

This is the third Annual Report produced by BRMA, with hopes of a continuing effort to produce a report annually summarizing the efforts of BRMA for the year. As stated in previous Annual Reports, activities prior to 2022 have been summarized in the Moderator that is published Quarterly., throughout the calendar year, and can be read on the BRMA Webpage.

B Reactor Museum Association (BRMA)



Produced by: The Board of Directors of BRMA

BRMA Annual Report for Calendar Year 2024

March 2025

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BRMA has been invited to participate in several local community activities that support the Manhattan Project National Historical Park (MAPR).

The three entities are: Visit Tri-Cities Board of Directors, the Tri-Cities National Park Committee, and Energy Communities Alliance.

BRMA is very grateful for the invitation to participate in these supporting organizations and the work they do to support BRMA and the MAPR Park.

To Our Membership & Supporters

Strategic Highlights

BRMA Wishes to personally thank all of our members and continued supporters of this amazing organization. During 2024 BRMA as a member of the Energy Communities Alliance Committee working with all energy communities throughout the country, including Hanford, Los Alamos and Oak Ridge and most Department of Energy Sites.

BRMA continues its support on the Visit Tri-Cities planning committee who provide additional support to the Manhattan Project National Historical Park, and the Tri-Cities National Park Committee aimed at supporting activities associated with the Manhattan Project National Historical Park.

Several significant activities were accomplished during 2024 thanks to BRMA's direct and indirect support. BRMA was instrumental in initiating the planning for the celebration of the 80th anniversary of the startup of B Reactor, September 26, 1944. (See additional article later in this annual report). The legacy that has been built by current and former members of the association continues to impact the local community and the other two locations that are part of the National Park.

2024 is the first year for the new President, Dave Marsh. Thanks to Robert Franklin and other Board members it was an easy transition from Robert to Dave since Robert remained on the Board as the Vice President. Dave has been a member of BRMA since 2019 and Treasurer from then until 2024 when he took over as President. At the beginning of 2024, a new member of the association stepped forward to take on the role of Treasurer vacated by Dave and that person is Liza Eschbach. Liza has served faithfully this past year and continues as Treasurer for 2025. Another new member during 2024 was C. Mark Smith who joined the Board in March as the Communications Chair. With deep regret, Mark passed away in November of this past year and BRMA is very sad to lose Mark and his candor, energy and experience from BRMA.

2024 Overview and Summary

2024 brought back some forms of normalcy for BRMA and the tour programs at B Reactor and for the Pre-Manhattan Historical Tour.

It was announced during the 2023 tour season that the project to replace the roof of B Reactor would impact the tour season for 2024 and 2025 at a minimum. Due to delays in the initiation of the B Reactor roof project, the tour season began with month by month posting of available tours for B Reactor. As the season progressed, it became clear that the roof project would not get under way until late fall, so the tour season was opened up for the regular season timing with a planned completion of tours at the end of October. Since the tour program did not get started until late April, additional tours were added for Monday, Tuesday and Wednesday to allow more visitors to participate in tours of B Reactor prior to the roof project commencement.

BRMA's financial future is rosy, especially with arrangements for the sale of merchandise through the **Xenophile Bibliopole** Book Store. Thanks also goes to **The Octopus Garden** in Uptown Richland and to **Visit Tri-Cities** and the **REACH** museum who also provide sales opportunities for BRMA and NPS merchandise. (Please see the Products and Sales report in this Annual Report for details).

Manhattan Project National Historical Park Tour Program (MAPR)

Anne Vargus and Julie O'Neill continue in the roles of Tour Coordinator and Program Technical Representative (respectively), and they are very much appreciated by the tour program and BRMA for the continued work they do in keeping the program running smoothly. It would not be appropriate to discuss the Tour programs without recognizing the work of the staff that maintains B Reactor and the Pre-Manhattan sites. Special thanks to the Management Staff of Lucas Engineering and Management Services for their management of

The tour program was coordinated by Julie O'Neill and Anne Vargus during 2024. They continue to excel in the positions they occupy and BRMA is very grateful for the support provided to our organization by both of them.

BRMA continues as the outlet for BRMA and National Park Service souvenir sales with profits provided to the National Park Service for projects and activities in support of the park.

the facilities and the tour docents. Additionally the folks that keep the facilities open and ready for tours, (Patrick Jaynes, Keith Maki, Jon Lucas, Nathan Woods, and Ruben Palomarez) deserve a tremendous amount of credit for their efforts, positive attitudes and support to BRMA and the tour program, without them the tour program would not be what it is today.

Financial Statements

Statement of Financial Position

- BRMA is a 501.c.3 organization founded in 1990 with the goal of supporting protection and preservation of the B Reactor and other Manhattan Project sites at Hanford.
- BRMA does not have any liabilities outside of maintaining storage for the merchandise that is sold through several local outlets.
- BRMA is in good standing with respect to financial status. BRMA plans to provide additional support during 2024 to the tour program, The National Park Service and to B Reactor.

Statement of Comprehensive Income (Profits and Losses)

- BRMA's expenses involve the costs of storage of our merchandise, replenishment of souvenirs and sale articles, and normal office/business expenses. Please refer to the Products and Sales report later in this report for specific sales information.

Statement of Changes in Equity

- BRMA's equity consists primarily of the merchandise/souvenirs and the intellectual property held by its membership. BRMA also has small investments in Certificates of Deposit at local banks, which have been set aside for support for the B Reactor and NPS.

Who We Are

BRMA is comprised of volunteers who truly have a heart for the Manhattan Project National Historical Park and specifically the Hanford leg of that park. Below is a brief biography of each of our current Board members. This is provided in order that you might get a feel for who we really are and where we come from, with the hope that this might entice more members to get involved in the workings of BRMA.

BRMA Board Of Directors Short Biography Summaries

President Dave Marsh

Dave is a native of Richland, graduating from Columbia High School (now Richland High School) and attending Columbia Basin Junior College and Central Washington State University. Dave Marsh is a retired Hanford employee with over 50 years of Hanford experience in several different arenas. His career started in 1974 working in the Health Physics program as a Radiation Monitor. After completing his BA Degree, he served as manager in many different organizations including Radiological Engineering, Decontamination and Decommissioning, Corrective Action Management and Emergency Preparedness where he directed the Hanford Site Emergency Preparedness Program.

Dave retired in 2004 and began working part-time as a trainer at the Hanford Training Center teaching Radiation Worker Safety, Root Cause Analysis and Corrective Action Management for 11 years. In 2014 Dave began working as a Docent for the Hanford B Reactor, and the Hanford Pre-Manhattan Historical tours as well as the Hanford Site Cleanup tours and continues in those roles today.

Dave spends his leisure time in his wood shop, traveling, spending time with kids and grandkids and great grand kids, quiet time with his wife of 44 years, and serving in his local church, and fishing.

*Who We Are
BRMA consists
of many long-
time members
(1990 to
present) who
have and
continue to
volunteer their
time and
money and
energy to
support the
long-term
development
of the MAPR
Park and the
associated
facilities and
history.*

Dave began his membership in BRMA as the Association Treasurer in 2019 and in 2024 became the BRMA President.

Vice President Robert Franklin

Robert Franklin is a public and academic historian who focuses on 20th Century US and World History broadly, the history of the Hanford Site specifically, with an additional background in archival science, historic preservation, and historic interpretation.

Since 2015 he has served as the archivist and collections manager for the Hanford Collection, an artifact and archive collection preserving the history of plutonium production at the Hanford Site and managed by Washington State University Tri-Cities for the Department of Energy.

Robert has co-authored and co-edited two books in the *Hanford Histories* series for WSU Press. He is also an expert historical tour guide of the Hanford Site and a past president and current vice president of the B Reactor Museum Association, a non-profit organization that supports the operation and interpretation of the Manhattan Project National Historical Park. Robert's current research projects include creating digital assets for the Manhattan Project National Historical Park and planning a series of podcasts highlighting the under-told narratives of the Manhattan Project at Hanford. Robert is also currently pursuing a PhD in History at Washington State University.

Secretary Charles Davis

Charles has served as the BRMA Secretary since 2019. Charles also serves on the Kadlec Hospital Auxiliary as the current Secretary for that organization.

Treasurer Liza Eschbach

Liza Eschbach was raised in Richland and studied engineering at Washington State University. Her career in engineering included work at the Hanford site as well as other positions across the country. Liza recently became involved with BRMA after accompanying siblings on tours of the B Reactor. Liza has served as the association Treasurer for the past year and continues in that role into 2025.

Government/Community Relations Maynard Plahuta/David Reeploeg

David Reeploeg serves as Vice President for Federal Programs of the Tri-City Development Council (TRIDEC) and Executive Director of Hanford Communities.

Before assuming these duties, David spent over 12 years working for members of the Washington state congressional delegation, primarily in the offices of U.S. Senators Maria Cantwell and Patty Murray.

David is a native of the Tri-Cities, WA, and is a graduate of Hanford High School and the University of Washington.

Government/Community Relations Maynard Plahuta

Maynard has served faithfully for many years in various roles within the association. During 2024, Maynard announced that he was retiring from the association board of directors. As such he was elected to a new position of Member Emeritus for his many years of service. We are very grateful for Maynard's contributions and leadership over the past years. He will be missed as an active member of the board.

Historian Burt Pierard

Burt is a 1959 graduate of Columbia High School (later renamed as Richland High School) in Richland Washington. Burt has served as the Historian and Artifacts chairperson since 2004 and briefly served as the Membership Chairperson as well. Burt also produces the BRMA quarterly report known as the MODERATOR. Burt has contributed many historical articles over the years and continues as a very active member of the association board.

Products and Sales Rick Bond

Rick Bond is a retired hydrologist/environmental scientist whose career primarily focused on the remediation of hazardous waste sites. He was born in California, grew up on Long Island, New York, and has lived in Richland, WA since 1977. After graduating from Hobart College in 1971 with a degree in mathematics, he served four years in the U.S. Air Force as a missile launch control officer in Tucson, AZ – he held the key to launch a Titan II nuclear-

tipped intercontinental ballistic missile. After the Air Force he completed a master's degree in Hydrology at the University of Arizona. Following graduate school, he accepted a position with Battelle Pacific Northwest Laboratory where he developed and applied groundwater flow and contaminant transport computer models to design remediation systems for hazardous waste sites. In 1985 Rick and several colleagues from Battelle joined ICF Kaiser Engineers so they could focus more on the hands-on aspects of waste site remediation rather than the theoretical/research aspects. During his 14 years with Kaiser Rick, served as project manager for several waste remediation projects for large corporations, primarily in California. In 1999, Rick joined the Washington State Department of Ecology where he served as Transition Project Manager for Hanford Site cleanup. At Ecology he also provided regulatory oversight for all private companies in Washington State that generate nuclear waste. Rick retired in 2015 and joined BRMA in 2016. With BRMA Rick manages the gift shop for the Manhattan Project National Historical Park (MAPR), Hanford B Reactor. Rick also serves as a docent for MAPR and as a volunteer for the National Park Service Richland unit. Rick spends his fun time boating and jet skiing on the Columbia River, biking, DJing, traveling/cruising, and spending quality time with his wife, his kids and with his two grandsons and identical twin granddaughters.

Communications Mark Smith

We regret that we did not have Mark as a member of the BRMA Board very long. He joined the board in March of 2024 and sadly passed away in November of this past year. Mark will be missed greatly by our board members and BRMA members because of his "Can-Do" attitude and wealth of knowledge and experience in the communications fields. Please see the memorial story for C. Mark Smith later in this report.

Interpretive Projects Ben Johnson

Ben Johnson retired from the Pacific Northwest National Laboratory where he led interdisciplinary research programs in energy science, nuclear reactor safety and nuclear waste disposal, among others.

Earlier in his career he was for about 25 years involved with the earlier Graduate Center as an adjunct professor, and for a time before the days of full-time staff, the local coordinator of the chemical engineering program and member of the Advisory Board to the center, focused on instituting a totally on-site graduate program in Chemical Engineering.

In retirement, as a tour guide at the B-reactor, he became interested in the history of the Manhattan Project at Hanford and its inclusion in the new Manhattan Project National Historical Park and the rather-overlooked recognition of its great impact on the engineering development of nuclear power.

Other major interests in retirement have included getting refamiliarized with his younger days in India, as a child of missionary parents, by volunteering, with his wife Mary, at a school in the mountains of South India, formerly for children of missionaries, and now well considered nationally as the Kodaikanal International School, where he taught physics and math for a time and produced a "coffee table" book for the school's Centenary.

Membership Bob Carosino

Robert Carosino is a 1971 graduate of the University of Washington, Foster School of Business Administration. He graduated from the University of Washington School of Law in 1974, earning membership in the Order of the Coif. In September of 1974 he began his career at Hanford as an attorney for the Atomic Energy Commission. He subsequently became Assistant Chief Counsel, focusing upon environmental and contract law. In May 2008 he became Chief Counsel for both the Richland Operations Office and Office of River Protection of the Department of Energy (DOE) at Hanford. He retired in 2016, after almost 42 years of service to DOE and its predecessor agencies at Hanford.

During his career, Mr. Carosino also served as an Adjunct Lecturer at the Washington State University Tri-Cities campus, teaching Environmental Law and National Environmental Policy Act classes.

After his retirement he continued to be active in the activities of his parish church where he served on the Parish Council and as a Lector. He was the Lector Coordinator at the parish for over 30 years.

He also attended classes in Enology and Viticulture at WSU Tri-Cities Wine Center and has grown Bordeaux variety grapes and made estate wines. He has been a supporter of the B Reactor and Manhattan Project Historical National Park, serving as a BRMA Board of Directors member, and as a docent for the B Reactor tours.

As a current resident of Franklin County, he has been involved in efforts to maintain the agricultural heritage of the County, and to encourage responsible development of the Pasco area with appropriate development of parklands and opportunities for residents to access the Franklin County shoreline along the Columbia River, as farmlands are converted to residential and commercial use.

Del Ballard Founder Emeritus

Del Ballard is a retired Civil Engineer having spent his 42-year engineering and management career at the Hanford site, beginning in 1951 with General Electric Co. Since his retirement in 1993 Del has dedicated his life to community service, and as a history buff of the Hanford site and the Manhattan Project. Del helped with the founding of the B Reactor Museum Association (BRMA) in 1990, and has continuously served on the board, including as secretary 5 yrs., president 2 yrs., and treasurer 15 years. He served as a tour guide and diligently supported the preservation of the B Reactor. Community service including 20 years of volunteering with Habitat for Humanity building houses, and as an active member of the Richland Kiwanis Club. Professionally Del served as project engineer on numerous projects and facilities around Hanford site, including the Critical Mass Lab. in 200 East Area, the High Temperature Lattice Test Reactor in 300 Area, and test loops for the Engineering Test Reactor in Idaho Falls, and other laboratory and research projects in various Hanford site areas. He managed two different engineering groups: the Hydraulic Core Mockup, developing design

configurations for the Fast Flux Test Facility, and an operations group for startup of the FMEF (Fuels & Materials Exam Facility). Del is a graduate of Montana State College (now MSU), with a BS in Civil Engineering. He obtained his professional license in both Civil and Mechanical Engineering, is a Life Member of the American Society of Civil Engineers and has taken several graduate courses from WSU-TC and its predecessors. Del is proud of his established scholarship endowment funds at both MSU and WSU-TC.

Committee Status Reports

President's Update

This is the third Annual Report prepared for BRMA. The intent of this report and last 2 years' report and future reports is to record progress and accomplishments of BRMA.

Current President: Dave Marsh

2024 was an amazing year for me as the new President of BMRA. After serving several years as Treasurer, I accepted the nomination for the role of President and have been blessed to serve in that role over the past 12 months. The year started off a bit rough with the announcement that tours would not be conducted at B Reactor due to the modification tasks of a new roof and other facets of the project being initiated in the spring of 2024. As it turned out, the project was delayed until later in the year and tours began in early May and continued through the summer and ended in October.

Even with the delay in the start of the B Reactor tour program for 2024, the attendance was the highest since formal tours began in 2009. (Please see the tour attendance report later in the report).

One of the goals this past year for me was to make our public meetings more meaningful and interesting for the association membership. As a result of that desire, BRMA attempted to schedule a guest speaker for each of the monthly meetings to be held at the Richland Public Library. Thanks to Terri Andre and her magic with Facebook and her many connections with other associations in the Tri-Cities, we were able to publicly announce each of the meeting topics and extend the invitation to others that might be interested in attending the presentations. As a result, we were able to schedule presentations for 5 months of the year with very good attendance at each of the presentations. Please see the 2024 Public Meeting Overview on page 27 of this report. As a result of the attendance and popularity of the presentations in 2024, we look forward to 2025 and hope to again schedule special presentations for our membership.

I continued attendance at the Tri-Cities National Park Committee meetings, the Visit Tri-Cities Board meetings and contact with Energy Communities Alliance members. All three of these entities work closely with the Department of Energy and the National Park Service in support of the Manhattan Project National Historical Park (MAPR) and the tour programs. Through the Tri-Cities National Park Committee, BRMA was able to initiate a project working with Benton County and the Washington State Department of Transportation to fabricate and install “Way Finding” signs for the MAPR visitor Center. Thanks to Adam Fyall of Benton County, planning for this activity was initiated in the fall of 2024 but had not been completed by the end of the calendar year. BRMA will continue to pursue the completion of this project to provide better signage for guests arriving at the Visitor Center for tours.

As a result of this action by BRMA, funding that had been donated to the MAPR program about 8 years ago, was able to be used by the NPS to develop a number of Podcasts on “Under Told” stories associated with the Manhattan Project history. These podcasts will be developed during 2025 with a contract between the NPS and the Hanford History Project and Washington State University Tri-Cities.

BRMA also presented a proposal to install “One Way” photo murals on the interior of the windows at the White Bluffs Bank that would provide visitors with a view of what White Bluffs townsite looked like in the mid to late 1930’s as a guest would look through the windows toward the outside of the Bank. This proposal was made late in 2024 and hopefully will be completed in 2025 to enhance the visitors’ experience at the bank on the Pre-Manhattan Tours.

As we look forward to 2025, I am again honored to serve this amazing association and the volunteers that make up our Board and membership. Thank you for the opportunity to serve in this role. Sincerely, Dave Marsh

The updates provided here summarize the activities undertaken by BRMA over the past year as we look back on 2024, but also as we look forward to the future.

BRMA has been very successful in its original goals to preserve the B Reactor and now we look forward to supporting the NPS as they continue to tell the story of the Manhattan Project and its history and impact on the Tri-Cities, the state of Washington and our nation.

Vice President's Update

Current Vice President: Robert Franklin

Robert previously served as the President of BRMA from 2019 to 2023 when he stepped down and accepted the position of Vice President to help Dave, in his role as the new president. Robert sat in for Dave during the spring when Dave was away on travel, which was very much appreciated. During 2024 Robert also made major strides in the review, editing and completion for submittal to the responsible contractor, and the Department of Energy the T-Plant Historical American Engineering Record (HAER). This document was initially a task accepted by BRMA in the early 2000s by then President Gene Weiskopf. Robert incorporated comments which had been received by BRMA previously and with a funding contract from Lucas Engineering, this task was completed and the final draft of the document submitted to Lucas, then forwarded to CPCCo and following their approval was submitted to DOE for final approval prior to being sent to the National Park Service (NPS) for approval and publication. The HAER document is one of the initial steps in the designation of historical structures as a designated Historical Landmark. Once this document is published by the NPS, T-Plant will be eligible for designation as an Historical Landmark facility and preserved for formal inclusion in the MAPR national park.

Robert wears many hats, not just as a board member of BRMA, a Docent for the B Reactor and Pre-Manhattan Tours, and as a curator for the Hanford History Project, , and History Professor at Washington State University, Tri-Cities, as well as an accomplished author of two books on Manhattan Project history. In the last two roles Robert continues as a Subject Matter Expert on Manhattan Project history as well as Pre-Manhattan history. His input has been very valuable in the preparation and continued improvement of the narratives for both the B Reactor and the Pre-Manhattan tour programs.

BRMA is very grateful for Robert's expertise and support of current and future directions for BRMA.

Secretary Report

Current Secretary: Charles Davis

Charles has served faithfully since 2019 as the BRMA Secretary providing meeting minutes for both the BRMA Board Meetings and the Public Meetings held each month. BRMA is very grateful for his continued participation and excellence in his role as BRMA Secretary.

Government and Community Relations Report

Current Board Member: David Reeploeg

Maynard has served in many roles over the years since joining BRMA. Maynard first served on the BRMA Board of Directors in 2007 as the "Tour Coordinator". He since has served as President of BRMA from 2009 to 2016, then served as the National Park Committee chairperson in 2017 and has served as the Government/Community Relations Chair since 2018. Maynard's expertise has been very valuable to the association due to his previous work experience.

Interpretive Projects Report

Current Board Member: Ben Johnson

The past year's activity in the area of Interpretive Projects continues to be the effort of getting the DuPont Story into a referenceable source (journal). We are not there yet. The current editor of the T and C Journal has indicated our submission must be **Revised and Resubmitted** - with a major revision - before it would be accepted. I feel that disappointing status is the result of a blunder on my part. I feel that major revision can largely be accomplished by making use of a revision we had sent to the prior editor of the journal five years ago prior to the change in editorial office, from the University of

Oklahoma to Eindhoven Technical University in the Netherlands. It had to be resubmitted to the new office, who informed us they were not accepting new papers (probably because of the backlog and the onset of Covid). I have written the present editor with an outline of our intended revision to see if this revision would possibly meet the editor's major objections. I have had no response, as of the end of 2024. Respectfully submitted, Ben Johnson

Membership Chair Report

Current Board Member: Bob Carosino

Our end of 2024 paid membership count is 105 Individual Members & 3 Group Members (Xenophile, Bibliopole & Armorer Chronopolis; Atomic Heritage Foundation, and The REACH). These numbers include 28 LIFE members.

Many members and friends contributed gift amounts in addition to their regular dues, which is very much appreciated by our association.

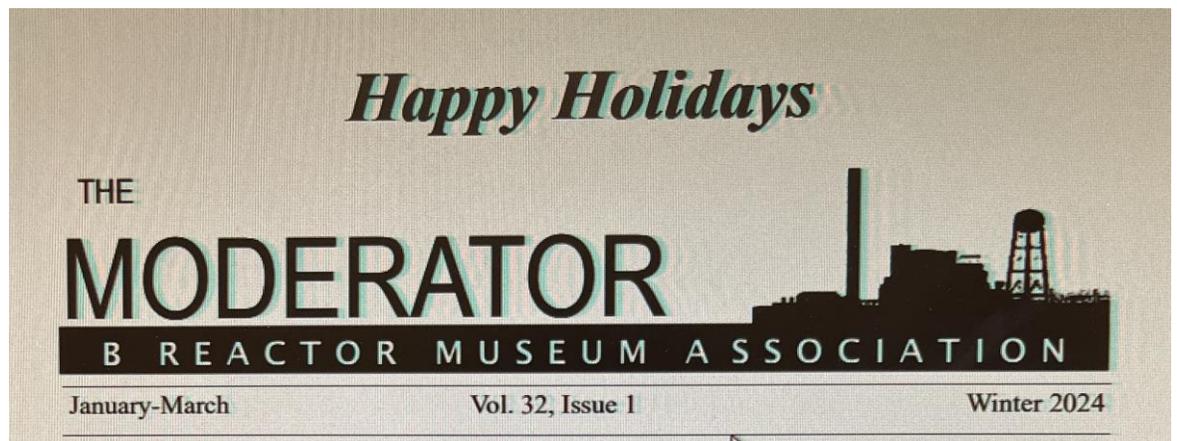
Historian Chair Report

Current Board Member: Burt Pierard

Burt Pierard first became a BRMA Board member in 2004 and served the past 20 years as the Historian/Artifacts/Exhibits chairperson. In 2009, Burt took on a dual role serving both as the Board Historian and as the Membership Chairperson for BRMA. Burt is also the editor/publisher for the quarterly Newsletter called the Moderator, which is published in January (Winter), April (Spring), July (Summer) and October (Fall). Burt's historian role has served the board well. With his research and knowledge, he has written many articles for the Moderator and BRMA is grateful for his continued role as a very active member of the Board of Directors.

***Historian
Burt Pierard
has served in
this role
since 2004
and also
serves as the
Editor and
Publisher of
the quarterly
newsletter
"The
Moderator."***

Rick continues as the coordinator and major player in providing for and stocking our gift shop. The gift shop is provided through our friends at the Xenophile Bookstore located near the current Visitor's Center for the MAPR tour program. Rick has been assisted by a friend who has donated time to help with display setup and design and development of B Reactor jewelry for display and sales.



This is a copy of the header for the Moderator which Burt faithfully produces each quarter to keep our membership informed of BRMA activities.

Products and Sales Report

Current Board Member: Rick Bond

Products and Sales Committee 2024 Annual Report Input by Rick Bond

The Products and Sales committee manages all aspects of the Manhattan Project National Historical Park (MAPR)/B Reactor Museum Association (BRMA) Gift Shop operation to include the development, ordering, and sale of products, tracking items sold, maintaining records of gift shop inventory and sales, collecting and paying sales tax, developing ideas for new products, and negotiating agreements with retail outlets for additional sales opportunities.

Since May 2022 our BRMA/MAPR gift shop has been located at Xenophile Bibliopole & Armorer, Chronopolis (Xenophile Books) located at 2240 Robertson Drive, about two blocks away from the MAPR Visitor's Center. Thus, the gift shop operated out of Xenophile Books all of 2024. Xenophile Books is run by Steve Woolfolk and his business partner Brian Sheldon. They buy, sell, and trade books and collectible items of all types but they also have a strong interest, and a lot of knowledge, about the Manhattan Project and the Hanford area. They have an amazing number of books (over 20,000), games, posters, albums, toys, etc. They have the largest collection of science fiction books west of the Mississippi River. They also have a room/museum

dedicated to the Manhattan Project and the Hanford area with many artifacts, letters, books, etc. Steve is a retired health physicist from the Hanford Site and Brian worked at PNNL and at one time owned a bookstore in the Uptown Shopping Center in Richland. Due to their local ties, Steve and Brian have a very strong interest in supporting our local national park.

Xenophile Books has given BRMA a space in their building to display our gift shop products. They display and sell our products, keep track of sales, collect and pay the state sales tax, and help us to maintain our inventory. They are doing this for a very small fee based on total sales. What they get in return is increased traffic to their shop, and hopefully that will translate into increased sales for them.

We currently sell about 25 different items in the gift shop to include patches, lapel pins, medallions, stickers, magnets, coffee mugs, books, book marks, national park passport books, coffee mugs, water bottles, tote bags, postcards, note cards, posters, graphite dust, shutdown pellets, T shirts, sweat shirts, caps, and B Reactor clocks (made with actual graphite and process tube sections that were made for use in the B Reactor). In 2024 we expanded our products to include the National Park Service 2023 annual stamp set which featured the MAPR.

BRMA currently has an inventory of products valued at about \$20,000 and the cost of these products was about \$10,000. Of this inventory about \$7,000 consists of about 2,000 copies of the book "A Guide to the Manhattan Project in Washington State" and the rest is fairly evenly distributed among all of our other products.

Sales at the gift shop in 2024 were up about 10% from our 2023 sales. Total sales for 2024 were about \$33,000. The total take by BRMA was 95% of total sales or about \$31,350. Profits to BRMA after expenses were about 58% or about \$18,200. Considering that our shop is not in the MAPR Visitor's Center but is located about two blocks away at Xenophile Books, many of our guests did make the extra effort to drive or walk over to the shop.

In addition to our gift shop BRMA also sold our products at The Octopus' Garden (located in Uptown Richland at 1327 George Washington Way), at Visit Tri-Cities (7130 W Grandridge Blvd suite b, Kennewick, WA 99336, and at The Reach museum (located at 1943 Columbia Park Trail, Richland). We sold about \$3,600 at these three locations. These locations do not charge BRMA for their services but are happy to support the local national park. BRMA made a profit of about 30% of these sales or almost \$1,100.

The 2024 total for the year for BRMA was \$35,600 in sales of gift shop items and a profit of about \$21,200.

The Board of Directors are very thankful for the work Liza has done the past year getting her feet wet as the Treasurer and as a voice of counsel regarding some of the financial concerns that go along with being a 501-C.3 Non-Profit organization. She has stepped up in many ways. As the year came to an end, Liza was working to complete administrative changes to the website to ease completion of administrative tasks.

Treasurer's Annual Report

Current Board Member: Liza Eschbach

BRMA ANNUAL FINANCIAL REPORT

1/1/2-24 through 12/31/2024

CHECKING ACCOUNT by CATEGORY

INFLOW

DONATIONS

2024 Donations	\$ 1,190.00	
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TOTAL DONATIONS

\$ 1,190.00

DUES

2024 Dues	\$ 645.00	
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Lifetime Dues	\$ 500.00	
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TOTAL DUES

\$ 1,145.00

SOUVENIR SALES INFLOW

Octopus Garden	\$ 1,442.25	
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Xenophile Bibliopole & Armorer, Chronopolis	\$ 35,607.00	
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REACH Museum	\$ 1,597.50	
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TOTAL SOUVENIR SALES INFLOW

\$ 38,646.75

MISCELLANEOUS INFLOW

Other	\$ 153.13	
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TOTAL MISCELLANEOUS INFLOW

\$ 153.13

TOTAL INFLOWS

\$ 41,134.88

OUTFLOW

SOUVENIR SUPPORT OUTFLOW

Appreciation Gifts	-\$ 569.48	
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Souvenir Re-Supply	-\$ 21,124.64	
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Souvenir Storage	-\$ 845.00	
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TOTAL SOUVENIR SUPPORT OUTFLOW

-\$ 22,539.12

MISCELLANEOUS OUTFLOW

BRMA Website Maintenance	-\$ 963.28	
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P.O. Box 1531	-\$ 232.00	
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Business Expenses	-\$ 98.79	
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TOTAL MISCELLANEOUS OUTFLOW

-\$ 1,294.07

TOTAL OUTFLOWS

-\$ 23,833.19

OVERALL TOTAL

\$ 17,301.69

CHECKING ACCOUNT BALANCE

\$ 65,864.42

INVESTMENT ACCOUNTS

2024 Dividend/Interest	\$ 2,843.10	
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INVESTMENT ACCOUNTS BALANCE

\$ 71,578.19

Communications Annual Report

Due to Mark Smith's passing during 2024, no communications report was provided.

Founder Emeritus Annual Report

Current Board Member: Del Ballard

Del Ballard Founder Emeritus Annual Report 2024

Another pleasant year of attending the BRMA board and general meetings as Founder Emeritus, with no official position, but always ready to offer comments and guidance. I was quite pleased to be asked to speak at the celebration event held at the reactor on October 16, 2024, recognizing the 80th anniversary of the reactor's initial startup. I gave a thumbnail summary of BRMA's work and persuasion over the 25-year period between the times BRMA was organized to the formation of the National Park. I also deeply enjoyed the opportunity to host two family groups (relatives from Colorado and Seattle) on tours of B Reactor during the year.

National Park Report for 2024

From The NPS— Ranger Updates by Becky Burghart, MPHA Hanford Site Manager

Accomplishments

Another year is in the books.

In addition to a busy outreach program in 2023, NPS made big strides on the digital side including finishing the layout of the park website and collaborating with BRMA to develop a B Reactor virtual tour, which is targeted to go live in April. We collaborated with students at Eastern Washington University (EWU) who wrote several articles for the park website. In FY24 we had a total of 73,574 park visitors (across all three units). Visitors include folks who attended DOE tours such as the B Reactor tour to people who attended ranger programs or visited one of our visitor centers. We reached about 9.5 million

BRMA is also grateful for the support provided by the National Park Service through the NPS Hanford Site Manager, Becky Burghart. BRMA has worked very closely with NPS to improve the tour program and enhance the visitor experience. We continue to provide Subject Matter Experts to the NPS as they strive to increase the experiences by the guests on the tours of B Reactor and the Pre-Manhattan sites.

(yes, million) people on social media, and we now have a total of 26,475 followers on social media (Facebook, Instagram, and Twitter). For the NPS app, 382,552 people accessed park content, and we had 631,180 unique visits to the park website in FY24.

During the past year, we worked with EWU staff and students to develop materials about downwinders. We also have several big projects in the works with Washington State University including developing the first podcasts for the park. The podcasts will focus on sharing under-told stories of the Manhattan Project including tribal perspectives and the role of community organizations in the establishment of the park (yeah that is you BRMA). During 2024, we worked to build out the education section of our website to include more lesson plans and to share our most popular hands-on activities like Dice-o-tope. For the hands-on activities, we included directions and files like the 3-D print files of the atomic bomb models to make those resources available to educators (and others). We are currently working with the REACH Museum on an alternate field trip experience.

Our recent big accomplishment, as many of you may know, was publishing the B Reactor and T Plant virtual tours in February. These tours would not have been possible without BRMA's financial support and amazing collaboration on the tour scripts. Dave Marsh and Robert Franklin and Marty Zizzi and Gerry Griffin were integral in development of the content, image selection, and review of the audio description narration. This has been a long journey that started in 2018 when virtual tours were identified as an important tool to provide access to park facilities through a park visitor access planning process. Check out the virtual tours on the park website:

<https://www.nps.gov/mapr/learn/photosmultimedia/virtualtours.htm>.

We also developed panoramic tours as part of this project to provide similar information to the virtual tours but in a format that can be accessed without using a mouse. The virtual tours require the use of a mouse (or finger if viewing tour on a cell phone or other mobile device) to navigate. If one is not able to use a mouse or finger to navigate the virtual tours, then the panoramic

tours are a nice alternative. In the process of developing the panoramic tours, we learned that they were much easier to develop than the virtual tours and provided another unique way to share many of the park facilities. We may (down the road) develop “behind the scenes” panoramic tours of locations in the B Reactor that are not open to the public such as the top of the reactor.

Visit the panoramic tours on this webpage:

<https://www.nps.gov/mapr/learn/photosmultimedia/panoramic-tours.htm>.

Activities/Events

As the warmer days approached, NPS had a busy summer schedule with ranger programs from Pop-Up Playdays with the City of Richland Parks and Recreation to Junior Ranger Park Explorers programs in collaboration with the REACH Museum. We also offered two different guided walks this summer: The first “Not So Secret City” on August 24 and the second “Life in Richland” a walking tour. The latter is a new program we started in May. On August 9, the NPS hosted our annual Lights for Peace at 8:00 pm at the Fingernail Stage in Howard Amon Park in Richland. The program featured music from the Mid-Columbia Mastersingers, a guest speaker, and an opportunity to ring a peace bell. We also displayed luminarias with messages of peace from the public along a path where participants were encouraged to walk for a quiet, contemplative experience. We hosted three Messages of Peace programs: July 18, at the Richland Public Library; July 26 at the Richland Community Center; and August 3 at the REACH Museum. We also invited the public to attend our Lights for Peace event.

MAPR Richland Staff

NPS had two temporary staff working with us during the summer. Drew Gamboa served as the Latino Outreach Intern focusing on developing relationships with our local Latino community and learning more about the role of Latinos in the Manhattan Project at Hanford. Drew is currently a graduate student at Washington State University studying the history of Mexican Americans or the Chicana/o community in the Pacific Northwest. Along with growing up in the Tri-Cities (Kennewick), Hanford and Umatilla have been a

source for one side of his family to move from being migratory farm workers to settling into the region. Drew stated that he is excited to get the chance to meet people that support the Manhattan Project National Historical Park and to support community engagement with Latinx communities of the Columbia Basin. Nicholas Scarborough from Colorado National Monument also worked with the park on a 120-day detail focused on updating the website and working on several design projects for Los Alamos. He worked remotely from his home in Colorado. Here is a bit more about Nicholas: His career path has been working in the outdoors with school-age learners. He moved for seasonal educator work between Tennessee, Indiana, Oregon, Wyoming, and finally settled in Colorado just over eight years ago. He earned his Master of Science Education in 2020 and has been enjoying putting his studies and experience to use as the school programs coordinator for Colorado National Monument. His passions are equity and inclusion in experiential education, and digital accessibility when it comes to the online world. Nicholas is excited and grateful for the opportunity to learn and develop skills and to assist the Manhattan Project NHP with digital assets during 2024!

As with the changing season, there is a lot of change happening in the park. You may have heard that Kalina Hildebrandt, Hanford's amazing ed tech, accepted a new position at the Blue Ridge Parkway in Virginia. This is a great step in her career and a wonderful new adventure. I will certainly miss having Kalina on staff and managing the education and outreach programs. She expanded both programs, creating stronger connections with our community partners and schools. Her last day in the Tri-Cities was early October. I will be working on backfilling Kalina's position. If everything goes well, I hope we will have a new tech ed in place by March/April 2025. Another big change for the park is the change in leadership on the Department of Energy side. Colleen French moved to a new position with the DOE in August and is no longer involved with day-to-day management of the park. Heather Dale, Assistant Manager for River and Plateau, and Andy Wiborg, Acting Deputy Assistant Manager for River and Plateau, are the DOE new points of contact for the park at Hanford. Andy is the principal contact. The NPS is looking forward to closely

collaborating with Heather, Andy, and other DOE colleagues to successfully co-manage the park at Hanford.

Visitors/Outreach in 2024

Our summer programming was very successful. About 95 visitors attended the August 9 event to commemorate the 79th anniversary of the atomic bombings of Japan. About 200 visitors attended three Popup Playdays with the City of Richland and another 200 attended the Junior Ranger Park Explorer programs we hosted in collaboration with the REACH Museum. Between our “Not So Secret City” and “Life in Richland” walking tours, we reached about 100 community members. Drew Gamboa, Latino Outreach Intern, attended the Mariachi Festival and Pasco Farmers Market to connect to our local Latino population. Kalina and Drew collaborated on bringing our Messages of Peace program to youth organizations around the Tri-Cities reaching new audiences with these programs. Drew has done an excellent job researching the role of Latinos in the Manhattan Project at Hanford. He had a temporary exhibit up at the Kennewick Library until October 5. Drew also worked on a bigger exhibit that will be displayed at the REACH Museum later in the fall/ early winter. You can read an article he wrote on this topic:

<https://www.nps.gov/articles/000/latinos-jim-crow1940s-hanford.htm>.

We are busy focusing on our fall programming including Ride with a Ranger on September 28 and Hike Through Time on October 5 as well as the transition with both Kalina and Nicholas. Nicholas wrapped up his temporary detail with the park on September 27. Nicholas was a huge help with organizing the backend of the website, supporting the August commemoration events, and helping Los Alamos with several design projects.

NPS Staffing

The NPS currently has four of our nine permanent positions vacant. Wendy Berhman, the park superintendent, retired on December 28 after a long and celebrated career with the NPS. Charles Beall, Superintendent of Klondike Goldrush NHP in Seattle, will be the park acting superintendent for four

months starting on January 12. Our regional office is moving forward to backfill the superintendent's position.

Approval to fill Kalina's position as a GS-7/9 park ranger position subject to furlough was received yesterday. At the earliest this position will be filled in mid-to late June if hiring freezes are not implemented with the new administration starting in January. If any of the positions that are currently vacant are affected by a hiring freeze, then these positions could be vacant for a significant amount of time. The other park vacancies are the Los Alamos Site Manager and Los Alamos park ranger. We currently have two staff in acting positions at Los Alamos to keep things afloat in the short term.

With the staffing limitations at Hanford, I will be significantly scaling down the number of community and education programs we attend and the number of ranger programs we offer in 2025. I am not currently doing any program planning for 2025 given the uncertainties around hiring. Once I have a better understanding of if/when the park ranger position will be on duty, I will start program planning for 2025.

One bright spot for hiring is Tiffany Zadi, who started in mid-October as the park's first full-time visual information specialist. Tiffany manages the park's website, app, and social media platforms. She will be leading the implementation of the park's digital asset management program and serving as the park-wide public information officer. We are very excited to have Tiffany working with the park and continuing to build the park's digital platforms. We reached nearly 1,000,000 people last year between the website and app (this does not include social media contacts). To put that into perspective, 85,000 people visited the park (this is data for all three units combined). Our digital platforms have a huge reach!

Latino Outreach Intern Drew Gamboa finished up his internship in December. We are collaborating with the REACH Museum and Hanford History Project on the Migration to Community: Latino/as at Hanford and the Tri-Cities Exhibit that will be on display at the REACH from February 4 through March 22 of 2025.

I am looking forward to working with BRMA again in 2025! Until next time,
Becky

Department of Energy Report for 2024

Colleen French has served as the Project Manager within the Department of Energy for the Manhattan Project National Historical Park since 2009. BRMA has been honored to have Colleen as such a great advocate for the park, B Reactor and other facilities associated with the National Park. Mid-year 2024, much to our regret, Colleen changed positions within the Department of Energy and is no longer the Project Manager for MAPR. Colleen was very involved from the beginning in her role as Project Manager. She provided oversight over all of the tour activities, budget management, guidance for tour content, training for the docents who performed the tours and concern for the programs associated with MAPR across the board.

Needless to say, BRMA will truly miss Colleen's enthusiasm, input and support for the MAPR programs and activities. We wish her the very best in her new role and hope that she will keep in touch with BRMA in the future.

Visitor Report for 2024

The 2024 Tour Season was from March 29, 2024, through October 31.

Wow, what a tour season! The final numbers have been calculated. Our total number of visitors for 2024 is **15,277!!!** Officially a new record. The previous record was in 2019, with a total of 14,537.

Below are the tour numbers through October 31, 2024.

- Countries (other than USA): 52 (Includes Puerto Rico)
- States (other than WA): 49

2024 was a roller coaster year for the tour season. It appeared that there would not be any B Reactor tours during 2024, due to the refurbishing of the B Reactor roof. As it turned out, 2024 was the highest number of visitors since the tour program began in 2009 15,277 Visitors.

- Washington Cities: 247
- Washington Counties: 37 – Maybe next tour season, Ferry and Wahkiakum!

Annual Totals for Both B Reactor and the Pre-Manhattan Tours in 2024 are shown in the table below.

TOUR CATEGORY	TOTAL VISITORS	# OF TOURS
BRX-WEB	13,484	358
BRX-SPECIAL	394	19
SCHOOL	423	15
DOE	160	6
WALK-IN	0	0
BRX TOTALS	14,461	398
PRE-WEB	803	57
PRE-SPECIAL	13	1
PRE-TOTALS	816	58
TOTALS	15,277	456

BRX – B Reactor Tours; PRE – Pre-Manhattan Tours; BRX Web are those individuals that registered online; BRX Special are tours arranged directly with the Tour coordinators at the Visitor Center (these consisted of families, travel groups, and special interest groups); DOE were tours specifically directed by the Department of Energy; and Walk-In tours were by those individuals who arrived at the visitor center and were placed on tours as space is available.

The table above identifies the different sources/formats for the tours conducted during 2024. The top 5 states that had visitors during the 2024 tour season were: Washington @ 68.2%; Idaho @ 50.8%; Oregon @ 18.6%; California @ 12.9%, Texas @ 4.4% and Utah @ 4.0%. Overall, 68.2% of our visitors were

from Washington State; 26.4% were from outside the state of Washington and 4.0% were from outside of the USA.

The top 5 counties in Washington State that visitors originated from were Benton (50.6%), King (13.5%), Franklin (10.4%), Yakima (5.6%), and Spokane (3.2%).

***Note:** These stats represent roughly 99% of all visitors. (At times guests do not provide their home location).

Note: This tour data was provided by Julie O'Neill of Lucas Engineering for use in this annual report. BRMA is very grateful for Julie's assistance in providing this data for our report.

What do “The Hanford Girl”, Submarines, 221-T and 224-T and Waste Tank 241-A-105 have in common?

Read the adjacent articles to discover some of the topics presented at BRMA Public Meetings during 2024. We look forward to many more special presentations in 2025 with most months already booked with a special topic.

BRMA Public Meetings 2024

During 2023 and most of 2024, BRMA hosted several presentations by BRMA Members and topics that are of interest to BRMA members at our monthly public meetings at the Richland Library.

The January and February meetings were held as regular members attended meetings at the Richland Public Library.

The B Reactor Museum Association Celebrates Women's History Month

March 11, 2024

The Hanford Girl
Vibrant, Vivacious, and Vital

In 1943 women answered the call to participate in the war work in southeastern Washington at the Hanford Engineer Works. Their contributions were largely unknown; their names (almost!) lost to history.

With backgrounds as diverse as the roles they played, these women embodied the “Spirit of H.E.W.” and saw the job through. Meet Bernice, Olga, Hester, Anne, Florence, Leona and more as we highlight their unique stories.

Richland Public Library
6:30 Social 7:00 Program Free Admission

Note: BRMA encourages you to also plan on attending *The Real Barbenheimer – Women of the Manhattan Project* presented by the Society of Women Engineers for a look at the role women scientists and engineers played in the overall Manhattan Project. March 21, 2024 Richland Public Library 5:30 pm.

The March public meeting was very well attended, due to a presentation by Terri Andre and Meghan Simpson of BRMA, titled "The Hanford Girl, Vibrant, Vivacious and Vital". The presentation was provided several times and over 125 people attended the presentations. During the BRMA presentation, BRMA received several new members from attendees at the presentation. The programs were held in Richland at the Community Center, on the Hanford site

and live streamed as a lunch time learning program sponsored by Women in Engineering - Hanford, and at the Mid-Columbia Library on Union Street. A total of 269 attendees attended these additional programs.

Megan and Terri would like to thank the families that have shared their stories, the venues for hosting the program, the volunteers and staff of the Manhattan Project National Historical Park for their support, and the other volunteers from BRMA that assisted with the logistical details.



This photo was taken during the March presentation of “The Hanford Girl”. This presentation was so well attended that Megan and Terri were asked to present this story several other times throughout the Tri-Cities to various organizations.

Needless to say, it was very well presented and very well received.

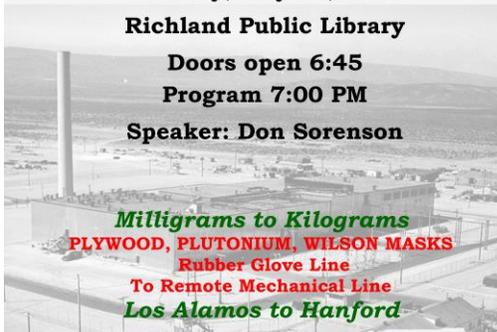
April’s public meeting was conducted as a regular public meeting with good attendance by BRMA members.



**B Reactor Museum Association
Presents**

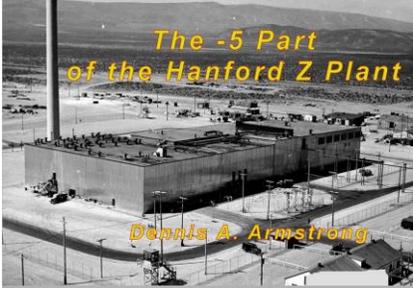
The Genesis of 234-5Z
THE PLUTONIUM FINISHING PLANT

Tuesday, May 14, 2024
Richland Public Library
Doors open 6:45
Program 7:00 PM
Speaker: Don Sorenson



Milligrams to Kilograms
PLYWOOD, PLUTONIUM, WILSON MASKS
Rubber Glove Line
To Remote Mechanical Line
Los Alamos to Hanford

May’s presentation was provided by Don Sorenson and covered the role of 234-5Z Plutonium Finishing Plant and its role in the Manhattan Project during the Cold war.



Explore the naming of the -5 (Dash Five) Part of the Hanford Z Plant - also known as the Plutonium Finishing Plant (PFP)
Mr. Armstrong narrates the 234-5 Building naming process and presents a series of images detailing the Z Plant operations.



Time: 7:00 pm
Date: June 11, 2024
Location: Richland Public Library
955 Northgate Drive
Richland, WA

A Presentation By:
The B Reactor
Museum Association

June’s public meeting featured a presentation by Dennis Armstrong on the history of the Plutonium Finishing Plant 234-5Z located in 200 West Area of the Hanford Site. The meeting was well attended, and Dennis presented a great overview of the history of the facility and its contributions to Pu production and refinement from 1949 to 1989 when Pu production stopped at the Hanford Site. Demolition began in 2016 and was completed

in April of 2021.

July’s presentation was also provided by Don Sorenson and covered the role of the 221-t and 224-T Separations buildings in the Manhattan Project Plutonium production.

Lessons to be Learned
Failure of Tank 241-A-105

Tank 242-A-105 was built in 1955.
It was to hold one million gallons of liquid waste, including “self-boiling waste” and chemical waste generated from processing 11 million tons of uranium.

Construction
“Bumps”
Evaluation
Mitigation
Impact
Analysis
Lessons Learned



Presenter:
Rick Raymond

Tuesday August 13, 2024
7:00 pm
Richland Public Library
955 Northgate Drive
Richland, WA
FREE Admission

August: A presentation by Rick Raymond on the “Lessons Learned from Hanford Waste Tank Failure at 241-A-105”

September and October public meetings were held as regular public meetings with no scheduled special presentations.

On Eternal Patrol

The loss of the Thresher and the Scorpion

<p>On 9 April 1963 the <i>Thresher</i>, SSN593, sank some 220 mi (354 km) east of Cape Cod, Massachusetts.</p>	<p>On 28 May 1968 the <i>Scorpion</i>, SSN589, sank to the Atlantic Sea floor about 460 mi (740 km) southwest of the Azores.</p>
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Lessons Learned

<p>Presenter: Rick Raymond Hosted By: B Reactor Museum Association</p>	<p>Tuesday November 5, 2024 7:00 pm Conference Rooms A & B Richland Public Library 955 Northgate Drive Richland</p>
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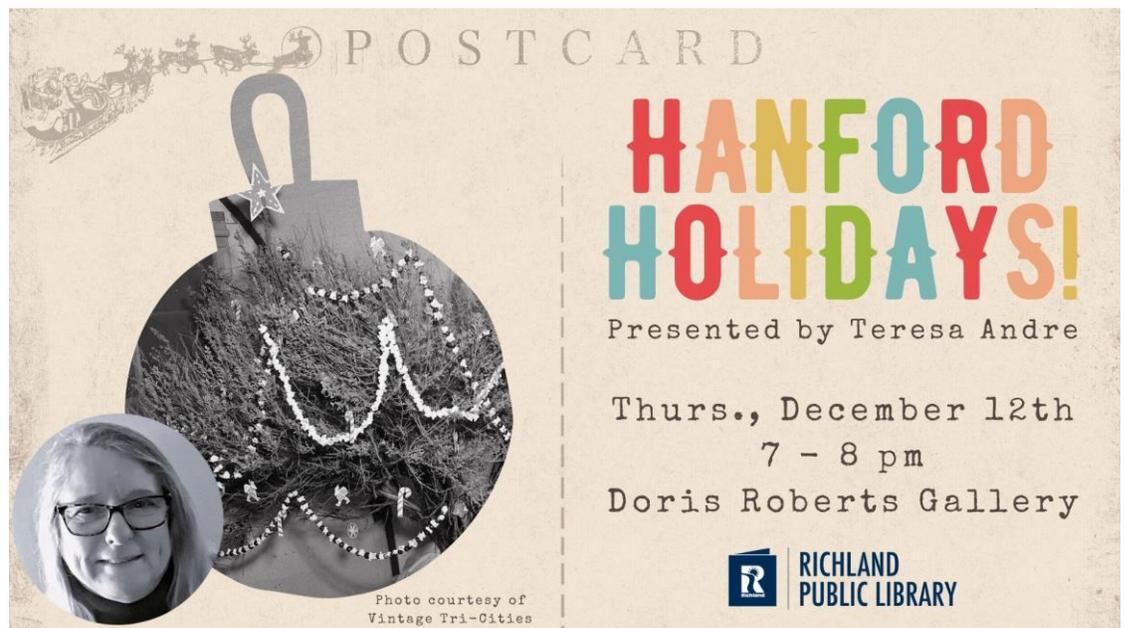
From 1977 to 1980 Rick Raymond was the lead Naval Reactors engineer responsible for these two submarines on "Eternal Patrol." He will discuss what lessons are to be learned from their demise.



In November a presentation by Rick Raymond was attended by approximately 40 individuals, including the local Submariner's Association of the Tri-Cities. Interestingly enough, the meeting was attended by a group of retired Submariners from the Tri-Cities. They were very interested in Rick's presentation and very supportive of the stories Rick shared with the attendees.

BRMA hosted a presentation at the Richland Public Library on Monday, December 11 at 7:00 pm. BRMA member Mark Jensen presented "Of Critical Concern: An Historical Perspective" Exploring criticality accidents of special historical concern from 1945 to the present. Mark addressed investigate causes and consequences of two Cold War era Hanford accidents and the 1999 criticality accident at the JCO Fabrication Plant in Japan.





On December 12th, BRMA sponsored one additional presentation by Terri Andre. The topic was Hanford Holidays and Terri presented stories and photos of what Christmas was like in the early 1940s at the Hanford Construction Camp. The meeting was well attended and again, several new members joined BRMA to support future efforts to tell the B Reactor and Manhattan Project National Historical Park story. We are very grateful for the support these presentations have had over the past year and will continue into the future to share relevant stories associated with the MAPR and B Reactor and Pre-Manhattan Historical stories.

2024 was the 80th anniversary of the startup of B Reactor, which began operation on September 16, 1944. As such, a celebration was held at the B Reactor with several speakers, a presentation by the Mid-Columbia Master Singers and BRMA's own Del Ballard as the Keynote speaker. Del's presentation is provided in this section in order to preserve his story.

80th Anniversary Celebration of B Reactor Startup

On October 16, 2024, a celebration was conducted with invited guests to commemorate the startup of B Reactor 80 years ago on September 26, 1944.

The gathering was organized by the Department of Energy with assistance from Hanford contractors Central Plateau Cleanup Company (CPCCo) and Lucas Engineering. It was determined that the celebration needed to be conducted during a workday and could be conducted at the B Reactor even though it did not appear that that would be the case earlier in the summer during planning sessions for the celebration. Invitees included any current member of the B Reactor Museum Association, invited members of the National Park Service, and selected members of the Department of Energy. Special guest "Doc" Hastings was also in attendance because of his role in the establishment of the Manhattan Project National Historical Park (MAPR).

The program focused on the actions necessary to preserve B Reactor and the history since that preservation was announced in 2009 when official tours began to B Reactor. Several speakers were invited to participate, with Rob Roxburgh of CPCCo with opening remarks; followed by "Roll On Columbia" by the Tri-Cities Master Singers (MCM), Preserving B Reactor by Del Ballard (See Del's presentation later in this Annual Report), Sites, Stories, & Legacies of Manhattan Project, Becky Burghart, NPS; *Recital in B Reactor* by Kathleen Flenniken, read by Ted Miller, MCM; Hanford's History Project, Dr. Michael Mays, Washington State University, Tri-Cities; African American Contributions to Hanford, Vanis Daniels, AACCES; *Ashes from Nuclear Dreams* performed by MCM; and closing remarks by Patrick Jaynes, Lucas Engineering.

Mr. Del Ballard, one of the Founding members of BMRA provided the following presentation to the guests present at the celebration.

"THE JOURNEY TO PRESERVATION"

Yes, this is the eightieth anniversary of this historic reactor. Also, it is this time of the year when a new organization was being formed, the B Reactor

Museum Association, or BRMA for short. Our committee held its first meeting in the late summer of 1990 and BRMA, as a nonprofit, was formally incorporated in Jan 91. The government was making plans to clean up the Hanford site and all nine of the production reactors were to be decommissioned and dismantled. There was some realization of the historical significance of the B Reactor but there were no formal plans to preserve it. So, BRMA was organized with the objective of preserving the B Reactor, and seeing the building converted into a public museum.

The journey from that time until the park was established, as many of you know, was a long and very rocky ride. So, let's take a brief look at parts of that journey.

During our early years BRMA was working to develop sound relationships with the Dept. of Energy and the site contractors and doing everything we could to gain public support and to promote the preservation of the B reactor.

We met with and sent letters to our federal legislators. We formed a speaker's bureau and gave talks to technical groups, to the public, and to charitable organizations. We prepared a resolution requesting preservation, obtained over 1200 signatures and sent this to DOE management in Washington DC. We attended local DOE planning, schedule, and budget review meetings to promote our objective.

In 1993 a Record of Decision was issued calling for the dismantlement of all Hanford reactors, Including B. However, in '92 the B Reactor had been placed on the National Register of Historic Places. That fact, and with pressure from outsiders, largely BRMA, the DOE was persuaded to authorize a Phase I feasibility study to look at a museum conversion. That study, along with a larger Phase II study & several others that followed, defined what was needed to allow public access, what safety and contamination conditions had been addressed, and what the costs might be. None of those studies showed any overriding issues that would preclude turning the building into a museum and even showed that the cost of dismantling was more than a museum conversion. Most of that remediation work was then accomplished over time,

the tour route was expanded, and safety concerns were addressed. The possibility of a museum was growing. However, up until the turn of the century DOE was not willing/or able to commit to a long-term preservation of the B Reactor. The future of B Reactor continued to remain uncertain!

Simultaneously, scheduling and actual work was under way in cocooning the reactors. C Reactor was the first, and milestones were being set for each of the nine reactors.

In an effort to get more time BRMA was working to get B Reactor placed at the end of that list and finally removed from the list entirely.

Now jumping to some separate elements of our long journey.

Tour Guides: During the 1900s and well into the 2000s BRMA exclusively provided tour guides for most all of the special and/or scheduled tours. From '98 through '08 we were working under a contract with Bechtel. That arrangement ended in '09 when the Fluor Hanford sub-contracted that job to a company called Indian Eyes.

In 2000 BRMA prepared an engineering document describing the reactor. That document called the HEAR document (Historical American Engineering Record) was completed and approved in 2001. The HAER for the T Plant was prepared and submitted but lay dormant for years. Our member, Gene Weiskopf was the lead for both.

BRMA also provided substantial input to two AHF documents; the Blue Book titled B Reactor, First in the World, and later a booklet called Guide to the Manhattan Project in WA. State. All of these documents, and several others, are available at the BRMA gift shop.

NATIONAL LANDMARK DESIGNATION: Three prominent engineering societies, the American Mechanical, Nuclear, and The American Society of Civil Engineers had all designated B Reactor as one of their National Landmarks. It was time for the Nation to do the same. In 2003 BRMA took the initiative and prepared the initial draft document nominating B as a

National Landmark. That draft was submitted to DOE and the Park Service for review in early '05. After a long delay and a lot of back and forth the job was taken over by the NPS, and with support from the U of W, that nomination was finally completed and later approved by the Secretary of Interior. Remember the big event celebrating the Landmark designation that was held right here on August 8th. This was a huge step towards preservation of B reactor. Thanks to Doc Hastings for his work in getting that nomination thru the system.

Displays & exhibits: The three large models, located here in this room, were all produced under a cooperative effort between BRMA & the Atomic Heritage Foundation. I'm sure these informative models have been helpful tools for the docents, and educational for our visitors.

Due to time restraints, I can only touch on only a few items of this long journey; so if you would like to learn more about the gory details of BRMA's work and involvement over the years you need to get the newly published booklet that documents the history of our organization, titled "Saving B Reactor". Frankly I, and others, believe that B would not have been preserved if it not for BRMA's work and persuasion over the years.

Now let's go back to the timeline for our journey. In 2002, conditions turned somewhat positive when DOE announced that they would consider a public option if a capable partner was found to operate a long-term preservation mission. At that point BRMA's attention turned to the National Park service as that "capable partner". We and others asked our legislators to get authorization for the Park Service to conduct their required special resource study. That study was authorized in 2004, but without new funding. BRMA did all we could in support of the Park Service, including supplying a large number of pertinent documents and attending their kickoff meeting. The years' long process in getting results from that study was constrained by the shortage of funding.

Finally in 2009 the second draft of the study document was issued for public comment. For Hanford and Oak Ridge that draft was a big disappointment, as

the report concluded that a multi-site park was not feasible. Included in the 5 options proposed by the park service, only the site at Los Alamos was to be a fully managed park site. A local coalition, including BRMA, led by Maynard Plahuta & Gary Peterson, in cooperation with similar groups from Oak Ridge and Los Amos insisted the park include all three of these major sites in one park, in order to tell the full story of the Manhattan Project. Additionally, the park service was not equipped to handle a nuclear facility like the B reactor. Fortunately, in May of 2010 the DOE stepped forward and announced that they would partner with the Park Service, including ownership responsibilities, including cleanup & mitigation of safety & radiological issues. That partnership commitment led to a change in the Parks assessment of feasibility. They revised their study document and recommended a multi-site historical Park.

Finally, what was needed was the Federal authorization for a new Historical Park. Again BRMA, and the AHF were primary advocates in obtaining that legislation, and in 2014 the law authorizing the Historical Park was passed and signed by the president on Dec. 19, 2014. -Some more of Doc Hastings good work. Now we have a National Historical Park - WOW- What an amazing, and appropriate, completion to this preservation journey.

Following the formal establishment of the Park in 2015, BRMA has updated its mission and is now fully dedicated to providing technical and financial support to the Park. Since 2015 BRMA has helped with a new tour video; provided funding for displays in the Reflection Room, Generated the "Know before You Go" video series, and has provided funding, and narrative input, for the Park's recently completed Virtual Tour of the B Reactor. Thankfully, our gift shop is performing quite well under the direction of Rick Bond and providing those needed funds. Lastly our past President, Robert Franklin recently revised and updated the HAER document for the T Plant.

In conclusion, BRMA plans to continue our support for the National Park Service, as appropriate. And now, thanks to all & happy trails. Del Ballard

Speakers for 80th Anniversary Celebration



Del Ballard “The Journey to Preservation”



Rob Roxburgh Opening Remarks (CPCCo)



Dr. Michael Maze (WSU Tri-Cities Professor and Hanford History Project)



Vanus Daniels (AACCES)

Attendees at 80th Anniversary Celebration



Becky Burghardt (NPS), Heather Dale (DOE) & Becky Burghardt (NPS)



“Doc” Hastings and Ben Johnson



Mid-Columbia Master Singers

This section is provided to recognize and honor 4 of our members who passed away in 2024, who have provided time and much effort to the progress of the Manhattan Project and BRMA. Each will be uniquely missed and we are grateful for the contributions each made to BRMA and establishment of the MAPR National Park.

Honorary Tribute to BRMA Board Members Lost in 2024

Hank Kosmata

A Tribute to H. R. "Hank" Kosmata May 28, 1930 - January 11, 2024



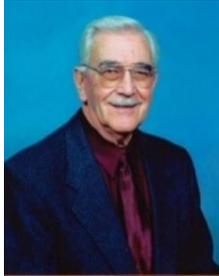
Editor's Note: This history of Mr. Hank Kosmata was personally provided by Hank based on a request by the BRMA Board of Directors to have him record "His Story". It is presented here in Honor of Hank and the contributions he made to the B Reactor Museum Association.

Hank was born on May 28, 1930, in Ord, Nebraska. His family, including his younger brother Alan, moved from Nebraska to Idaho in 1945. A top scholar and athlete, Hank graduated valedictorian from Caldwell High School and received a scholarship to play football at the University of Utah. A proud member of the 1951 Skyline Championship team, Hank enthusiastically cheered on the Utes for the rest of his life. After graduating with honors from Utah with a B.S. in Chemical Engineering, Hank spent two years in the Air Force and then moved to Richland in January of 1954 to take a position as an Engineering Assistant for General Electric (transitioning to Douglas United Nuclear) where he worked until 1972. Hank, with a chemical engineering degree, joined GE at Hanford in January of 1954. He quickly began to take a series of physics courses designed and taught by GE primarily to chemical and mechanical engineers to prepare them to work as nuclear engineers. In early 1955 he joined a multi-disciplined group named Reactor Design Analysis. This group had done the conceptual design for the twin K reactors and now they are providing construction engineering assistance to those projects. His management soon came to him and gave him a dream assignment. They told him they believed GE would soon be asked for additional plutonium production, and they asked him to develop a conceptual design for the next reactor. He spent the rest of 1955 and most of 1956 on that assignment and on August 31, 1956, he documented the design in HW-45089. Within a year GE was asked by the Department of Energy to propose reactor capacity for

additional production and GE selected this design and it was named the N reactor. The N design was similar to other Hanford reactors in that it used graphite moderation and water cooled process tubes containing metallic uranium. At that time all the Hanford reactors used aluminum as the process tube and fuel cladding material. While aluminum is very neutron friendly, its physical characteristics limit the temperatures of the cooling water to sub-boiling levels. For this reason, all the Hanford reactors including the K reactors used a cooling system where the river water went into the reactors, picked up the enormous heat energy from the fuel elements and then wasted and returned all of that energy directly into the river. Hank was able to take advantage of the work Admiral Rickover had done to develop zirconium for use in the navy nuclear program. While zirconium was much more costly than aluminum it was very neutron friendly and, most important, it had great strength at high temperatures. The original N reactor design had a reactor outlet coolant temperature of 580 degrees F. The recirculating cooling system transferred heat to steam generators and then to turbine generators to produce 723 megawatts of electrical power from 2400 thermal megawatts of heat energy. The income from electric power served to reduce the cost of the plutonium produced. President Kennedy was present on September 26, 1963, for the groundbreaking for the turbine generator portion of the plant which ultimately produced 65.9 B KWhr of electricity for Northwest public and private utilities.

Hank continued to work on the N reactor through its final design and construction and early operation. Later as manager of the Reactor Design Analysis group he led the group as they developed an operation program to demonstrate that the N reactor could operate at a power level of 4800 thermal megawatts if needed. Hank completed his MBA from the University of Washington in 1964. When the nuclear industry seemed to be heading in the wrong direction, he transitioned into a new career in 1972, working in the private sector applying his MBA as Chief Financial Officer for a startup company in Richland. In 1973 Hank joined Washington Public Power Supply System to work on developing commercial nuclear power projects and as

Manager of Planning & Analysis, his final project was directing and coordinating the development of agreements to establish the construction and power sales contracts supporting the formation of nuclear projects 4 and 5. Hank retired in 1990 but remained very interested and passionate about contributing to the community of Richland. He served on the Utility Advisory Committee for 15 years from 2000 -2015, (serving as Chairman for 5 years, Vice Chair for 4). His work on the N reactor had given him a great appreciation for the scientists and engineers who developed and built the first Hanford reactors, and this led him to BRMA in 2000, becoming highly active in guiding tours through B and serving as vice president of BRMA (2005, 15, 16, 17, 18) and president of BRMA in 2006, 7 and 8. As a tour guide he observed that in the limited time for the tours it was difficult for visitors with little or no technical background to begin to understand how the reactor worked or to appreciate the science that led to the construction and operation of these first reactors at Hanford. He decided it would be helpful if BRMA could develop a group of informational videos that would be available to prospective visitors who could review them at their leisure before they came to B Reactor. He obtained a grant from the City of Richland and produced these videos which he called "What to know before you go". Hank, in conjunction with other BRMA members including Norm Miller produced 4 videos describing the history and operation of B Reactor for visitors to view prior to participating in a tour of B Reactor. The videos are titled: "Introduction to B Reactor Tour"; "History: Atom to B Reactor"; "Inside B Reactor"; and "B Reactor Virtual Model". Hank additionally included an animated video produced by General Electric (GE) during the time GE managed the reactors at Hanford. These videos are now available on the BRMA website. Hank continued to support BRMA for many years after serving as the association president as a historian and resource for work in which BRMA was involved. Hank will be missed by many members of BRMA who have had the pleasure of working with him over the years.

Paul Vinther

A Tribute to Paul Vinther, RIP by Burt Pierard, BRMA Reporter November 22, 1923 – September 2, 2024

BRMA lost its eldest member at the grand old age of 100 years old in September. Paul celebrated 70 years of marriage to his wife, Patsy, when she passed away in 2017. Paul was born in Spokane, WA, joined the US Navy in 1943, graduated with a BS degree in Physics from Whitworth College in Spokane, and moved to Richland in 1950, where he began working for General Electric at the Hanford Project. They planned to stay for 3-5 years and then move on; instead, Paul remained at Hanford for 38 years, working for different companies at different reactors over the years, and retiring in 1988 as Manager, Defense Reactor Fuels Supply.

One of his first jobs, considering that the Cold War had begun, was how much DuPont's over-design could safely be run to increase the output of product above 250 Mw design level. With successful incremental changes and a project to increase the water flow through the reactor, 2000 Mw was safely maintained. After retirement and formation of BRMA, he took up a real joy in his life, Tour Guiding at B Reactor.

For over 74 years he was an active member of Central United Protestant Church. He loved singing in the choir where he continued to sing until two years ago. It was at Central Church that Paul and Patsy were involved in a couples group called "Kumdubls," where many long-lasting family friendships were formed involving regular potlucks and many Mt. Rainier family camping trips, something that their children remember and appreciate so well. In addition to choir, Paul held many leadership positions in the church, including the Trustees and the Finance committees. For several years he played the role of Jesus in Central Church's Holy Week presentation known as the "The Final Hour" that focused on the Passion of Christ.

Paul was active in the local Kiwanis chapter and was the first and only President of the Hanford Retirees Association until its closure in 2023. He also

served on the board of GESA Credit Union for many years. Paul will be missed for his humor, historical perspective and as a fellow Docent on B Reactor tours.

Mark Smith



A Tribute to C. MARK SMITH Born 1935 – Died November 9, 2024

HANFORD WA ‘political junkie,’ author, award-winning Tri-Cities community leader has died!

A Tri-Cities community leader, self-described “political junkie” and author of Washington history and politics books died Saturday. C. Mark Smith, of Richland, was 89. He retired from a 40-year career in economic development in 2005 that included eight years as a senior official in the Nixon, Ford and Carter administrations. From 2000 to 2005 he served as the manager of business and economic development for the city of Richland. The next 19 years he dedicated himself to his interest in history, biography and politics, researching and authoring five books. He wrote books when he “saw a hole in history he wanted to fill,” said Robert Franklin, vice president of the B Reactor Museum Association and Washington State University Tri-Cities assistant professor of history. Smith, a native of Tacoma, started with “Raising Cain,” about his childhood mentor, former Washington Sen. Harry P. Cain. It was Cain who exposed the excesses of the Eisenhower Administration’s loyalty-security program as an administration appointee during the McCarthy era. Mark Smith next was “Community Godfather: How Sam Volpentest Shaped the History of Hanford and the Tri-Cities”. As much a history of the Hanford nuclear site and the Tri-Cities as a biography of Volpentest, it tells the story of Volpentest’s strong determination to save the Tri-Cities as the U.S. government stopped plutonium production. He wrote a short history of the Lewis and Clark expedition for the American Queen Steamboat Co., which is used by their passengers during cruises on the Snake and Columbia rivers. Next came “Doc: Congressman Doc Hastings through Twenty Years of

Turmoil,” as Hastings’ political career representing the Washington 4th Congressional District coincided with the growth of partisanship and the nation. At the time of his death, Smith was gathering recent information on the Hanford nuclear site, apparently planning to update “Something Extraordinary: A Short History of the Manhattan Project, Hanford and the B Reactor,” written with Robert L. Ferguson in cooperation with the B Reactor Museum Association and the WSU Tri-Cities Hanford History Project. Smith was dedicated to the Tri-Cities community and said that signing up for what would be 23 years with the Richland Rotary Club was one of the best things he ever did. He volunteered as the communications officer for the B Reactor Museum Association and was the vice president of programs for the Columbia Basin Badger Club. “That drive to be involved will be really, really missed,” Robert Franklin said. Kirk Williamson, president of Badger Club, said Smith was dedicated, organized and had “a real spirit of we could do anything if we put our mind to it.” Mark thought big, Williamson said, and was willing to call anyone, including drawing on his large circle of friends and acquaintances, to find speakers for the club’s public forums on important and timely topics. Speakers he brought to the Tri-Cities club have included retired Gen. James Mattis, the former defense secretary; Nicholas Kristof, a New York Times columnist and winner of two Pulitzer Prizes; Alex Biryukov, live from Ukraine; and coming soon, Peter Wehner, a senior fellow at the Trinity Forum, opinion writer for The New York Times and contributing editor at The Atlantic.

Jim Stoffels



Jim Stoffels Born February 18, 1938, and Died Dec 11, 2024. Nuclear peace activist, ex-councilman with courage to be ‘conscience’ of Tri-Cities died. The man who dared to oppose nuclear weapons in a town where many people made comfortable livings manufacturing plutonium to arm them during the Cold War passed away.

Peace activist and former Richland Councilman Jim Stoffels, 86, of Richland, died Dec. 11 after being treated for cancer for several years. “He was our conscience” and was unwavering in his beliefs, said Ed Frost, a former Kennewick School Board and Kennewick council member. “He would say the things we were thinking but maybe were afraid to say.” In a city such as Seattle, Stoffels would have been lauded and encouraged for his work to promote peace, Frost said. But his passion and advocacy for peace took courage in the Tri-Cities, Frost said. He was a “remarkably kind person” and had “tremendous concern about children all over the world” and about unilateralism and defense spending according to Frost.

On July 7, 1982, Stoffels and three other founding officers held a news conference to announce the formation of World Citizens for Peace. For the next 42 years the group was a staple of Tri-Cities life, demonstrating against war and calling for nuclear disarmament. “The total elimination of nuclear weapons is the only absolute guarantee for all of us to be safe from the threat of nuclear annihilation,” Stoffels wrote in an op-ed for the Tri-City Herald on the group’s 25th anniversary in 2007. Jim organized the annual Atomic Cities Peace Memorial held in Richland for 40 years. The events commemorating the anniversary of the Nagasaki atomic bombing included the ringing of the Bell of Peace, a gift to Richland from the mayor of Nagasaki in 1986. This honoring is now a part of the National Park commemoration in August each year.

Gene Weisskopf of Richland wrote in a letter published in the Tri-City Herald in 2001 that he appreciated Stoffels’ efforts to organize an Oct. 14 rally. “Although I don’t agree with him on every issue, he is a man who cares about this country, has a true love for life and cares all too deeply about the children of the world who all too frequently end up as victims of the wars inflicted on them,” Weisskopf wrote.

The Hanford site and Nagasaki, Japan World Citizens for Peace may be best known for four decades of Richland ceremonies to commemorate the Aug. 9

anniversary of the atomic bomb fueled with Hanford plutonium dropped over Nagasaki, Japan, in 1945, six days before the Japanese surrendered and World War II ended. The Atomic Cities for Peace Memorials, which began in 1982, remembered both the Americans who died at Pearl Harbor, Hawaii, as well as the Japanese who died in Nagasaki. In 1985, Stoffels was also working toward preserving the Hanford site's historic B Reactor as a founding member of the B Reactor Museum Association. The reactor, which produced plutonium for the atomic bomb dropped on Nagasaki, is now part of the national park system. Jim's obituary stated that Jim worked as a senior researcher for the Atomic Energy Commission's Hanford Laboratories, now Pacific Northwest National Laboratory, for 33 years before retiring in 1995. Jim will be fondly remembered as a founding member of the B Reactor Museum Association and for his role as the BRMA Vice President from 1990 to 2002.

Organizational Information

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