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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

December 20, 1999

MEMORANDUM TO: Chairman Meserve
Commissioner Diaz
Commissioner Dicus
Commissioner McGaffigan
Commissioner Merrifield

FROM: William D. Travers
Executive Director for Operations

SUBJECT: DECEMBER 1999 STATUS REPORT ON AGENCY YEAR 2000 ACTIVITIES

The December 1999 Status Report on Agency Year 2000 Activities is attached for your information. This report updates information provided in the November 1999 report on Year 2000 (Y2K) activities that was forwarded to you on November 17, 1999. On November 4, 1999, NRC received a report from Joseph M. Farley Nuclear Plant, Unit 2, that it was Y2K ready. Therefore, all 103 nuclear power plants are now Y2K ready.

In order to keep both internal and external stakeholders informed of Agency Y2K activities as they relate to our licensees, this report will be made publically available and placed on NRC's Y2K website.

Attachment:
As stated

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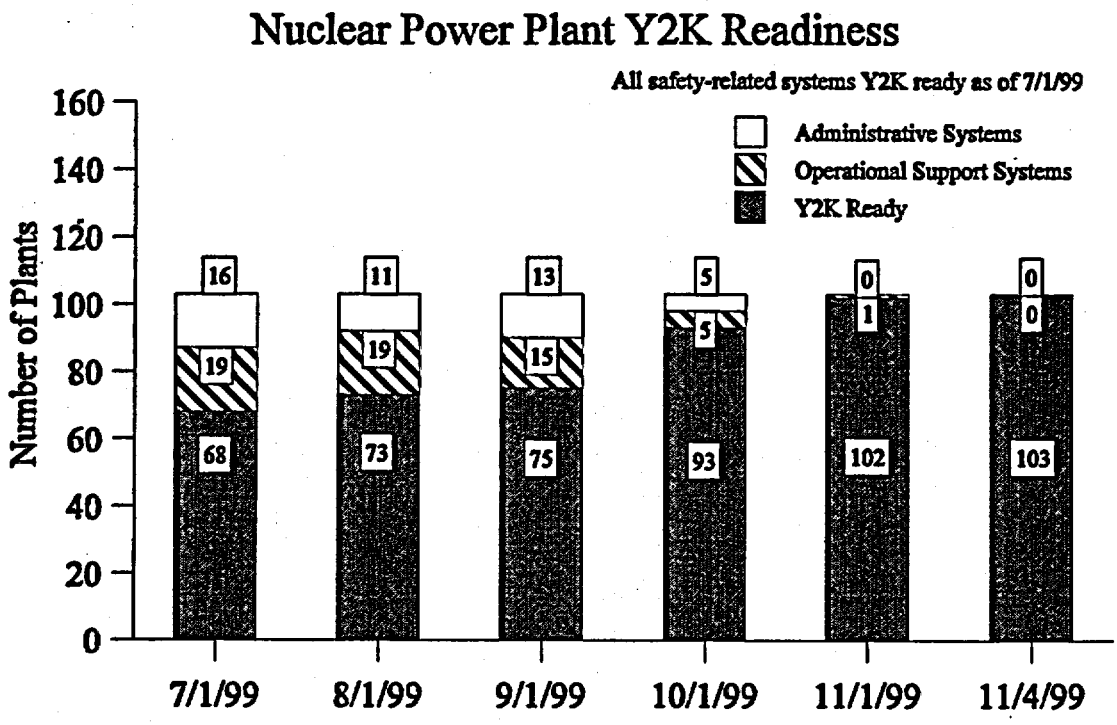
United States
Nuclear Regulatory Commission
Status Report on Year 2000 Activities as of December 1999

INTRODUCTION

This report is the twelfth periodic report on the status of agency Y2K activities. The report covers the period from November 1 through November 30, 1999. More detailed Y2K-related information and the previous periodic reports to the Commission can be found on NRC's Y2K website at http://www.nrc.gov/NRC/NEWS/year2000.html.

POWER REACTORS

As noted in previous reports, the staff had sent letters to the licensees of 12 facilities that were not expected to be Y2K ready by September 30, 1999, to confirm their completion schedules and tasks for remaining work. The staff determined that these plants with Y2K work remaining were continuing to progress toward Y2K readiness. In fact, by September 30, we received licensee reports indicating that only 10 of the 12 plants had Y2K work remaining and 93 plants were Y2K ready. During October, we received letters indicating that Y2K ready status had been achieved by nine of these remaining ten plants. On November 4, the NRC received a letter indicating that Y2K readiness had been achieved by the final plant, Farley 2, ahead of the December 16-scheduled date. Therefore, the NRC has now received Y2K readiness status reports from licensees indicating that all 103 nuclear power plants are Y2K ready. Table 1 (Attachment 1A) provides a summary of nuclear power plant (NPP) Y2K readiness status. The following chart illustrates plant readiness.



The solid shaded regions of the chart represent the number of NPPs that were Y2K ready on the corresponding date. The diagonally shaded regions of the chart represent the number of NPPs that were not scheduled to be Y2K ready on the corresponding date, and had systems to be remediated that could affect power operations. (Remediation is defined in Nuclear Energy Institute/Nuclear Utilities Software Management Group (NEI/NUSMG) 98-07 "Nuclear Utility Year 2000 Readiness Contingency Planning" as the process of retiring, replacing, or modifying software or devices that have been determined to be affected by the Y2K problem.) The unshaded regions of the chart represent the number of NPPs that were not scheduled to be Y2K ready on the corresponding date, and that had only systems that could affect NPP administrative functions to be remediated.

The staff monitored the progress of the work to be performed and independently verified completion of scheduled items, including Y2K contingency plans. All licensees will be able to operate their plants safely during the transition from 1999 to 2000 and beyond. Therefore, we do not anticipate the need for the NRC to direct any plant-specific action.

OTHER Y2K RELATED ACTIVITIES

The staff responded to Y2K related controlled correspondence from Senators Robert Bennett, Christopher Dodd, and Paul Coverdale, as well as Congressman Tierney. The staff also responded to two Y2K related correspondences from Senator Susan Collins.

The staff has developed and issued a Temporary Instruction to inspect licensee Y2K program activities at selected decommissioning reactors. Facilities that were not selected for inspection have been shutdown for at least 6 years and either do not present a spent fuel pool heat load concern or fuel has been removed from the spent fuel pool. The facilities to be inspected are as follows:

Millstone Unit 1
Haddam Neck
Maine Yankee
Big Rock Point
Zion Units 1 and 2

The inspections are to be completed during the weeks of December 6 and December 13, 1999.

Lessons learned from the October 15, 1999, full scale exercise were incorporated into the NRC's Y2K Contingency Plan for the Nuclear Industry. The Office of Nuclear Reactor Regulation's staff is also continuing preparations for the Y2K transition. This includes participation in the December 8 White House Information Coordination Center (ICC) drill and refresher training for Headquarters response team members to be held in late December.

The staff issued the Implementing Procedure for Y2K-related Notice of Enforcement Discretion issues, for use during the Y2K transition. This procedure is being transmitted to all licensees of operating nuclear power plants via a Regulatory Issues Summary, dated December 1, 1999, and is available at NRC's Y2K website at http://www.nrc.gov/NRC/NEWS/year2000.html.

FUEL CYCLE FACILITIES AND MATERIALS LICENSEES

On December 3, 1999, the U.S. Food and Drug Administration (FDA) and NRC held their annual meeting. During the meeting, the Y2K activities of both agencies were discussed. NRC will be notified of reports to FDA's MedWatch reporting system, a system that tracks significant health hazards associated with the use of medical products.

The Office of Nuclear Material Safety and Safeguards (NMSS) will issue a final Information Notice (IN) to medical licensees. The IN will discuss NRC's concerns with treatment planning systems and the reporting requirements of 10 CFR Part 21 and FDA's MedWatch reporting system.

NMSS provided an updated Y2K webpage to the Office of the Chief Information Officer which included (1) a summary of the conclusions of the Y2K follow-up inspections at the Portsmouth and Paducah gaseous diffusion plants and (2) the projected operating status of the ten major fuel facilities during the Y2K transition.

As part of the lessons learned from the October 15, 1999, NRC Y2K exercise, (1) NMSS provided definitions of the terms "Alert" and "Site Area Emergency" used by fuel cycle facilities to the Office of Public Affairs and (2) the Paducah and Portsmouth gaseous diffusion plants were added to the Y2K Early Warning System (YEWS) and will be contacted by the NRC for a status check at 12:15 a.m. on January 1, 2000.

NMSS contacted the Westinghouse fuel fabrication facility to get an update on the Y2K readiness status of the facility. The facility will be shutdown prior to, and remain shutdown

during the Year 2000 transition period. Westinghouse plans to provide documentation of Y2K readiness to the NRC by December 24, 1999.

NMSS briefed the NRC spokesmen to the ICC (Miraglia and Wermiel) regarding the two gaseous diffusion plants that will be operating during the Y2K transition.

NMSS received confirmation from BWX Technologies that the site has plans for a controlled startup after the Y2K transition. This means that the eight major fuel cycle facilities which will only be performing low-risk, low-safety-significant activities during the Y2K transition.

An updated status of the Y2K readiness of fuel cycle facilities as of December 10, 1999 is provided as Table 2 (Attachment 1B)

CONGRESSIONAL INTERACTION

In late November, Rep. Horn (R-CA) issued his final report card on federal agencies' internal Y2K efforts; the NRC earned an "A." The government-wide grade was a "B+." OCA continues to receive congressional telephone and written inquiries regarding Y2K and nuclear power plants.

CONTINGENCY PLANNING AND INTERNATIONAL PROGRAMS

The staff participated in a "stressed" exercise at the ICC on December 8 and 9. The ICC team, led by Frank Miraglia, the NRC Deputy Executive Director for Reactor Programs, coordinated information concerning potential Y2K problems with the Headquarters Operations Center, the Regional Incident Response Centers , appropriate Federal agencies, and the President's Council on the Year 2000. This included testing a procedure developed jointly by NRC, DOE, EPA, and the State Department to share, validate, and coordinate the Federal response to a reported nuclear power plant problem in a foreign country. Although the "stressed" exercise proved to be a valuable learning experience for the ICC team, it highlighted the need for further improvement in the way information is coordinated with the DOE Operations Center. Consequently, the staff plans to reassign a Y2K response team member from the Headquarters Operations Center to the DOE Operations Center during the Y2K transition.

The staff used the December 8 and 9 ICC exercise to test certain aspects of the Y2K Contingency Plan that were not fully tested during the October 15 exercise. For example, an open telecommunications link between the NRC Operations Center, the Regional Incident Response Centers, and the ICC Operations Center was maintained throughout the exercise. Changes that have been implemented based on the lessons-learned from the October 15 exercise were also tested. The staff successfully demonstrated that it can obtain plant status information and enter it into YEWS in a rapid manner (in about 15 minutes or less). The ability of the early monitoring team to obtain, analyze, and coordinate information from various sources, such as YEWS, was also successfully tested.

The staff also completed several significant infrastructure enhancements to the Headquarters Operations Center and the Regional Incident Response Centers in preparation for the Y2K transition. One Iridium satellite phone was installed in each Regional Incident Response Center and two additional phones (for a total of three) were installed in the Headquarters Operations Center. A dedicated FEMA National Warning System (NAWAS) circuit to the Headquarters Operations Center was also installed. The staff is working with DOE to install a

circuit for the DOE Emergency Communication Network. Modifications to add the Region IV Incident Response Center and supporting infrastructure to the building owner's emergency diesel generator are expected to be completed by December 23. Also by that time, Region IV expects to complete installation of 23 additional phone lines to assure that they will be equipped to handle a large volume of phone traffic in their back-up role to headquarters for Y2K and continuity of operations.

While the principal focus of the NRC's Y2K contingency planning effort remains on the Y2K transition in the U.S. and the potential effect on our licensees, there is an increased awareness that Y2K problems are more likely to occur outside of the United States. Based on lessons learned from the Tokaimura criticality accident, the staff has assigned a Senior Executive Service manager (Carl Paperiello, Deputy Executive Director for Materials, Research and State Programs) to the ICC during the day and early evening hours of December 31. He will respond to questions or inquiries from media or other ICC sectors related to the ramifications (for NRC licensees) of a reported foreign nuclear facility problem.

Membership in YEWS for civilian nuclear installations has increased to 33 countries: Argentina, Austria, Australia, Belgium, Brazil, Canada, Czech Republic, Denmark, Finland, France, Germany, Hungary, Ireland, Israel, Italy, Japan, Korea (Republic Of), Lithuania, Mexico, Netherlands, Norway, Portugal, Romania, Russia, Slovakia, Spain, Sweden, Switzerland, Taiwan, Turkey, Ukraine , United Kingdom, and the United States of America.

YEWS performed as designed during two encompassing exercises with international participation on December 8 and 9. Final development work on YEWS, which includes enhancing the security features and reporting formats, will be completed on December 23.

Information from YEWS will be shared with the ICC and U.S. government agencies.

PUBLIC AFFAIRS AND Y2K COMMUNICATIONS ACTIVITIES

During the month of November 1999, the NRC Web site saw a slight increase in demand for Year 2000 information. The NRC Year 2000 Page moved from 26th to 23rd most requested page on the NRC Web site. It also remains among the ten most popular single entry pages. A single entry page indicates a visitor knows exactly where to look, meaning the page was either bookmarked or the address was taken from another source, such as a press release.

NUREG-1706, "Year 2000 Readiness in U.S. Nuclear Power Plants," (an Adobe Acrobat file) dropped from 6th to 11th most downloaded file on the NRC Web site. However, Chairman Meserve's recent letter to Senators Bennett and Dodd on Y2K issues was the 8th most popular download.

During November, the Office of Public Affairs issued one press release on Y2K--

> On November 8, NRC issued a press release announcing that NRC had confirmed that all nuclear power plants were fully Y2K-ready.

In addition, the NRC staff responded to many written inquiries from members of the public.

Attachments: 1A. Table 1, "NPP Y2K Readiness Status as of November 1, 1999"
1B. Table 2, "Fuel Fabrication and Gaseous Diffusion Plant Systems and Components Requiring Completion of Year 2000 Readiness Activities as of November 1, 1999"

Table 1 NPP Y2K Readiness Status as of December 1, 1999		
NPP Name	NPP Licensee	Readiness Status/Date
Arkansas Nuclear One, Units 1 and 2	Entergy Operations, Inc.	Y2K Ready
Beaver Valley Power Station, Units 1 and 2	Duquesne Light Company	Y2K Ready
Braidwood Station, Units 1 and 2	Commonwealth Edison Company	Y2K Ready
Browns Ferry Nuclear Power Station, Units 2 and 3	Tennessee Valley Authority	Y2K Ready
Brunswick Steam Electric Plant, Units 1 and 2	Carolina Power and Light Company	Y2K Ready
Byron Station, Units 1 and 2	Commonwealth Edison Company	Y2K Ready
Callaway Plant, Unit 1	Union Electric Company	Y2K Ready
Calvert Cliffs Nuclear Power Plant, Units 1 and 2	Baltimore Gas and Electric Company	Y2K Ready
Catawba Nuclear Station, Units 1 and 2	Duke Energy Corporation	Y2K Ready
Clinton Power Station, Unit 1	Illinois Power Company	Y2K Ready
Comanche Peak Steam Electric Station, Unit 1	Texas Utilities Electric Company	Y2K Ready
Comanche Peak Steam Electric Station, Unit 2	Texas Utilities Electric Company	Y2K Ready
Cooper Nuclear Station	Nebraska Public Power District	Y2K Ready
Crystal River Unit 3 Nuclear Generating Plant	Florida Power Corporation	Y2K Ready
Davis-Besse Nuclear Power Station, Unit 1	First Energy Services Corporation	Y2K Ready
Diablo Canyon Nuclear Power Plant, Units 1 and 2	Pacific Gas and Electric Company	Y2K Ready
Donald C. Cook Nuclear Plant, Units 1 and 2	Indiana Michigan Power Company	Y2K Ready
Dresden Nuclear Power Station, Units 2 and 3	Commonwealth Edison Company	Y2K Ready
Duane Arnold Energy Center	IES Utilities, Inc.	Y2K Ready
Edwin I. Hatch Nuclear Plant, Units 1 and 2	Southern Nuclear Operating Company, Inc.	Y2K Ready
Enrico Fermi Atomic Power Plant, Unit 2	Detroit Edison Company	Y2K Ready

Table 1 NPP Y2K Readiness Status as of December 1, 1999		
NPP Name	NPP Licensee	Readiness Status/Date
Fort Calhoun Station, Unit 1	Omaha Public Power District	Y2K Ready
Grand Gulf Nuclear Station, Unit 1	Entergy Operations, Inc.	Y2K Ready
H. B. Robinson Plant, Unit 2	Carolina Power and Light Company	Y2K Ready
Hope Creek Nuclear Station, Unit 1	Public Service Electric and Gas Co. of New Jersey	Y2K Ready
Indian Point Unit No. 2	Consolidated Edison Company of New York, Inc.	Y2K Ready
Indian Point Station, Unit 3	Power Authority of the State of New York	Y2K Ready
James A. FitzPatrick Nuclear Power Plant	Power Authority of the State of New York	Y2K Ready
Joseph M. Farley Nuclear Plant, Unit 1	Southern Nuclear Operating Company, Inc.	Y2K Ready
Joseph M. Farley Nuclear Plant, Unit 2	Southern Nuclear Operating Company, Inc.	Y2K Ready
Kewaunee Nuclear Power Plant	Wisconsin Public Service Corporation	Y2K Ready
LaSalle County Station, Units 1 and 2	Commonwealth Edison Company	Y2K Ready
Limerick Generating Station, Unit 1	PECO Energy Company	Y2K Ready
Limerick Generating Station, Unit 2	PECO Energy Company	Y2K Ready
Millstone Nuclear Power Station, Units 2 and 3	Northeast Nuclear Energy Company	Y2K Ready
Monticello Nuclear Generating Plant	Northern States Power Company	Y2K Ready
Nine Mile Point Nuclear Station, Units 1 and 2	Niagara Mohawk Power Corporation	Y2K Ready
North Anna Power Station, Unit 1	Virginia Electric and Power Company	Y2K Ready
North Anna Power Station, Unit 2	Virginia Electric and Power Company	Y2K Ready
Oconee Nuclear Station, Units 1, 2, and 3	Duke Energy Corporation	Y2K Ready
Oyster Creek Nuclear Generating Station	GPU Nuclear Corp.	Y2K Ready
Palisades Nuclear Plant	Consumers Energy Company	Y2K Ready

Table 1 NPP Y2K Readiness Status as of December 1, 1999		
NPP Name	**NPP Licensee**	**Readiness Status/Date**
Palo Verde Nuclear Generating Station, Units 1, 2, and 3	Arizona Public Service Company	Y2K Ready
Peach Bottom Atomic Power Station, Unit 2	PECO Energy Company	Y2K Ready
Peach Bottom Atomic Power Station, Unit 3	PECO Energy Company	Y2K Ready
Perry Nuclear Power Plant, Unit 1	First Energy Nuclear Operating Company	Y2K Ready
Pilgrim Nuclear Power Station, Unit 1	Boston Edison Company	Y2K Ready
Point Beach Nuclear Plant, Units 1 and 2	Wisconsin Electric Power Company	Y2K Ready
Prairie Island Nuclear Generating Plant, Units 1 and 2	Northern States Power Company	Y2K Ready
Quad Cities Nuclear Power Station, Units 1 and 2	Commonwealth Edison Company	Y2K Ready
River Bend Station, Unit 1	Entergy Operations, Inc.	Y2K Ready
Robert Emmet Ginna Nuclear Plant, Unit 1	Rochester Gas and Electric Corp.	Y2K Ready
Salem Nuclear Generating Station, Unit 1	Public Service Electric and Gas Co. of New Jersey	Y2K Ready
Salem Nuclear Generating Station, Unit 2	Public Service Electric and Gas Co. of New Jersey	Y2K Ready
San Onofre Nuclear Generating Station, Units 2 and 3	Southern California Edison Company	Y2K Ready
Seabrook, Unit 1	North Atlantic Energy Service Corporation	Y2K Ready
Sequoyah Nuclear Plant, Units 1 and 2	Tennessee Valley Authority	Y2K Ready
Shearon Harris Nuclear Power Plant, Unit 1	Carolina Power and Light Company	Y2K Ready
South Texas Project Electric Generating Station, Units 1 and 2	South Texas Project Nuclear Operating Company	Y2K Ready
St. Lucie Plant, Units 1 and 2	Florida Power and Light Company	Y2K Ready
Surry Power Station, Units 1 and 2	Virginia Electric and Power Company	Y2K Ready

Table 1 NPP Y2K Readiness Status as of December 1, 1999		
NPP Name	NPP Licensee	Readiness Status/Date
Susquehanna Steam Electric Station, Units 1 and 2	Pennsylvania Power and Light Company	Y2K Ready
Three Mile Island Nuclear Station, Unit 1	GPU Nuclear Corp.	Y2K Ready
Turkey Point Plant, Units 3 and 4	Florida Power and Light Company	Y2K Ready
Vermont Yankee Nuclear Power Station	Vermont Yankee Nuclear Power Corporation	Y2K Ready
Virgil C. Summer Nuclear Station, Unit 1	South Carolina Electric & Gas Company	Y2K Ready
Vogtle Electric Generating Plant, Units 1 and 2	Southern Nuclear Operating Company, Inc.	Y2K Ready
Washington Public Power Supply System Nuclear Project No. 2	Washington Public Power Supply System	Y2K Ready
Waterford Steam Electric Station, Unit 3	Entergy Operations, Inc.	Y2K Ready
Watts Bar Nuclear Plant, Unit 1	Tennessee Valley Authority	Y2K Ready
William B. McGuire Nuclear Station, Units 1 and 2	Duke Energy Corporation	Y2K Ready
Wolf Creek Generating Station	Wolf Creek Nuclear Operating Corporation	Y2K Ready

Table 2 Status of Year 2000 Readiness Activities at Fuel Cycle Facilities as of November 1, 1999

Site	Type of Facility [1]	Is Site Y2K Ready?	Will Site be Operating During Y2K Transition?	Does Site have Plans for Controlled Startup after Y2K Transition?	Systems That Need to be Made Y2K Ready	When Will Site be Y2K Ready?
AlliedSignal	UF6	Yes	No	Yes	N/A	07/01/99
BXW Technologies	HEU	Yes	No	Yes	N/A	11/01/99
Combustion Engineering-Hematite	LEU	Yes	No	Yes	N/A	07/01/99
Framatome Cogema Fuels	LEU	Yes	No	Yes	N/A	07/01/99
General Electric-Wilmington	LEU	Yes	No	Yes	N/A	09/01/99
Nuclear Fuel Services	HEU	Yes	No	Yes	N/A	11/01/99
Siemens Power Corporation	LEU	Yes	No	Yes	N/A	11/01/99
United States Enrichment Corporation	GDP	Yes, for both facilities	Yes, for both facilities	N/A	N/A	07/01/99
Westinghouse Electric Company	LEU	No	No	Yes	Chemical Area Manufacturing Processing System (ChAMPS) [2] Westinghouse Accountability, Tracking, and Traceability System	12/24/99

[1] Legend:
GDP = Gaseous Diffusion Enrichment Facility
LEU = Low Enriched Uranium Fuel Fabrication Facility
HEU = High Enriched Uranium Fuel Fabrication Facility
UF6 = Uranium Hexafluoride Production Facility

[2] Westinghouse:
The current Item Control System (ICS) that will be replaced by ChAMPS will not be Y2K ready until February 2000. If ChAMPS and the backup systems in the contingency plan do not work, then the current ICS would be used next in April 2000. Otherwise, the current ICS will be eliminated in April 2000.

Notes:
I. NRC inspected the Y2K status at the facilities in 1997 and 1998, in conjunction with other safety inspections
II. NRC conducted follow-up Y2K inspections at the Portsmouth GDP in August 1999 and at the Paducah GDP in September 1999
III. NRC will have cognizant staff in the HQ Operations Center to respond to the facilities during the Y2K transition on December 31, 1999
IV. NRC will have cognizant staff in the Region IV IRC to respond to the facilities during the Y2K transition on December 31, 1999
V. NRC will have a resident inspector at each GDP and HEU during the Y2K transition on December 31, 1999

December 20, 1999

MEMORANDUM TO: Chairman Meserve
Commissioner Diaz
Commissioner Dicus
Commissioner McGaffigan
Commissioner Merrifield

FROM: William D. Travers Original signed by William D. Travers
Executive Director for Operations

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