



From The Control Room

by Maynard Plahuta, BRMA President

Members of the B Reactor Museum Association (BRMA) look forward to 2014 with optimism while enjoying the accomplishments made in 2013. BRMA is pleased with the 2013 accomplishments--some of which are highlighted below.

A significant disappointment however, was that we did not achieve our major 2013 goal to have the U.S. Congress pass legislation to authorize creation of the Manhattan Project National Historical Park. Up until the last hour it appeared the proposed legislation would be passed. But even though it had bipartisan support in both the House and Senate, the proposed authorization was not included as an amendment to the Defense Authorization Act as anticipated.

The Congressional delegations from all three sites (those included in the proposed legislation--Hanford, Oak Ridge, and Los Alamos) have stated they are dedicated to authorize the Park during the next congressional session. Thus, we will continue our efforts along with our friends at the other two sites to achieve this common goal.

Two 2013 accomplishments come immediately to mind—neither more significant than the other. The August 24th dedication ceremony in memory of Colonel Franklin T. Matthias was a huge success thanks primarily to the efforts of Karen Miles, who initiated the event. BRMA was one of the key sponsors and advisors for the ceremony. A number of other community contributors to the ceremony joined to make the event truly memorable.

Colonel Matthias was the Army Corps of Engineers' "man in charge" for the construction of the Manhattan Project facilities at Hanford. The dedication ceremony included the placement of a sculpture of the Colonel on a nicely landscaped area created on the Richland library grounds for the event. It was great to have eight of the

Colonel's immediate family in attendance, including his son and grandson. Speaking with family members during the luncheon at the B Reactor project office, as well as on the tour of B Reactor, was very rewarding for both the family members and BRMA members in attendance. Members of the family were very appreciative of the dedication. They said after touring B, and becoming more familiar with the entire Hanford project, that they more fully understood the tremendous contribution the Colonel made to our nation's history.

The other accomplishment referenced above was the addition of two new models that now are in place at B. I mention these two models primarily for the benefit of our members and friends located outside the Tri-Cities who have not had the opportunity to view them. As mentioned in earlier editions of *The Moderator*, one model is of the 100 B Area, and the other shows graphite components of the reactor core.

The 100 B Area model includes B Reactor and twenty support facilities that were required for B operations. The model is three-dimensional (on a scale of 1 to 450) and is placed on an eight-foot-square platform. Features such as steam and water lines are also identified. The model clearly demonstrates the enormity of many of these facilities---some bigger than the reactor itself. A vignette describing the function of each facility is provided. Pushing appropriate buttons illuminates the flow of water at different stages as it advanced from the river pump house through various facilities, into and out of the reactor, and back to the river.

The other model is a sophisticated recreation of a four-foot-square horizontal section of the reactor core. The graphite is milled to exact dimensions of actual reactor core graphite components. It depicts the channels for process tubes and horizontal and vertical safety rods, and

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The B Reactor Museum Assn. meets on the 2nd Monday of each month at 7 p.m. in the CREHST Museum Auditorium, 95 Lee Blvd., Richland
The next meeting is Monday, January 13, 7 p.m. at CREHST

2014 BRMA Election Results

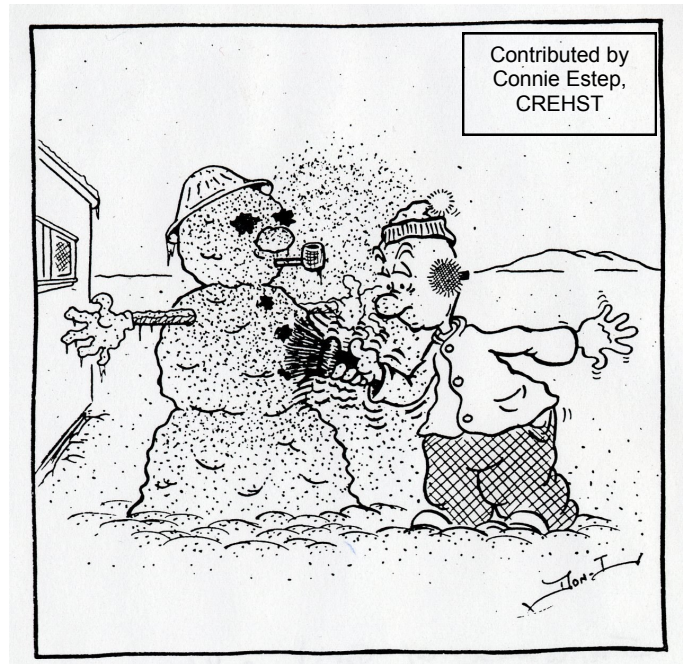
At our last meeting of 2013, on December 9, elections were held for the 2014 officers of the BRMA. The slate of candidates was the one submitted by the nominating committee, in the person of immediate past-President Hank Kosmata. The slate consisted of the four existing officers who had agreed to run for another year. No other potential candidates stepped forward to get on the ballot, and by unanimous vote at the meeting, the four were swept back into office for 2014:

- Maynard Plahuta - President
- C.J. Mitchell - Vice President
- Del Ballard - Treasurer
- Gene Weisskopf - Secretary

Also for 2014, the Committee Chairs will continue to be held by last year's chairpersons:

- Bob Bowersock - Government Relations
- Burt Pierard - Membership, History & Archives
- Del Ballard - Property & Facilities;
- Bob Horgos - Tour Coordinator.
- Richard Romanelli – Editor of *The Moderator*
- Missy Keeney Baker - Associate Editor
- Gary White - Communications
- Webmaster – Jim Stoffels

Dupus Boomer—by Dick Donnell



"Gritty Snowman"

Membership Report By Burt Pierard, Membership Chair

2014 BRMA MEMBERSHIP DUES ARE NOW DUE. Forty-nine people have taken advantage of the 4th Quarter 2013 early renewal period so we have a solid jumpstart for 2014. Anyone who has paid and not received their 2014 Membership Card yet,

should receive it by snail mail soon. To send in your Renewal, the Form is on this page to Clip or Print.

We're pleased to acknowledge the latest generous donors to BRMA. They are listed in the box on page 7. Thank You!

2014 Renewal and New Member Application

Name: _____ Date: _____

Address: _____ City: _____ State: ____ Zip: _____

Phone: (h): (____) _____ (w): (____) _____ MSIN address: _____
(current Hanford employees)

E-mail: _____

- Individual (\$20) or Senior (age 65+) or Student (\$10) and New or Renewal
- Organization (\$25 up to 100 members; please add \$10 for each additional 100 members)

For Organization Membership, Official Representative: _____

Additional tax deductible contribution: \$ _____ Total Enclosed: \$ _____
(Tax ID # 94-3142387) (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

From the Control Room (cont'd)

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includes such details as the weep holes. This model also uses a vignette and lighted points to identify key features. The graphite used for the model is graphite remaining from the construction of B Reactor. BRMA thanks DOE for granting us the graphite.

BRMA members Hank Kosmata and Del Ballard were key contributors for the 100 B Area model. Gene Woodruff was the expert designer of the graphite model. Also, thanks go to Cindy Kelly from the Atomic Heritage Foundation for all her help toward accomplishing both models. The Lockheed model makers are commended for their excellent construction of the models---a first-class job with precise detail and workmanship.

BRMA also associated with a business in the Logston Bldg. near B Reactor tour headquarters in 2013 to set up a gift shop at which tour participants and other visitors can purchase souvenirs and publications of B Reactor. One of the hottest souvenir sellers is graphite dust resulting from milling the graphite model. The dust is placed in small see-through vials. Gene Woodruff gets credit for this idea.

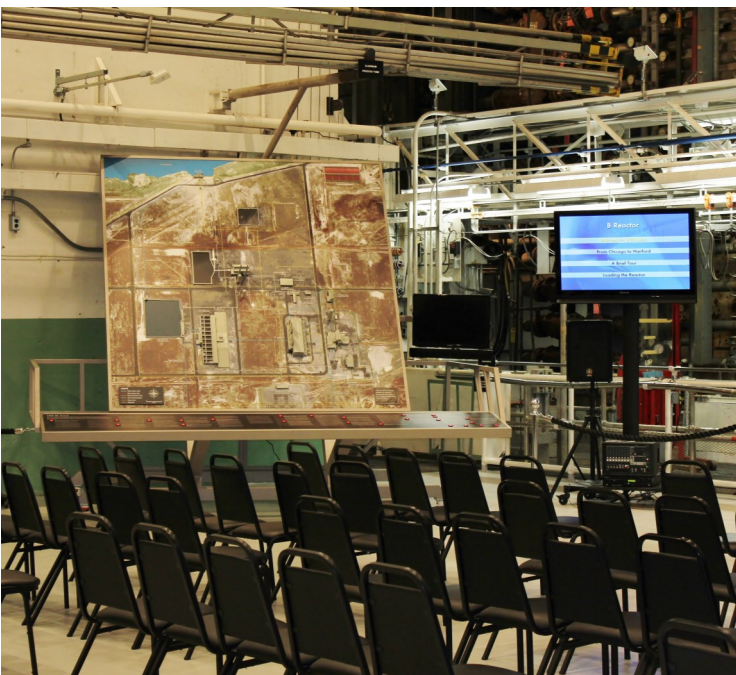
In March 2013, BRMA joined with 10 other local organizations to form the Hanford History Partnership (HHP). The HHP's primary purpose is to preserve the unique history of the Tri-Cities as it relates to the Hanford site back to 1907, well before the Manhattan project of World War II. Washington State University Tri-Cities is coordinating this effort. Rather than go into

any further detail I encourage all to use the web to obtain more information. You can either Google Hanford History Partnership or use the HHP web site at www.ourhanfordhistory.org and the "Our Hanford History" Facebook page. I'm impressed by the tremendous progress being made under the direction of Michael Mays and Sharon Holden at the university.

I wish to acknowledge a contribution a friend of mine, and of many others, made to recognize Hanford and B Reactor workers. In retirement, former Richland city council member Clark Crouch is a well known western & cowboy poet with nine books in international distribution. He has written a poem pertaining to Hanford and B Reactor workers entitled "Hanford: a tribute to those who served". Clark, we extend our thanks. The poem is printed elsewhere in this *Moderator* edition.

I conclude by thanking all BRMA members for their continued support during 2013. I encourage all to help recruit new members. I particularly thank all BRMA officers and committee chairs for their support this past year.

I'm hoping that issues like the national debt, off-year elections, budgetary matters, and other issues do not interfere, as in past years, to derail Congressional authorization of the Manhattan Project National Historical Park. I'm cautiously confident that we will succeed in 2014. That certainly will make 2014 a winner. Happy New Year!



100-B Area site model



B Reactor graphite model

Midway Substation—The “Oasis in the Desert”

by Burt Pierard, BRMA Historian

The existence of the Bonneville Power Administration’s (BPA) Midway Substation, just west of the Vernita Settlement, was one of the prime criteria that led to Lt. Col. Matthias’ recommendation of the desirability of the Hanford Site. The story of the Substation is an interesting tale in itself.

The BPA was formed in 1937 to settle a “turf war”

between the U.S. Army Corps of Engineers (builders of Bonneville Dam) and the Bureau of Reclamation

(builders of Grand Coulee Dam) over the transmission and marketing of the power generated by both plants.

From the outset, BPA Planners designed a twin-230 KV circular “Master Grid” between the two generating plants. Building long transmission lines between generators

is a bit more complicated than just connecting them. Excessive voltage drop

along the long lines renders it impossible to keep the generators “in synchronism” (running at the same electrical frequency). The solution to the problem is to install Voltage Boosting & Regulating Equipment at substations in vital locations throughout the Grid; half-way between the plants is the most effective. The planners looked at the map of the southern loop and determined that the halfway point was just west of Vernita, so there the Midway Substation was spawned.

The easy “map solution siting decision” led to another formidable problem to the construction of Midway. Namely, where to locate Construction workers, Substation operators, and Maintenance personnel where there is no discernible civilization or reliable roads within commuting distance. BPA’s solution was building a small community adjacent to the site. In

July 1942, this community consisted of 7 family-style cottages, a dormitory for single workers, a fire house, post office, and even a school. The community was well-watered and landscaped, thus giving the substation the look of an oasis amidst the surrounding desert. This “oasis” is what Matthias spotted from the air in his December 1942 flyover.



Midway Substation circa late Summer 1942, looking NW. Cottages are in the foreground, and the cluster right of center is presumably the dorm, Post Office, school, etc.

In addition to Midway’s role on the 230 KV lines, it also served as a distribution point for 2 – 115 KV lines. One went south to the Yakima Valley and northern Oregon (more on this line’s effect on the HEW Project in the next *Moderator*). The other went SE across the future Project area to Walla Walla with a 115/66 KV tap at Pasco which ran

to a substation in old Hanford. DuPont used this substation for project

construction power. In 1944, BPA built a 230 KV loop feeder from Midway through the 100 and 200 Areas for permanent operating power. BPA personnel referred to this electrical power as the “mystery load” because of the secrecy surrounding its ultimate use.

* * * *

Details of this article were derived from EWU Professor Craig Holsteins “Construction of the ‘Master Grid,’ 1939-1945” and DuPont’s Final Construction Report.

See the next *Moderator* for “The True Story of the Japanese Balloon Bombs and The HEW” (SPOILER ALERT: Essentially all the History Books are wrong).



Hanford Reach Interpretive Center Update

By Lisa Toomey, CEO

On January 1, 2014, the REACH six-month countdown to opening began!

Work continues on the building itself, with REACH staff planning to move in March. Tours of the facility are available by reservation-only Monday-Thursday at 3:30 p.m. and 4 p.m. Please call 943-4100 to schedule a walkthrough with REACH project manager John Koberg.

Staff at both the REACH and CREHST are working on the completion of the deaccessioning process for the CREHST collection and the transition of collection materials to the REACH, BRMA, City of Richland, DOE, Richland Library, local museums and other organizations. These items will be available to the REACH for use in future exhibits. All items will be moved beginning February 1 immediately following the closure of the CREHST Museum. In addition to deaccessioning activities, CREHST staff will begin actively working on the transition and integration of staff, programs and physical assets. The ESTF plans to officially dissolve the nonprofit at the February meeting.

In the coming months REACH and CREHST staff will be building on the volunteer program developed at CREHST to create a crew of trained volunteer interpreters for the REACH. All staff, board and volunteers will undergo training in interpretation through the National Park Service May 8 and 9. Anyone interested in becoming a

volunteer at the REACH can contact Teresa Shively at admin1@crehst.org. In addition to interpreter training, staff, board members and volunteers will be training in customer service, listening skills and conflict resolution.

Final design work is under way for REACH exhibits, and fabrication begins this month with installation starting in April and May. Exhibits planned for the REACH both inside and outside include:

Indoors

- Gallery I - REACH Story Through Time: The Land Takes Form, The Living Land, The Land Transformed, Saving the Reach, USFWS,
- Main Hall - Aquarium Exhibit-Columbia River Aquatic Life, Bechtel,
- Main Hall - Science & Technology/Digital Planet, Battelle,
- Gallery II - Manhattan Project Exhibit, Allen Brecke, Craig & Marilee Eerkes, Anonymous Donor, CREHST Members and Others,
- DVD Viewing Room - Hydro Power Then and Now, Bonneville Power Administration,
- WPA/Grand Coulee Dam, Washington State Historical Society, DVD Viewing Room
- Halls/Public Areas - River Quilt Panels, White Bluffs Quilt Museum,
- Halls/Public Areas/Offices - Artists in Residence Program

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REACH Interpretive Center (cont'd)

Outdoors

- Animals of the Reach Metal Sculptures-outdoor interpretive exhibit, WRPS
- Sun Solar Stage (and Amphitheater), Columbia Center Rotary Charity
- Center Pivot/Irrigated Agriculture Exhibit, Valley Irrigation
- **Exhibits in Process (Unfunded)**
 - Outdoor Sculpture Garden
 - Native Animal Exhibits
 - Environment/Conservation/Sustainable Living Exhibit Indoors
 - Native Plants/Ecosystems Exhibit Outdoors.

As we ring in the new year, staff at the REACH and CREHST are ramping up for a "soft opening" in June and the Grand Opening of the REACH July 1-6, 2014.

June 2014 (soft opening of the REACH)

- ✦ non-advertised operations
- ✦ "sneak peak" tours for donors
 - The Passing of the Mantle: CREHST to REACH event, Saturday, June 28, (special event for ESTF Board, CREHST members, volunteers, docents)

July 2014 (Grand Opening of the REACH)

- July 1: PreK-5 Environmental Education Day with children from YMCA (composting and making recycled paper) inside the facility and around the grounds

- July 2: Middle School children from 4H will participate in a Geocaching Event outside and Overnight "Camp In" inside
- July 3: Area high school students will be invited to perform in the "Battle of the Bands" in the Columbia Center Rotary Charity Amphitheater (500-seat) from 12 p.m. to 5 p.m.
- July 4: Family Free Admission Day with food vendors/BBQ and opening of "The Sound of Music" by MCMT in the Columbia Center Rotary Charity Amphitheater
- July 5: Official Dedication and Black-Tie Grand Opening Ceremony w/ performance by Mid-Columbia Ballet in Columbia Center Rotary Amphitheater (PM)
- July 6: Matinee performance of "The Sound of Music" in the Columbia Center Rotary Charity Amphitheater and REACH Family Dinner Night (after opening moving to Thursday night)
- July 7: Closed
- July 8: REACH regular operating hours 9 a.m.-5 p.m. (extended hours on request for special events)

July 9: And continuing every Wednesday through the end of September, the REACH will begin the "Dog Days of Summer Festival" with summer evening programming from 5-9 p.m. featuring entertainment/food/beverages and showcasing a different dog breed each week (all dogs will be welcome).

Hanford: A Tribute To Those Who Served

Former Richland city council member Clark Crouch is a well-known western & cowboy poet with nine books in international distribution. In a note to BRMA President Maynard Plahuta, he writes: “The other day I was think-

ing of Hanford and of the pride that Hanford workers felt at the contributions they made to end World War II. As a result, I penned the following tribute. “

Printed by permission of Clark Crouch. (Thank you, Clark!)

Monolithic structures
rose from the desert sand,
shrouded in secrecy,
protection for our land.

It was the leading edge
for science of that day.
Responsibly cautious,
they entered war's foray.

They provided a way
to finally end that war,
saving uncounted lives
on that far distant shore.

The fires of hell, some said,
of outcomes not yet seen,
a danger to mankind,
a science said unclean.

To face that distant war.
conflict in far off lands,
they knew they must not lose
they must meet war's demands.

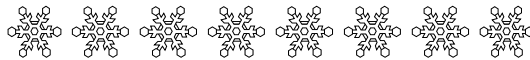
One monolith now stands
on land they helped defend,
remem'bring all who served
in war they'd helped to end.

Yet, many labored there
to build the monoliths,
harvest the elements,
and shatter ancient myths.

Despite their shrouded days,
some suffered from their work,
the price for victory,
but still they did not shirk.

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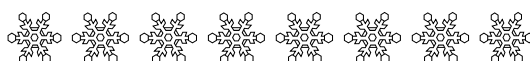
Recent Generous Donors To BRMA

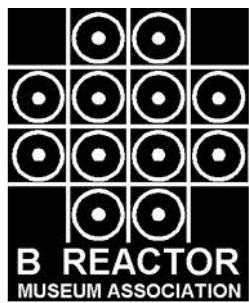


This is a Public
Acknowledgement of
generous cash contributions to
BRMA. The following list
covers the period October
through December, 2013.

Steve Buckingham
William L. Galligan
Bob Horgos
Andy Kelly
Cindy Kelly
C. J. Mitchell
Wanda Munn
Maynard Plahuta
Richard Vivian
Gene Woodruff

Thank You!





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