

THE MODERATOR

B R E A C T O R M U S E U M A S S O C I A T I O N

July—September

Vol. 25, Issue 3

Summer 2019

From The Control Room

by BRMA President Robert Franklin

This will be a shorter article than normal because I haven't been at the helm of the BRMA ship these past few weeks – I've been doing something arguably much more important. I'm pleased to announce the arrival of the newest and youngest BRMA member – Lanis William Franklin, a healthy baby boy born on June 9th, 2019 (see picture). As you can imagine I've been up to my eyeballs in baby cuddles, dirty diapers, and sleepless nights. I don't like to overuse the term “miracle”, but that's exactly what this little guy is to me. I'm reminded of the story Bob Ferguson, a former B Reactor operator (not the current Washington State AG), tells of his wife giving birth right as he was starting up the reactor.



Proud Papa & Lanus

Frankly, as I type this it's hard to remember anything before June 9th, but I'll do my best to recall the news as it comes to me. Perhaps the biggest item for BRMA is the purchase of the entire inventory of the Atomic Heritage Foundation store. The AHF is closing its online store and reducing staff to just Cindy Kelly, reflecting the changing fortunes of history. I'd like to take a moment to recognize the valuable role that AHF has played in not only telling the story of the Manhattan Project in full, but specifically past partnerships with the BRMA that

resulted in many of the models and signage out at the B Reactor. These are used at every tour and a crucial part of the interpretive program—I don't know what exactly the docents would do without them. In addition, AHF and BRMA member (and former President) Hank Kosmata worked on a series of “Know Before You Go” videos to educate the public on the various elements of the B Reactor story. It's sad to hear of AHF's downsizing, and I hope you join me in wishing Cindy, Nate, and Alex at AHF well. This souvenir purchase is a big investment for BRMA and reflects our growing role of “gift shop facilitator” at MAPR. Many of our best sellers come from our partnership with AHF and “stocking up” on these items was determined to be prudent by the board, and seconded by you, our membership. In addition, the AHF has agreed to transfer \$7,000 dollars to the BRMA that it held from the Warriner family, given for the sole purpose of painting the trains out at B Reactor. This, plus additional pledged monies, will hopefully make the painting a reality in 2020 or 2021.

From what I hear, the B Reactor and the Pre-Manhattan Project tours are mostly well-attended, which is reflected in our souvenir sales. I myself am returning in July as a Pre-Manhattan Project docent and couldn't be more excited to get out there and talk about the history. If you haven't been on either of the tours lately I encourage you to go – it'd be good to make connections with the docents and I think you would enjoy seeing the fascination of those who are taking their first visit out to the reactor. It's truly something special. There are lots of exciting events happening this fall, mostly in September to mark the 75th anniversary of the B Reactor startup. Atomic Frontier Days is coming back (see article on page 3)

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The B Reactor Museum Assn. meets on the 2nd Monday of each month at 7 p.m. in a Conference Room at the Richland Public Library, 955 Northgate Dr., Richland. The next meeting is Monday, July 8



HAPPY FOURTH FROM THE BRMA

Charitable Contributions

This is a Public Acknowledgement of the generous cash contributions to BRMA. The following list covers the period, April through June, 2019.

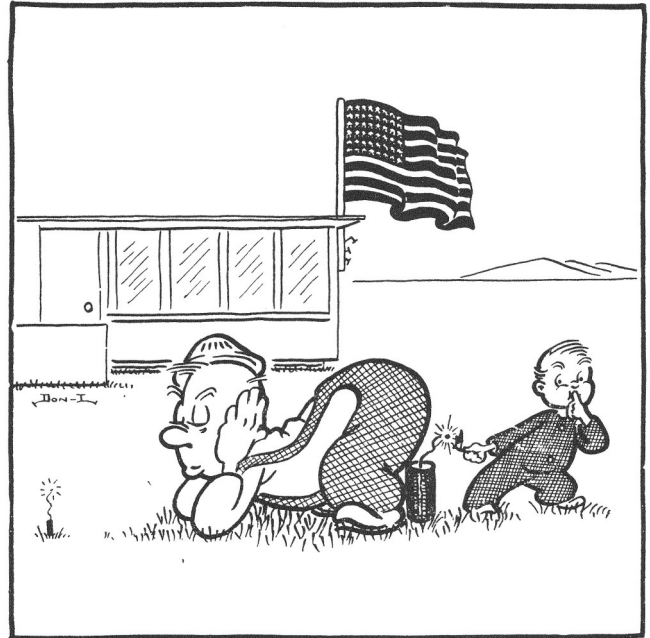
Bob Horgos

Membership Report

By Burt Pierard, Membership Committee

.2019 BRMA MEMBERSHIP DUES ARE NOW DUE. Our total paid membership is now 60 people (including 9 Life Members) & 3 Groups (Atomic Her-

**Dupus Boomer — by Dick Donnell
Contributed by Connie Estep**



In Memoriam

Donald Baker
Leo Munson

itage Foundation, Hanford History Project & The REACH) . To send in your Renewal, the Form is below to Clip or Print and send in.

2019 Renewal and New Member Application

Name: _____ Date: _____
Address: _____ City: _____ State: _____ Zip: _____
Phone: (h): (____) _____ (cell): (____) _____
E-mail: _____ (Please print legibly)

- Renewal New
- Individual (\$20) or Senior (age 60+ - \$10) or Student (\$10) or Life Member (one time — \$250)
(Individual Members Only)
- Society/Group (\$25) Name of Voting Representative: _____

Additional tax deductible contribution: \$ _____

Note: both Dues and Cash Contributions are Tax Deductable. (Tax ID # 94-3142387)

No goods or services were provided in exchange for your contribution

If your total enclosed contribution is \$50 or less, print a copy of this application for your records. Over \$50 will be separately receipted.

Total Enclosed:\$ _____
(Please make check out to BRMA)

Thank you; please mail this application with payment to:

**B Reactor Museum Association
PO Box 1531
Richland, WA 99352**

ATOMIC FRONTIER DAYS REVISITED

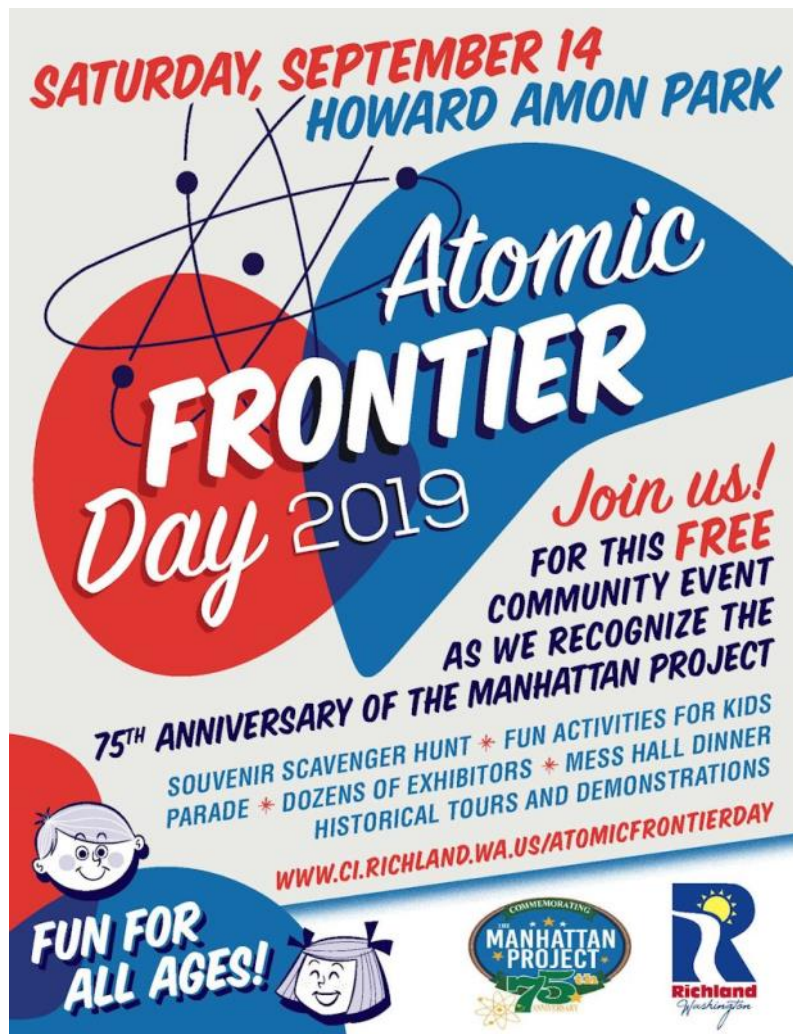
By Jillian Gardner-Andrews, BRMA Communications Director

To celebrate the 75th Anniversary of the Manhattan Project and the startup of B Reactor the City of Richland, along with other community partners, will be hosting Atomic Frontier Day on September 14, 2019. This free community event will be held at Howard Amon Park which will be renamed “Riverside Park” for the day of the event as a throwback to the name of the park during the post Manhattan Project Era. This event will begin with a parade at 11:00am which will travel around John Dam Plaza. The events in “Riverside Park” will begin at 1:00pm where attendees will be encouraged to receive Hanford Site badges and obtain “security clearances” at different booths manned by community groups and representing different assignments that new Hanford Engineer Works employees would require (Housing Assignment, Job Assignment, Radiological Monitoring, etc.).

B Reactor Museum Association will be partnering with the Manhattan Project National Historical Park to man a booth representing the 100 and 200 Areas of the Hanford Site. This joint booth will focus on B Reactor and T Plant with fun activities for both children and adults.

The formal program for the event will include a 1940s fashion show, presentations from Day’s Pay Crew Members descendants, performances by many local groups (including the Academy of Children’s Theater, Richland Players, and Mid-Columbia Mastersingers), and much more all held on the Fingernail Stage. Inside the Richland Community Center will be historic displays of Hanford and Richland memorabilia provided by the Hanford History Project and Don Sorenson and a “Remembrance Room” where attendees will be encouraged to share photographs and stories to be used by the National Park Service for interpretation.

The only ticketed event for the day will be the Mess Hall Dinner which will cost between \$5-\$6. This dinner which will be served buffet style will include 1940s inspired dishes and have wait staff in period specific outfits. The Atomic Frontier Days event will conclude with a swing band performance at the Fingernail Stage beginning at 7:00pm and ending at 9:00pm. All attendees are encouraged to bring their own chairs for the event.



Atomic Heritage Foundation Changes

by John Fox , BRMA Government Relations Director

The Atomic Heritage Foundation was founded in 2002 by Cynthia (Cindy) Kelly, formerly long employed at DOE and EPA. With a Board and advisory group of prominent individuals in the nuclear field, its mission has been to help the public better understand how nuclear science and technology was developed so rapidly in wartime, and how it has broadly impacted our civilization. It has carried this out by a variety of means, including helping preserve key facilities and artifacts of the Manhattan Project, producing video interviews with many involved individuals, co-sponsoring events, creating documents, books and souvenirs, and promoting establishment of the present Manhattan Project National Historical Park. As a not-for-profit charitable foundation, it has sought grants and donations to sustain an office and staff to carry out these functions.

With a number of its objectives achieved, AHF

closed its office at the end of June 2019, and in the future will still perform selected projects as opportunities arise. In particular, its online sale of AHF products is discontinued (see "From the Control Room article" for additional details). The AHF website was recently redesigned and appears more versatile. It will be maintained in the future by the National Museum of Nuclear Science and History in Albuquerque.

Over the years, BRMA has worked with the Atomic Heritage Foundation in obtaining grants to design and build several models of B Reactor and the 100-B Area complex, now displayed in the reactor building, produce several video interviews for the Ranger in Your Pocket segment of the AHF website, as well as in efforts to preserve B Reactor and establish the National Park. Though we expect to undertake more such efforts ourselves, other opportunities for joint projects may appear. The Atomic Heritage Foundation still has an important role to play.

HOW MYSTERIOUS WAS THE "MYSTERIOUS EVENT", REALLY?

By Burt Pierard, BRMA Historian

This article is a condensed version of the 3-Part series run in the Fall 2014 through the Spring 2015 *Moderators* (available on our website, b-reactor.org) examining the Start-up of B Reactor, to correct the mostly anecdotal Historical Record of the Hanford Engineering Works portion of the Manhattan Project. Almost all the historical accounts of the first B Reactor startup on Sep. 26, 1944, describe the ensuing shutdown, re-startup, and shutdown again (all on its own, on approximately 15 hour cycles), as baffling to the scientists and DuPont, the reactor design contractor, a so-called "Mysterious Event." Not only are these accounts totally unsubstantiated by the facts, in actuality the scientists and DuPont had predicted the possibility of such an outcome in September 1943, a full year before the startup.

The most important document is essentially a Memorandum of Understanding between the Government, the University of Chicago, and DuPont concerning the Technical Basis for the Plutonium Production Process at Hanford, dated September 1943. This Memorandum was reprinted, in booklet form, by BRMA in the middle 1990s (available in our Gift Shop). Of particular interest is the memo's

prediction of radioactive by-products and their possible effects on the reactor operation and the solution. "As pile operations proceed there will be an increasing accumulation of ... radioactive by-products in the uranium in the pile. It is known that the by-products may affect the neutron chain reaction adversely. Conceivably, the pile may be 'poisoned' by the by-products so rapidly as to delay or prevent ...or perhaps even to preclude the attainment of a Plutonium concentration sufficient for ... recovery. **To obviate this, it is necessary to provide excess reactivity in the pile** (emphasis added)."

The second document was Dale Babcock's September, 1964 article in the "NUCLEAR NEWS" magazine, titled "The Discovery of Xenon-135 as a Reactor Poison," written on the 20th Anniversary of the Start-up. Babcock was John Wheeler's Supervisor and close associate at DuPont. This article is, in my opinion, probably the most accurate and authoritative account of the discovery of the Fission Product poison and the early work that led to the 1943 reactor re-design. Although Babcock was somewhat limited by Security concerns, he was able to get some De-classifications and "work-arounds" to tell a pretty accurate story.

From Our Gift Shop

By Rick Bond, BRMA Products and Sales

The Manhattan Project National Historical Park 2019 tour season started April 1 so sales have really started to pick up at our gift shop. As a result of having more products to sell, and because the docents and the Logston staff are doing a great job of making our visitors aware of our gift shop, our sales have greatly increased over previous years. As most of you are aware, our gift shop is not located in the visitors center but is located at Whimzeez (2000 Logston Boulevard), just a few doors down from the visitor's center, so it takes a little more effort to make the park visitors aware of the fact that we do have a gift shop and where it is located. Please stop by Whimzeez and say hello to Debbie, and pick up a few national park/B Reactor related items, even if you are not going on a tour.

A few of the new items that we just recently started to carry in the gift shop are a lapel pin of the B Reactor (cut in the shape of the B Reactor) and two stickers, one of the B Reactor and one of the BRMA logo. They look really great (see photos below)! Both the lapel pin and the stickers have been selling very well.

We just recently received a new batch of caps and tee shirts as we sold out of most all of our existing supply. The caps come in five different colors and the tee shirts come in two colors (see photos below). They look great - come on in and check them out!

We have also sold out of four of the books that we had been selling in the gift shop and are in the process of ordering replacements. They will be back in stock soon. These books not only tell the fascinating story of the Manhattan Project and the B Reactor, but also tell many related human interest stories. They make great gifts.

The park was open all three days of the Memorial Day weekend. The gift shop was also open all three days and sales were very good. Thanks so much to Debbie Burnet, who owns and operates our gift shop, for being there over the holiday!! And thanks to all who support our gift shop. Remember that all proceeds go towards supporting our component of the Manhattan Project National Historical Park.



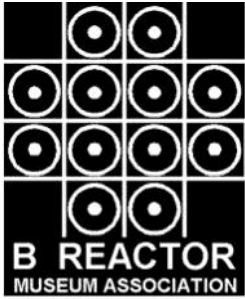
Stickers & Lapel Pin



New Caps & Tees

FROM THE CONTROL ROOM *Continued from page 1*

and BRMA is playing an important role in that event with a booth and activities dedicated to the T Plant. The Hanford History Project is putting together an exhibit on “People of the Manhattan Project”, focused on the history of Richland during WWII and the early Cold War. And there is more: a full listing of events can be found at hanford75.com, so please check it out and fill up your calendar!



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