Those early days as we remember them

Austin M. Brues
Biological and Medical Research Division

I would like to start my story a few months before I joined the Metallurgical Laboratory in the fall of 1944. I was engaged in some wartime research on battlefield shock, and was involved in some therapy and research with P^{32}; in the course of which I was accustomed to carrying tubes of it between M.I.T. and my laboratory in a shirt pocket.

I became aware of a hush-hush project in Chicago which was recruiting an odd bag of people: a nuclear physicist, a couple of radiologists, a pathologist, a radiation botanist and finally, a biochemist who was my colleague in a little study on DNA. I confided to the latter that I was beginning to put 235 and 235 together — and before long I found myself under some pressure to move to Chicago: as I have suspected, so that my thoughts could be given the proper security classification.

The scene of my Chicago career was called Site B, a building south of the Midway with an ancient, imposing brick facade. It had lately been a brewery (hence the B?) connected by a single passage, which resembled the door to Rhamses' tomb, with a wooden labyrinth in the rear that had been a riding stable. The front part was occupied by Metallurgy proper and contained massive equipment which rolled, pounded, and thundered away while a bevy of young ladies in a room directly above attempted to see — let alone count — blood cells under the microscope.

Far in the rear was a sort of broom closet with a hood and a lot of lead bricks crammed into it. This was a hot lab. On the wall was a neatly printed sign which read:

IN CASE OF A SPILL

1. Hold your breath
2. Leave the room promptly
3. Report to your supervisor
   [and at the bottom, in pencil, someone had written:]
4. Take a breath

We had an animal farm with a remarkable number of small animals, mostly mice. This section of Site B was air-conditioned with a variety of equipment, and at rather frequent intervals — mostly at night — a valve would stick in a remote part of the building so that the radiators would fail to shut off and we would have to move all the animals out into the corridors until the valve was unstuck.

Our activities were coordinated with some at a place in Tennessee known as Site X, a half-hour drive from a milk siding on the Louisville and Nashville railroad. It was felt important to keep secret the relation between this place and Chicago. This was not entirely easy. Mice which were being exposed to neutrons there also had to be exposed to X-rays.

However, Army procurement saw no sense in buying an X-ray machine for "X" if there already was one in Chicago; while Army security forbade ordering the same things at the same time for the two laboratories. Thus we spent the wartime years buying mice every fortnight and then reshipping half of them to Oak Ridge by a truck that brought us back fission products.

All in all, those days were exciting and full of purpose, even though a lot of people saw no reason for a biology section in the Metallurgical Laboratory just because massive quantities of radioactivity were being manufactured. When enough plutonium had been manufactured so that there was enough to spare to measure in dogs and goats, one of the younger dogs slipped out of Site B past the guard who was posted to control the movements of people and packages. The runaway was pursued over several blocks of Woodlawn by an assortment of people in white coats and finally was cornered and returned to his cage.

And finally, to complete this attempt to give a little of the flavor of those days, I will mention the couple I saw, lying in

the grass of the Midway as I returned to Site B from one of the nocturnal mousecooling expeditions. And they were doing what? Under the light of a street lamp, playing a game of chess.

Nora L. Watson
Materials Handling Department

I worked as a clerk at the Armory, 53rd street and Cottage Grove in Chicago. My job was to issue office supplies. Friends often would ask, "What do they make where you work?" I never knew. There was no assembly line, nor any sign of defense activity.

But one day the significance of our work was made clear. We were asked to assemble in the main room of the Armory. As we gathered, knowing only that some "brass" were present and some University of Chicago officials, we wondered what this was all about. The place of assembly, usually used for horses, was large but, well, not exactly beautifully kept up.

A truck had been brought to the center of the room. The officials were standing on the platform bed of the truck. Dr. A. H. Compton, first Director of the Metallurgical Laboratory, was a main speaker and I remember vividly a part of his speech. The day was August 6, 1945. "We have been successful in completing the race before Germany," he said, "in being first to produce the atomic bomb." Then, his voice never faltering, Dr. Compton gave great praise; to the scientists of course, but also to everyone who had been involved, "even the person who passed out stationery and pencils for use at the Laboratory," were words he used.

I felt extremely proud. I felt I had made a definite contribution. However small, it had helped make history.

Mary L. Erickson
Central Shops

I was a Site A-er. I started on the hill in September of 1946. After bring stopped at the lower lodge by Guard Ross Chilvers (deceased), it was to me slightly frighten ing to go up the narrow, winding road to a world unknown to the local residents. A few late summer flowers were in bloom around the base of the flag pole in the yard just outside the main office building. I entered the building to go down a long, dark, drab hall past time clocks to enter the small, approximately 12 x 12, office occupied by Larry Reed (deceased), foreman of the machine shop, and Gus Knuth (deceased), foreman of the carpenter gang. This was to be my home for the next couple of years.

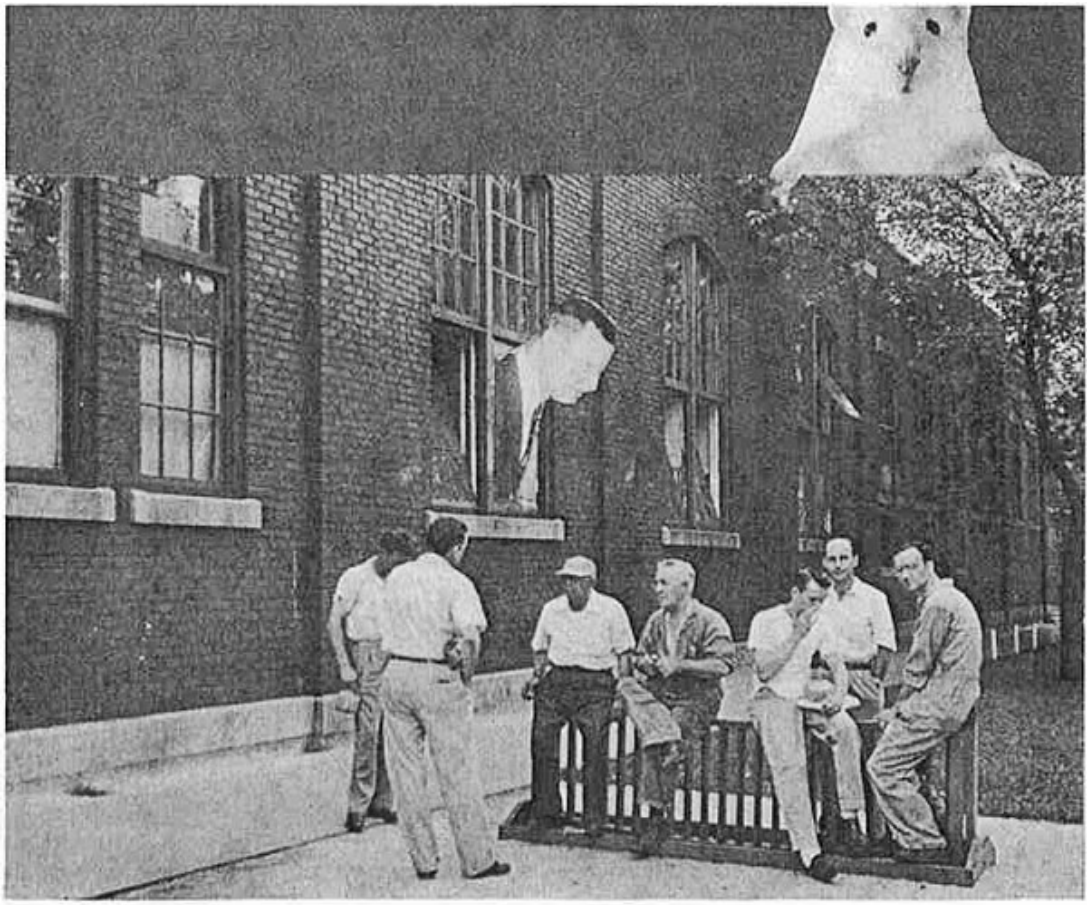
I vividly remember Christmas. The smell that hit you as you entered the building came from the chemistry lab and was nothing other than a huge bucket of glug that cooked for two or three days, it seems to me, in preparation for the day before Christmas party.

Springtime at Site A was pure beauty. The roadway from Archer Avenue all the way to the site was lined with wild crab apple trees in blossom. The ground was literally covered with both purple and dog-tooth violets. And one could find jack-inthe-pulpits and buttercups with very little effort.

A summer recollection is Dr. Nathan Sugarman running wildly down the hall in his shorts — at that time rather strange attire.

There were buses that loaded just outside the office area, and a constant late arrival was our nurse, Ruth Rottman. She seemed to think that since she was in no hurry to get home, no one else was either. The cafeteria was a wooden building where everyone managed to meet midmornings and afternoons for some of Bess Altman's and May Simons' (deceased) goodies. Often at lunch we were able to order the kind of pie we would like for our three o'clock break. Then, come Friday it was clean-out-the-refrigerator day, more commonly known as smorgasbord. Anyway, we ate everything left from the rest of the week.

It was in the cafeteria that we heard the announcement. Standing atop a Coke box that (it seems to me) wasn't too stable, Dr. Zinn told us about the purchase of the present DuPage site. This meant progress, but also change, and we received it with mixed feelings. It heralded the end of Site A, a place and a time which would be remembered always with affection.



Men of Bio-Med and Metallurgy, gathered for lunch at the bicycle rack outside Site B under the (contrived) gaze of Dr. Austin Brues and presided over by a member of the omnipresent mouse colony. The photo and embellishments were probably the cooperative caper of Jane Glaser and Atlee Tracy, long-time photographers in BIM.

Ace L. Singleton
Personnel Division

I first worked for the Metallurgical Laboratory at New Chern but as a member of the Reclamation Department, I was one of the team of experts assigned to the restoration of West Stands, Site B, New Chern, and in 1954-56 Site A. In this work we were required to wear two pairs of coveralls, three pairs of gloves, hard hats, safety shoes and shoe covers, and to breathe through Scott supplied air masks. At Site A we dismantled CP-2 (which in turn had been built of the dismantled and moved CP-1), removing among other materials 282 tons of graphite, a dirty material like soft coal. All but 72 tons, which were disposed of as dry active waste, was vacuumed, washed, stacked on pallets, and banded, then used at Site D to construct the Argonaut reactor, a subcritical assembly used for instruction in the International Institute of Nuclear Science and Engineering.

I was glad when it was over, had developed a thorough distaste for graphite and thought I'd seen the last of it. But not quite.

In 1967 as a guest at the first 25-year Service Award dinner, I received two important mementos. One was a service award pin set with a diamond. The other was — yes — a small bar of graphite. Quite innocently, it was a potent reminder of a trying time in my Reclamation career. However, handling this piece was no problem. It was encased in lucite and inscribed: "Graphite from CP-1, the first nuclear reactor, December 2, 1942, Stagg Field, The University of Chicago."

Mary K. Walsh
Chemistry Division

In memory, our work in the infant atomic energy field during the middle and late 1940s, Hyde Park, and The

University of Chicago "on the south side of Chicago", as that popular song of a few years ago put it, seem all intertwined.

For those of us who could, to walk to work in a big city was a rare privilege: one got one's exercise automatically, saved money, and avoided the sardine syndrome of public transportation. Thoughts of the 20 minutes it took me, on bright, leafpopping spring mornings, or on crispy, cloudy fall mornings, evoke feelings of well-being and peace still.

Then there were spring and summer lunches, in the shade of a nice tree in Washington Park or on the university grounds. And the walk south on Ellis Avenue from 56th Street with its vista of historic West Stands and its ancient-looking Gothic towers. And 55th Street's myriad collection of stores, now long gone, replaced by the phenomenon known as Urban Renewal.

To walk across the Midway to 63rd Street — a city in itself — is another whole chapter of memory. To see the students headed for their various destinations and the great buildings of the university was to feel a thrill in being connected, however modestly, with it all. One wished destiny had arranged that one could have been a student there.

Enough for the externals. Our group, the Spectrographic Laboratory, had a four-room "suite" in New Chemistry. The building had been erected at the beginning of the Manhattan Project. It was a far cry from the whole wing and a dozen or so rooms we have now. We had an instrument room where the spectrographs were housed, a small office, a small room for special laboratory work, and a general sample preparation room. The latter had an Lshaped arrangement of tables in the center, accommodating our analytical balances as well as a space for grinding samples. These were mostly uranium oxide, beryllium oxide, thorium oxide, zirconium oxide, and aluminum oxide. Along one wall was a small darkroom and two hoods where we prepared samples. Along another wall was a sink and a bench for drying glassware. Benches for miscellaneous other work lined the remaining two walls. On one was a furnace for heating samples, and on top of it was an old-fashioned oscillating fan which we kept going full speed in summer. The office had a big old-fashioned radiator; I remember one warm Indian Summer day when it was going furiously. We also had a small room down the hall, known as a densitometer room, with a few more instruments.

When we moved to DuPage and the new Argonne, a special weighing room seemed a mixed blessing. It was great to be able to keep the analytical balances away from acid fumes; but to go even next door to the sample preparation room seemed a far piece to walk.

Time marches on, but it's still a thrill to have been a part of those days and to have seen the many advances the Laboratory has been responsible for. I'm sure I'm not alone in these feelings.

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