

Oak Ridge Technical Enterprises Corporation – ORTEC:
A company is formed
(As published in *The Oak Ridger's Historically Speaking* column on November 29, 2011)

As we continue with Hal Schmidt's story of the formation of ORTEC, we will now look at the early discussions at the Oak Ridge National Laboratory where Hal and others who were involved with this first of a kind effort were employed at the time. The innovative thinking and creative ideas that led to the formation of this company laid the ground work for others to follow.

Hal's story continues:

We were more or less in constant contact with Joe Fowler [then ORNL Physics Division Director] anyway with respect to our on-going research, but in any case we were keeping him informed of these developments as they occurred. Since I was probably the primary contact in this regard, I more or less carried the ball.

As to whether or not the extracurricular activities would be okay and whether there would be any problem with Laboratory policies, Fowler simply said he did not know and we should talk with the ORNL Director's office. Specifically he recommended that I talk with Mansel Ramsey, Associate Director for Administrative Affairs.

In my conversation with Ramsey, he said he did not see a problem with our forming such a company, pointing out previous cases in which Laboratory employees had done similar things. His examples were that some electricians had their own private businesses outside their ORNL employment. Also several employees were part owners in various businesses in the area.

However, he recommended that we study ORNL's Standard Practice Procedures that relate to the subject, specifically SPP D-3-5. Then write up our plans in a letter addressed to the Director, and deliver it to his (Ramsey's) office for appropriate review and action, possibly including legal review.

We did study the Standard Practice Procedures, and then on May 31, 1960 wrote a letter (actually a memorandum) to A. M. Weinberg and J. A. Swartout, Director and Deputy Director, respectively, with copies to Fowler and Borkowski. This letter began with the following three paragraphs:

"The purpose of this note is to request clarification of Laboratory policy as it relates to the formation and operation of a small company in Oak Ridge to make and sell special items of scientific equipment. The proposed company would be formed by a small group of Laboratory employees who would work with the company on a limited basis as owners, and not as salaried employees. This work would be carried on completely apart from and subsidiary to our ORNL jobs and responsibilities.

"We are interested above all in Oak Ridge National Laboratory; we intend our activities in the proposed company to be only minor 'extra-curricular' activities. We have studied Standard Practice Procedure D-3-5, dated September 3 and 24, 1957, which bears on the present question, and feel that these contemplated activities do conform with the policy stated there. We should like to insure, however, that these activities are governed only by the above-mentioned Standard Practice Procedure and that no conflict exists with Laboratory policy. We would appreciate your reply on this point.

"The remainder of this note will serve to outline the pertinent features of the proposed organization."

On May 31, 1960 I delivered this letter personally to Ramsey, and on June 1, the day afterward, Jack Gibbons and I visited with him at his office. According to my notes, hand-written immediately after our meeting:

"Ramsey said there should be no difficulty with this, that the administration probably would not have to reply in writing, and that we should simply give a copy of the bylaws, code of ethics, and this letter to the company (Union Carbide Corp.) lawyers. He said they would simply say in legal terms what he (Ramsey) is saying. Two principal restrictions are: non-interference with (our) ORNL jobs; and use only of

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information available to the public. He said that we would probably have to be most careful on the last point.”

We were pleased with this response from Ramsey (except that we would probably not be getting a response in writing) and took his verbal assurances and request for bylaws essentially as approval to go ahead with formation of the company. We worked with an attorney who assisted us with incorporation in Tennessee (completed in July 1960) and writing suitable bylaws, as well as setting up proper business procedures as necessary for a small business. We organized ourselves, beginning with the fact that we were operating as a real team, being friends and the professional equals that we were.

Officially we needed a president and, though I did not seek the job, I was elected, I suppose because I had done a lot of the administrative stuff to this point, and perhaps because I'd initially seen first-hand the need for the detectors and had dealt with the fabrication process. Emmer, Gibbons, Johnson, Miller, and Neiler were vice presidents. And we were all board members.

The organization and division of duties among us was one of the easiest things we had to do – almost natural, given our various specialties and inclinations. Among us, Neiler, most experienced in instrumentation, would oversee the detector work and setup of production.

He and Emmer would handle the electronics. Johnson, being the mechanical engineer and designer among us, would design and oversee the vacuum systems and the many intricate mechanical parts (detector mounts and other items) that were required.

Gibbons and Miller, with their very outgoing personalities and wide knowledge of experimenters around the country, would handle the sales effort. My job was that of overall coordination and organization, ORNL relations, handling paperwork wherever it occurred, catching whatever fell between the cracks, and helping where needed.

We made it a point to communicate among each other openly and completely, so that all of us knew what was going on throughout the effort. We met as a group often, in fact weekly (evenings), and of course communicated in pairs or subgroups as needed between meetings.

By August the formal work was done, and we were ready to capitalize the company, subject to official approval from Ramsey's office after review.

In accordance with Ramsey's instructions to submit bylaws, we wrote a letter to him dated August 19 and shown in its entirety in Appendix POS-II, and delivered it to him with a copy of the bylaws. As to a code of ethics, we did not write a code of ethics at that time – just too much else to do. But we included in this letter a couple of policy points that we thought might address the sensitive issues for ORNL administration.

These are included in the following sentences excerpted from the letter:

“As to our mode of operation: We should like to underscore the policy that activities in ORTEC by Laboratory staff members are apart from and subsidiary to their employment at ORNL. It is a matter of policy that Laboratory information used by ORTEC shall be in the public domain. Very special care is to be taken to avoid conflict-of-interest problems. Whether or not the company makes sales to any Oak Ridge installation has not been of concern in the formation of the company.”

As we delivered this letter and the bylaws to Ramsey, it was clear from his comments that he would see to their review as necessary, both legal and otherwise.

Indeed, we heard from Ramsey a few weeks later to the effect that he had received a letter dated August 26 from W. L. Harwell of the Legal and Information Control office of Union Carbide Corp., which at that

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time was the operating company of ORNL. Ramsey said that, consistent with his earlier comments and prediction, the legal opinion was, to quote from Harwell's letter, "we find no fault with either the letter (dated August 19) or the bylaws from the standpoint of Carbide's or the Commission's interest." Ramsey provided us with a copy of that letter.

At this point we felt that we had all the administrative approval we needed, as did Joe Fowler, our division director. His concern was simply that we continue the high quality of nuclear physics research that ORNL was known for, and not let our ORTEC activities interfere with that.

Based on this, and having organized the company, we were ready to seek capital and begin operations. Actually, based on Ramsey's earlier assurances, we had begun preliminary work in June.

In the early stages of discussions and conversations within our initial group of six, and as we were getting used to the idea of an "extracurricular company," ideas occurred to each of us as to what such a company might do and be. In the beginning, of course, we had no idea how durable the business of silicon detectors might be, so we wanted to leave room in our concept – and in the name – for other activities.

Ideas included, for example, producing scientific educational materials and/or equipment, making and selling devices based on a number of technical developments we knew about from other contacts various ones of us had, perhaps advanced accelerator ion sources, etc. And we wanted a catchy name that would be easy to remember but not too cute, so that it would connote high quality in whatever we did.

Finally, after we considered literally dozens of names involving a plethora of words, phrases, and combinations of them, John Neiler came up with "Oak Ridge Technical Enterprises Corporation," and its acronym, "ORTEC." When he brought this name to the group, we ALL said, in effect, "YES!! Perfect!!"

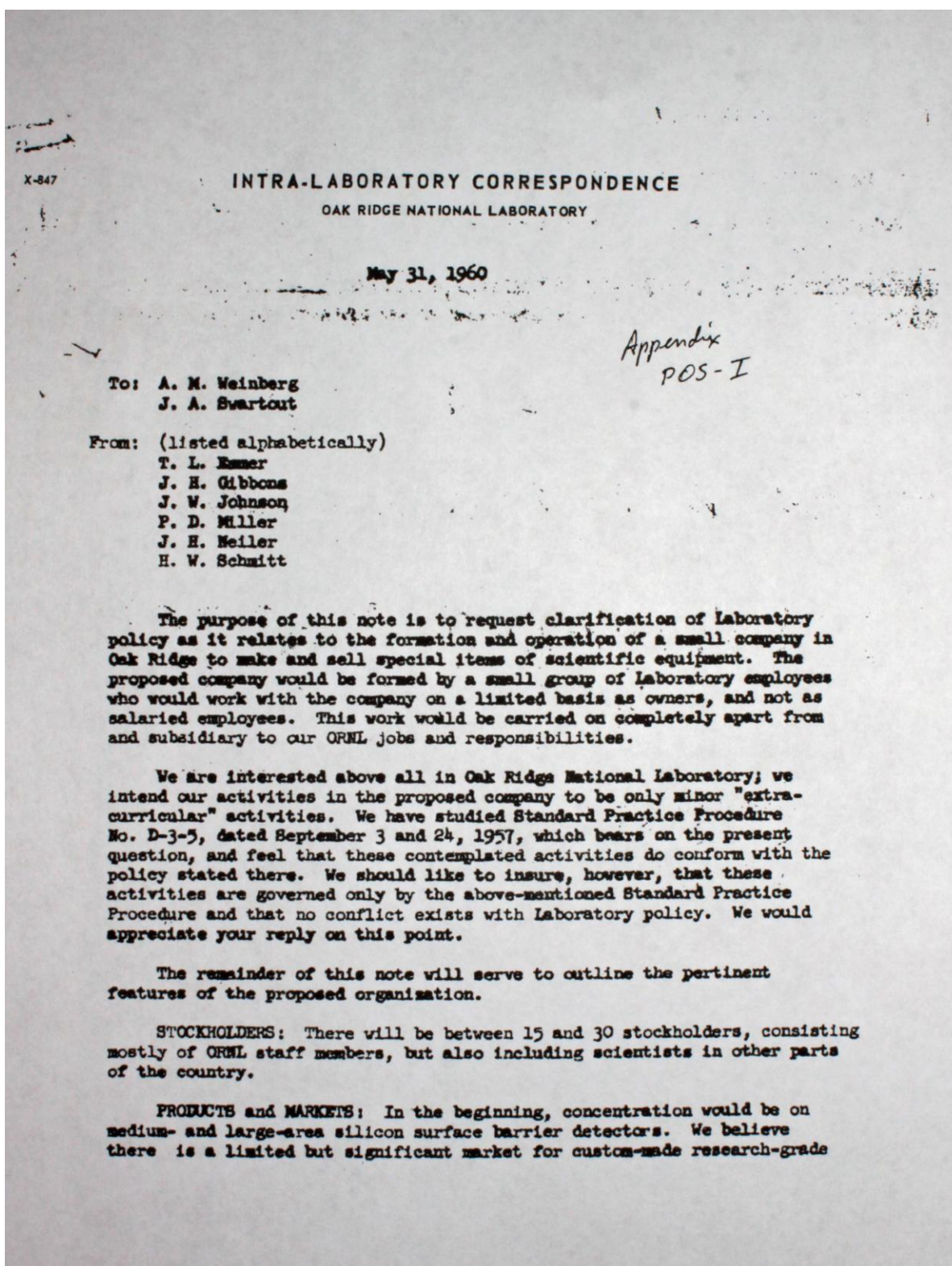
The name provided the umbrella that we wanted, and the acronym could be used in branding, labeling, and referencing however we would want to use it. The date was June 15, 1960, a landmark that provided the right focus from that point onward.

We incorporated under that name, used it in our bylaws, and referred to the company by that name and, more often, by the acronym ORTEC in all our future correspondence and discussions.

* * *

A new company has been formed and Hal will tell us about the early efforts to grow the enterprise in the next column.

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Page 1 of Hal's letter of May 31, 1960, to Alvin Weinberg, ORNL Director

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Dr. A. M. Weinberg

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May 31, 1960

counters such as might be supplied by this company. If this operation is successful, other products may be marketed. Whether or not ORNL would purchase items from this company has not been of concern in considering the company's formation.

LABOR and FACILITIES: Oak Ridge is fortunate to have in residence a number of retired machinists and other highly skilled craftsmen who would enjoy working in an endeavor such as that described here. Labor and facilities would be financed initially from capital obtained in the initial sale of stock.

OPERATION: Consultants, accountants, and legal firms would be engaged to handle appropriate aspects of the business. The skilled craftsmen employed would work with a minimum of technical supervision from the owners. Other aspects of operation would be worked out as progress is made.

GENERAL COMMENTS: It would seem that Oak Ridge is a logical place for the formation and growth of a corporation such as this; certainly, this type of industrial activity is suited to this area. The question at hand concerns the policy of the Laboratory as it governs the extra-curricular activities of its employees in such an endeavor.

cc: J. L. Fowler
C. J. Borkowski

Business
Talk with M. E. Ramsey, 6/1/60 - ^{Business} said there should be no difficulty with this, that the Administration probably would not have to reply in writing, and that we should simply give a copy of the by-laws and "code of ethics" and this letter to the company lawyers. He said they would simply say in legal terms what he (Ramsey) is saying. Two principal restrictions are non-interference with ORNL jobs and use only of information available to public. Said we would probably have to be most careful on last point. Cited precedents of electricians running own shops, Higgins + Roberts, etc.

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*Appendix
POS - II*

TO: M. E. Ramsey

August 19, 1960

In accordance with your verbal request of June 1, 1960, I am enclosing a set of by-laws governing the formation and operation of ORTEC, a corporation formed by a number of scientists and businessmen including ORNL staff members whose activities in said corporation are extracurricular to their employment and responsibilities at ORNL. We refer to our ORNL memorandum of May 31 (addressed to Drs. Weinberg and Swartout, delivered to your office), in which we outlined the proposed activities of the company and some of the features of the organization. In that memorandum we also requested clarification of Laboratory policy as it relates to such activities; we appreciated the clarification as you outlined it verbally to J. H. Gibbons and myself in your office on June 1.

Inasmuch as we received your verbal assurance at that time that the activities we proposed were consistent with Laboratory policy, the corporation has been formed and operations have begun. There have been no major changes in any aspect of operation or organization as outlined in our previous memorandum; the only change at all is that stockholders are not to be excluded from compensation for specific kinds of services to the company.

As to our mode of operation: We should like to underscore the policy that activities in ORTEC by Laboratory staff members are apart from and subsidiary to their employment at ORNL. It is a matter of policy that Laboratory information used by ORTEC shall be in the public domain. Very special care is to be taken to avoid conflict-of-interest problems. Whether or not the company makes sales to any Oak Ridge installation has not been of concern in the formation of the company.

We believe that the existence of ORTEC may prove to be of mutual benefit to the individuals involved and to the technical installations in Oak Ridge, as well as to the city and surrounding area.

Sincerely,

HWS

H. W. Schmitt
For the ORTEC Board

T. L. Emswiler
J. H. Gibbons
J. W. Johnson
P. D. Miller
J. H. Neiler
H. W. Schmitt

Hal's response letter of August 19, 1960, sent to Mansel Ramsey meeting the requirements of the earlier discussion

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Hal's handwritten notes after meeting with Mansel Ramsey to learn the results of his letter to Alvin Weinberg