, the first atomic bomb test had been conducted at Trinity site, 16 July 1945.

That test at Trinity, they said, had simultaneously proved the theory of large scale nuclear fission explosions and proved the particular technology and design of the bomb detonated at Trinity, which was detonated in combat a few weeks later at Nagasaki, Japan, 9 August 1945. That the feasibility of large scale nuclear fission explosions had not been first proven experimentally on a smaller scale than the Trinity test was manifestly contrary to the usual method of scientific research and development. The conventional scientific method would dictate an

experimental small bang as a proof of theory before an experimental big bang was attempted.

The arguments advanced by those former Los Alamos scientists associated with the state's energy research programs to explain that deviation from customary research and development practice were that bench-scale experiments conducted by the Project had so adequately proven the theory of large-scale nuclear explosions that a small-scale proof of the theory was unnecessary. That reasoning seemed unreasonable to me. For a project as important to the immediate national defense during the war as the atomic bomb was, and which was expected to determine the postwar maintenance of world order—and that was as expensive as the atomic bomb development program was—it seemed to me inconceivable that a small-scale proof of the theory of nuclear weapons would not have been made, if that test had been possible. If that small-scale experimental detonation had been possible, had it been done at Port Chicago?

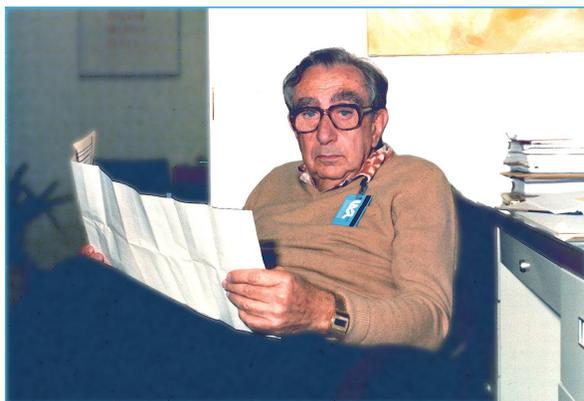
Teller, I expected, would be reluctant to talk about the document I had and Port Chicago, if the “History” did refer to an unannounced bomb test and Port Chicago had been that test. If I proposed a discussion of that subject with him I expected he would decline to meet for that purpose, so I tricked him. Teller, I learned, spent most of his time at Lawrence Livermore Laboratory, east of San Francisco in the city of Livermore, but he also spent a good part of his time at Los Alamos Scientific Laboratory (LASL) where he had an office and where he worked and met with his Los Alamos-based colleagues. Two years later, Los Alamos Scientific Laboratory was renamed Los Alamos National Laboratory (LANL).

Meeting with Edward Teller at Los Alamos.

Early in August 1980 I called Teller's secretary at Los Alamos and identified myself, honestly, as the editor of the state's energy newsletter, *Energy Source*, and said I wanted to interview Dr. Teller at Los Alamos for an article I would write for *Energy Source* that would consider Dr. Teller's views on the energy crisis. I said I would have a camera with me to take a picture of Dr. Teller to illustrate the article.

Within a few days the early afternoon of 27 August was set for that meeting. I arrived with the original and a copy of the “History,” a Nikon motor-drive camera with a 50 mm lens, a role of color negative film loaded in the camera, a powerful exposure-attenuated photographic strobe and battery pack.

We talked awhile about Berkeley in the mid-60s and I said that before we commenced the interview I would take the photos I wanted. He agreed. To take his mind off the photography I suggested he read



Dr. Edward Teller (1908-2003) reading “History of 10,000 ton gadget,” Los Alamos Scientific Laboratory, 27 August 1980.

something I had brought with me and I handed him the original “History of 10,000 ton gadget.” He protested in his usual gruff manner that he didn’t need anything to take his mind off the photography, to which I responded with like gruffness that he should read it anyway and then talk to me about the document. Ed glanced at the document and immediately became engrossed with what it obviously offered in history from Manhattan Project days.

I started flashing the big strobe and exposing quick photos with the motor driven Nikon while he read; then I moved my position so that the upper right corner of the document was visible in the frame and asked him to turn his head and look directly into the camera lens, which he did. The document, so immediately interesting as it was to him, had indeed distracted his attention from the photography. He may even have been unaware I was taking pictures and he seemed oblivious of the flash that was lightening the room. When I had a sufficient number of photos exposed I put the camera down and asked him specifically what the bottom line reference to Port Chicago signified. He studied the bottom line a moment and said it was Port Arthur. I said, “No, Ed. It’s not Port Arthur. It’s Port Chicago.”

The Texas City disaster.

Port Arthur is on the Texas coast of the Gulf of Mexico, 65 miles east of the state's principal maritime port at Texas City on the Galveston Bay shipping channel; the Texas City deepwater port facilities serve Houston and industrial southeast Texas. On 16 April 1947 the bulk carrier S.S. *Grand Camp* exploded at approximately 9:15 A.M. while moored to Pier "O" at Texas City. Subsequently the local piers, adjacent warehouses, nearby industrial plants, tank farms, and two other ocean going vessels became involved; one of those two ships was the cargo vessel S.S. *High Flyer* which also exploded. The number of persons known to have been killed in the Texas City disaster was 433 and 128 persons were listed as missing, for a total of 561 persons killed or presumed to have been killed. The number of persons injured in the explosions ranged in the thousands; property loss totaled \$67 million. S.S. *Grand Camp* very frequently is misnamed S.S. *Grandcamp* in the literature.

Grand Camp, a French-owned vessel, was the former American Liberty ship S.S. *Benjamin R. Curtis* built at Los Angeles, California, in 1942; *Grand Camp* was the same class vessel as the Liberty ship which had exploded 17 July 1944 at the Port Chicago Naval Magazine, the S.S. *E.A. Bryan*: length 422.8 feet, breadth 57 feet, depth 34.8 feet, gross tons 7,176, net tons 4,380, 5 cargo hatches. The cargo aboard the *Grand Camp* when it came to dock at Texas City consisted of 59,000 bales of sisal binder twine; 2,501 bales of leaf tobacco; 9,335 bags of shelled peanuts, 380 bales of compressed cotton, 16 cases of small arms ammunition, and inconsequential quantities of other, common commodities. At Texas City longshoremen began loading pallets of 100-pound multi-ply paper bags of ammonium nitrate into the *Grand Camp* at 1 P.M. on 11 April 1947. By 8:20 the morning of 16 April, 882 tons of ammonium nitrate were loaded in the ship's No. 4 lower cargo hold and 1,459 tons in No. 2 lower hold. The ship's ammonium nitrate cargo had been produced by the U.S. Government during World War II to be used in the manufacture of military explosives and was destined to be recycled as fertilizer in France.

Described as “fertilizer compound,” the ammonium nitrate loaded in the *Grand Camp* originated at three U.S. Army ordnance plants, one in Iowa and two in Nebraska. The United States Coast Guard Court of Investigation convened in the days following the explosion to inquire into and investigate the fire that started aboard the *Grand Camp* and the subsequent ship explosions found that the shipping officers of the ordnance plants had violated applicable Interstate Commerce Commission regulations governing the transportation of explosives and other dangerous articles by describing the highly explosive ammonium nitrate shipment as “fertilizer compound”. The Record of Proceedings of the Court was issued 24 September 1947 and found that the fire on board the S.S. *Grand Camp* which preceded the explosion was of undetermined origin.

Because the explosive and oxidizing characteristics of the shipment were not identified, the ship’s operator was not properly advised that the shipment was explosive. No specific instructions were issued to longshoremen or the ship’s crew with respect to smoking on the *Grand Camp* during loading operations, nor were the longshoremen issued specific instructions on the storage of ammonium nitrate. Bags of ammonium nitrate which were broken or torn during loading into the *Grand Camp* were not refilled or repaired but were stowed in the holds in violation of Coast Guard regulations governing the handling and stowage of that material. The Court of Investigation found that “hardly without exception all persons concerned with the handling, stowage and transportation of the cargo displayed a lack of knowledge of the provisions of regulations governing the safety of the operations either by land or water.”

Smoke was noticed emerging from the No. 4 hatch of the *Grand Camp* at 8:15 on the morning of 16 April, but no flames were visible. Four portable fire extinguishers were lowered into the hold and expended without effect on the smoking cargo. Ten minutes later flames appeared and an alarm was sounded on the ship’s whistle. A fire hose was lowered into the hold, but the ship’s captain ordered that no water should be played on the cargo. All personnel were ordered out of the hold, the hatch was battened down, the hold’s ventilators were closed, and steam was introduced into the hold by the ship’s steam smothering

system, which had the effect only to raise the temperature of the explosive cargo. The 41 men then present on the ship left the vessel and assembled at the outer end of Pier “O”. Five of the assembled men left the pier before the explosion, but of the thirty-six men who remained on the pier to watch the drama only two survived the explosion.



Smoke cloud above the explosion of S.S. *Grand Camp*. After 2-4 minutes the smoke cloud has pierced through the cloud ceiling 2,000 feet above Galveston Bay

At 9:15 A.M., approximately fifty-five minutes after the fire was discovered, the 882 tons of ammonium nitrate in No. 4 lower hold detonated and in close sequence caused the 1,400 tons in No. 2 to detonate, resulting in the complete destruction of the S.S. *Grand Camp*. A photograph taken from a position several miles from the explosion, and 2-4 minutes following the complete detonation of the *Grand Camp*, shows that the towering smoke cloud above the explosion had pierced through the cloud ceiling at a height probably 2,000 feet above Galveston Bay.

Twenty-seven members of the Texas City Volunteer Fire Department that responded to the alarm had begun firefighting operations on and about the ship when the No. 4 hold exploded. All were lost. Their four pieces of apparatus were destroyed to the extent that only parts of one piece could be identified. Several pictures of the fire department preparing for action, the ship burning, and the firemen applying water form part of the record of the Proceedings of the U.S. Coast Guard Court of Investigation.

The Court of Investigation found that the explosion of the *Grand Camp* generated tremendous pressure, “but appeared to have lacked the shattering destructive characteristics of an equivalent amount of a [TNT] nitro-high explosive.” Within a radius of one-half mile of Pier “O” the missile pattern that resulted from fragmentation of the ship was one missile to every two square feet. Missiles ranged in size from a rivet head to a portion of the ship’s structure estimated to weigh 60 tons.

The S.S. *High Flyer* was a World War II type C-2 cargo ship built at Oakland, California, in 1944 and was slightly larger than the *Grand Camp*. S.S. *High Flyer* was moored to Pier "A", 700 to 800 feet south of the *Grand Camp*. Prior to its arrival at Texas City the *High Flyer* had loaded 1,050 tons of sulphur in the No. 2 hold and 950 tons of sulphur in No. 4. At Texas City, 961 tons of ammonium nitrate had been loaded in the No. 3 lower hold.

Small areas within the *High Flyer*'s ammonium nitrate and sulphur cargoes were probably immediately set smoldering by red-hot steel fragments thrown off from the explosion of *Grand Camp*. Sparks and smoke were observed coming from one of the ship's forward holds three hours later at 11:20 A.M. But not until 6:00 P.M. did rescue personnel searching the badly damaged *High Flyer* see fire in the ship's No. 4 hold. Soon the sulphur cargo in Nos. 2 and 4 holds was on fire, and smoke was issuing from the ammonium nitrate cargo in No. 3. The fires burned slowly for five to six hours, but by 12:55 the morning of 17 April the ship's sulphur cargo was fully ablaze and the area was ordered evacuated. Fifteen minutes later at 1:10 A.M. the 961 tons of ammonium nitrate in the *High Flyer*'s No. 3 hold exploded. Because the area had been quickly evacuated the loss of life as a result of this explosion is reported as one; the injured reported as from 35 to 100. The explosion completely destroyed the *High Flyer*.

Meeting with Edward Teller at Los Alamos, continued.

When I had exposed a sufficient number of photos which showed Dr. Teller in his office at Los Alamos Scientific Laboratory reading the "History of 10,000 ton gadget" I put the camera down and asked him specifically what the bottom line reference to Port Chicago signified. He had studied the bottom line a moment and said it was Port Arthur, by which he intended reference to the Texas City disaster. I answered, "No, Ed. It's not Port Arthur. It's Port Chicago."

About then he knew I had deceived him and that I had no intention to interview him on the subject of the energy crisis but was there to talk about Port Chicago. His response was abrupt: "I believe you have a

classified document. You should take it immediately to the Classification Office. I will deny I have ever seen this document. I will deny I have discussed Port Chicago with you.” Fortunately the photos were successful. I did then use his secretary’s telephone to call the laboratory Classification Office and said I had a document in my hands that Ed Teller thought probably should be classified and Ed said I should carry it over to that office immediately.

I met the chief of the Classification Office in the foyer of the laboratory Administration Building and suggested we walk outside to the flag pole in the grassy area opposite the building entrance. As we walked I learned that lately many atomic bomb documents were discovered by the public and brought to his attention, but they always turned out to be bogus or insignificant. This one, I said, was the real thing and it was significant.

In Dr. Teller’s office I had written on the duplicate copy of the “History” I had with me that it was the “Property of Peter Vogel.” The document had no other mark of authorship or ownership, nor was any classification mark on it. When we had settled the question of the document’s authenticity I gave him the copy I had marked as my own property and said I wanted to know what the bottom line reference to Port Chicago signified. I also provided one of my business cards that bore the authoritative gold Seal of the State of New Mexico and identified me as the New Mexico State Energy Information Coordinator in the Resource and Development Division of the New Mexico Energy and Minerals Department, Bruce King, Governor.

The classification officer said he would call me when he had an answer and did two weeks later. To learn what Port Chicago was I was instructed to look in the entry for Disasters in the *Encyclopedia Americana*. There I first learned of the 17 July 1944 explosion and disaster at the Port Chicago Naval Magazine. The next week I went to the State Library in Santa Fe and found the *Time* magazine article “Strange Cargo” that reports that disaster in some detail. Particularly I noticed that witnesses had said the explosion that evening at 10:30 had illuminated the landscape for many miles around in a brilliant flash of white light, bright as noonday. Implicitly, it must be understood, the

brightness of noontime at Port Chicago on a clear day—in July around San Francisco Bay the noontime sun is often diffused to a gray pallor though the shroud of summer coastal fog.

I then turned to *The New York Times* editions for the days following the explosion and found there photographs of the destruction at Port Chicago and a much more extensively detailed account of the disaster. Although not of particular note in 1944, the paper did report that most of the men killed and injured at Port Chicago were Colored. Following the sequence of Port Chicago stories that had appeared in that newspaper during several months following the explosion I first learned of the Port Chicago work stoppage by those Negro sailors at the base who had survived the explosion without serious injury and were then set to be tried by Navy court-martial on the charge of mutiny-in-wartime. The Port Chicago story got more interesting with every fact that I learned.

The indefinite suspicion I had that a nuclear bomb test had been conducted somewhere obscurely identified in the “History” as Port Chicago was reinforced by what I read in *Time* magazine and *The New York Times*. It had been a massive explosion, perhaps the largest manmade explosion in history to that date; the frequently reported “blinding” white flash that illuminated the landscape at the moment of the Port Chicago explosion was startlingly suggestive of the brilliant “blinding” white flash associated with the Hiroshima atomic bomb explosion, especially as depicted in the book I had read by John Hersey, *Hiroshima*. The pitch and tone of Ed Teller’s response to his review of the “History of 10,000 ton gadget,” and his response to the bottom line reference to Port Chicago in that document, had also increased that suspicion.

Edward Teller had told me without hesitation on 27 August that he would deny, which is to say he would lie, that he had ever seen the “History” and had discussed Port Chicago with me. When a person emphatically and without reservation commits to a lie to conceal a truth or fact, the truth or fact that is to be concealed by that lie can be no more important than a personal foible or minor indiscretion that would, if known, cause the individual an acute passing embarrassment, but

that others would rank as a petty burlesque of mankind's more notable and momentous falsehoods. However, common homely logic readily educes the inference that if Edward Teller would brassily lie to conceal the fact that we had discussed Port Chicago and lie to conceal the fact that he had seen and carefully read the "History of 10,000 ton gadget," something about Port Chicago was more complicated than a personal foible or minor indiscretion.

The first business after the legislature established the New Mexico Energy Research and Development Institute was to lease office space for the new enterprise, equip and furnish those offices, hire the first support staff, and then begin the search for a suitable location in Santa Fe to construct our \$5 million office building. Two months later in very nice leased, new modern offices with panoramic views east to the Sangre de Cristo Mountains and west to the Jemez and Manzano Mountains we began preparation of a slate of candidates from which the governor would nominate and appoint the Institute Board of Directors and Technical Advisory Committee.

The enabling legislation specified that the Institute Board of Directors should be selected from the most experienced and knowledgeable luminaries of the energy sciences, energy resource production, development and marketing whom we could persuade to give their time, wisdom and energy to direction of the Institute purposes and programs. The Institute's Technical Advisory Committee was to be composed of the most experienced and knowledgeable scientists and engineers that we could draw from industry, the state's universities and colleges. The enabling legislation specifically directed that the new Institute should, as much as possible, draw from the scientific and technical expertise of the state's national laboratories: Los Alamos Scientific Laboratory and Sandia National Laboratory.

By appointment of the governor I moved from the Energy and Minerals Department to the Institute in the position of Liaison Officer where my responsibilities immediately included explaining the purposes and programs of the Institute to those persons whom the governor would nominate to the Institute Board of Directors. The first letter of nomination the governor sent went to Los Alamos Scientific

Laboratory Director Donald M. Kerr, Jr. If LASL director Kerr would agree to serve on the board we thought others whom the governor had selected to nominate would be willing to serve as well. If Don Kerr declined the governor's nomination we would not be able to attract the stellar Board of Directors we needed. The Technical Advisory Committee, lacking a blazing Board of Directors, would be helpful but not composed of the world-class scientists and engineers whose expertise we also needed. In mid-September 1980 I made an appointment to meet Dr. Kerr at Los Alamos to discuss with him the purposes and programs of the Institute and, I hoped, to persuade him to accept the governor's nomination and be the board's cornerstone of excellence.

Don Kerr's was a corner office on the third floor of the administration building at Los Alamos, also with very nice panoramic views of the Jemez Mountains that rise to their peaks behind Los Alamos which lies at 9,000 feet on their eastern slope. During the first 20 minutes of our meeting I made my pitch for the Institute and that he should accept the governor's nomination to the board. The mandate of the national laboratories includes the directive to assist and cooperate with state governments where the laboratories are located as may be beneficial and appropriate, so the governor's request for his service on the board was comprehended by the compass of his office.

Don then agreed to serve on the board, as he said, if others of comparable stature would also agree to serve. That would not be a problem. With Don's agreement to serve, others of comparable stature would line up for the opportunity to join the board. That business concluded, I took the "History of 10,000 ton gadget" out of my briefcase, handed it to him, directed his attention to the bottom line, and said we'd be very happy to have his expertise and guidance on the Board of Directors, but there was the matter of Port Chicago. I was, I told him, reasonably convinced the Port Chicago explosion had been a nuclear weapon test conducted by Los Alamos; that I intended to make that a public issue; and if he accepted the governor's nomination he was going to have to deal with me because Governor King had appointed me to the Institute and I was, ex officio and by statute, Secretary of the Institute Board of Directors.

Don was noticeably miffed by the complications that unexpected topic would contribute to his service on the board and immediately proposed that Ed Teller, whom Don knew was then at Los Alamos, would refute that idea; Don reached for the telephone on his desk to get Ed on the line for that purpose and I said, “Don’t bother. I’ve already spoken with him about it and I respect the man too much to take up more of his time.” Don then said to me, “You’ll never be able to prove it.” I said that I’d do the best I could, and would he serve on the board if I could get other men of comparable stature?

He agreed and that ended our first meeting. From that time we worked three years together. There were challenging incidents that came up between us during those years but which were always more farcical, I thought, than grave. For example during the first meeting of the board, in executive session, the agenda included review of “Institute Personnel Qualifications.” Don frostily challenged the scientific and technical qualifications I brought to the position I held; I voiced a frosty remark in response, and the board approved the qualifications of existing Institute personnel but disapproved the new \$5 million Institute office building.

Anyway, I served at the pleasure of Governor King, and the governor was so well pleased with my work with the program that he had also appointed me an honorary colonel in the New Mexico National Guard. Additionally I served on the Energy Committee of the New Mexico Society of Professional Engineers, was a member of the industry-critical New Mexico Carbon Dioxide Enhanced Oil Recovery Research Review Committee, served on the Executive Committee of the New Mexico Solar Energy Association Board of Directors, had negotiated a new Queenair for the governor’s office, and frequently performed traditional New Mexico folk music at the governor’s parties with the band I sang with, *Los Travadores de Santa Fé*. It would have been difficult to persuade the governor to be displeased with my service.

The board members probably did expect Don to challenge the fitness of my qualifications for employment in the Institute and as designated secretary of the board because in conversations with those men before

each had accepted the governor's nomination I had explained that Don and I had what I described as a well-tempered factual dispute ongoing on the subject of the 1944 explosion and disaster at Port Chicago in California that had killed 320 men, most of them Negroes, and the role of Los Alamos in that disaster.

The board members had accepted that condition before they joined the board, and in the next years they all became generally interested by the Port Chicago history that I forewent no suitable opportunity to discuss with them, or anyone who would listen. To understand the pertinence of those men's interest in the Port Chicago work I was developing it is appropriate to acknowledge who those men were who served on the Institute Board of Directors. Los Alamos Scientific Laboratory director Kerr was elected chairman of the board; former Los Alamos Manhattan Project physicist, Provost of the University of New Mexico McAllister H. Hull, Jr. chaired the Institute's Technical Advisory Committee. Members of the Institute Board of Directors were:

Robert O. Anderson, Chairman of the Board, Atlantic Richfield Company

Jack M. Campbell, former Governor of New Mexico,

Edward F. Hammel, Consultant to the Office of Planning and Analysis, Los Alamos National Laboratory,

Frank S. Hemingway, retired Technical Director, White Sands Missile Range,

Larry Kehoe, Secretary of the New Mexico Energy and Minerals Department,

Donald M. Kerr, Director, Los Alamos Scientific Laboratory,

Dean A. McGee, Chairman, Executive Committee, Kerr-McGee Corporation.

Dean A. McGee, who died September 15, 1989, was the most ethical, honest, even-tempered, affable, open-minded and modest man I have known who coupled that remarkable character with the usual fierce

competition and self-interests of even a small business. But Dean McGee conducted a worldwide billion-dollar energy business behemoth and maintained the calm, unirrascible character of his person which inspired an entirely deserved personal and business confidence among his associates that, no doubt, permitted him business opportunities unavailable to others whose temperament and modes of interaction were more strident.

He was a geologist who received his B.S. degree from the University of Kansas and served Phillips Petroleum Company for ten years as chief geologist. He resigned in 1937 to become vice president of Kerlyn Oil Company, predecessor to the Kerr-McGee Corporation. He became executive vice president of Kerr-McGee in 1942, president in 1954, and chairman of the board and chief executive officer in 1967.

The Kerr-McGee uranium mining and milling operations at Ambrosia Lake, New Mexico, during the term of his service on the state's energy research institute board were in standby shutdown, but a wonderland of tidily suspended animation to visit. The world market price for refined uranium ore, yellow cake, was considerably below the break-even production costs of the domestic uranium industry. The worldwide nuclear power industry—then the big market for uranium—held substantial uranium reserves; guaranteed federal government uranium purchases and price support had nearly ceased. The associated costs of standby shutdown at Ambrosia Lake were very high and included the huge electricity costs necessary to operate the mammoth pumps that continuously dewatered the inflow of groundwater from the mines; the cost of cleaning up that water pumped from the mines contributed another large expense. The uranium boom that originated in the late 1940s was over. During 1989 Kerr-McGee completed the sale of all the company's worldwide uranium interests.

During the period of our acquaintance in the early 1980s Dean McGee and Kerr-McGee Corporation were confronted with the enigmatic plutonium poisoning of a company employee, Karen Silkwood. My original article on the Port Chicago explosion, which alleged the explosion had been an unannounced nuclear weapon test, had been published in spring 1982 and was the subject of frequent discussion

among the men and several women associated with the Energy Research and Development Institute programs. Mr. McGee was, of course, considerably acquainted with the physics and chemistry of the small explosions that are part of petroleum resource prospecting and minerals mining operations and he readily contributed what he could to my understanding of the “History of 10,000 ton gadget.” Whatever evil was done in the Karen Silkwood affair I am confident from the experience of my three years acquaintance with Mr. McGee that he was ignorant of any wrong action or purpose intended or committed by any person in his employment, for whom his own character and behavior should have been the founder’s paradigm to transcend any employee’s inclination to criminal character and behavior.

The progress of my study of the Port Chicago explosion has been facilitated by my practice of speaking to anyone and everyone about the explosion and my view that the explosion had been a very well concealed nuclear weapon test conducted by Los Alamos. I am certain the dominance of that theme in my conversations with others has often been tedious and annoying but that’s the way it had to be done, and the practice often produced pertinent information that I would not otherwise have learned. Sharing a car with old and new friends en route to a party one evening in Santa Fe in early summer 1981 I learned that one of the guests with whom I traveled was a meteorologist at LANL, to whom I expounded my view as we drove along that the Port Chicago explosion had been a nuclear fission weapon test secretly conducted by Los Alamos. Either I have forgotten or I never knew the reason that meteorologist had studied the Port Chicago explosion, but he asked me if I were aware of the extensive Port Chicago explosion documentary files that were available in the Archives at Los Alamos laboratory. I was not aware those documents existed at Los Alamos.

A few days later I telephoned to the laboratory archivist Walter Bramlett and told him I had been told the Archives held a large collection of documents pertaining to the 1944 Port Chicago explosion in California and that I would like to have access to those files. Walt Bramlett had come to Los Alamos in 1945 as the first postwar archivist when the only archived materials at the lab were those that had originated with the Manhattan Project. Walt, I believe, knew the war-

time Los Alamos Manhattan Project materials, classified and not, and all the unpublished details of wartime Los Alamos better than any other person there before he arrived or who has followed his tenure of 37 years as the laboratory's archivist, and he brought a sense of humane humor to his work.

Walt told me without a trace of humor in his voice how it was really a shame I hadn't called about the Port Chicago materials two weeks earlier because they had since been culled from the Archives and destroyed. The laboratory Archives, he said, were getting much too large for the available space and would be unmanageable without occasionally culling materials for which there had been no expressed interest during several years. All the Port Chicago files, and they had been extensive, were gone. In response I said I hadn't wanted to hear that, wondering at that moment if my reputation had preceded me, and he laughed and said of course he had all the Port Chicago files, but I would have to ask the laboratory Classification Office to review them before I could come to the Archives and go through those materials.

I wrote the letter and within a month the Classification Office had reviewed all those 7 linear feet of Port Chicago documents and approved that they were cleared for my access. I spent intermittent afternoons in the Archives for a month and became acquainted with those materials in detail; I made extensive notes on the materials, copied one page only, and got to know Walt Bramlett well enough that we would go out to lunch together and talk about Port Chicago and my view that the explosion had been a test of a nuclear fission weapon. Walt, in my view of things, came as close to a direct acknowledgment that the Port Chicago explosion had been the test I claimed it was as anyone had done. After a full New Mexican lunch and a few beers I allowed as how I didn't understand that we could have done that to our own men. To understand that we could have done that to our own men Walt said I had to remember that the men killed in the explosion were mostly niggers.

In 1981 in New Mexico, Negro was still the current epithetic noun used to identify members of the Negroid ethnic division of the human species, especially one of the various peoples of central and southern

Africa and their descendants in the New World. Black man and black woman were terms that had some currency among the more liberal progressive-minded residents of the state in 1981, but the dignity of full humanity and fully participating social, economic and political citizenship conveyed by the descriptor African-American was a long time coming into that area.

When Walter Bramlett used the term niggers in 1981 to describe most of the men killed in the Port Chicago explosion it seemed to me he wanted to be sure by that epithet that I understood where the Negro ranked in the general public and corresponding Armed Services perception of the order of humanity in 1944. Most Americans then did not account that Negro males should be classified as men, and they were certainly not to be counted among our men and our boys. The longstanding prejudice of naming African-American men “boys” makes it somewhat difficult to remember that all the African-American men who died at Port Chicago were, in fact, essentially boys; few were older than 21 and many of those who had volunteered in military service were big boys who lied and said they were 18 when they were actually 16 and 17 years old; some of the boys who died at Port Chicago probably were younger than 16.

Photographs and illustrations credits.

Dr. Edward Teller (1908-2003) reading “History of 10,000 ton gadget,” Los Alamos Scientific Laboratory, 27 August 1980. Source: Photograph by Peter Vogel.

Smoke cloud above the explosion of S.S. *Grand Camp*. After 2-4 minutes the smoke cloud has pierced through the cloud ceiling 2,000 feet above Galveston Bay. Source: Houston, Texas, *Chronicle* newspaper.