


SOFTWARE RELEASE NOTICE

1. SRN Number: PA-SRN-197		
2. Project Title: TSPA & Technical Integration Code		Project No. 20-1402-762
3. SRN Title: TPA Version 3.2.3		
4. Originator/Requestor: Bruce Mabrito		Date: 07/19/99
5. Summary of Actions		
<input type="checkbox"/> Release of new software		
<input checked="" type="checkbox"/> Release of modified software:		
<input checked="" type="checkbox"/> Enhancements made		
<input checked="" type="checkbox"/> Corrections made		
<input type="checkbox"/> Change of access software		
<input checked="" type="checkbox"/> Software Retirement <i>GW 1/28/2002</i>		
6. Persons Authorized Access		
Name	Read Only/Read-Write	Addition/Change/Delete
Sitakanta Mohanty	RW	
Ron Janetzke	RW	
Tim McCartin (NRC)	RW	
M. Rose Byrne (NRC)	RW	
7. Element Manager Approval: <i>Arden Willmeyer</i>		Date: <i>7/20/99</i>
8. Remarks:		
TPA Version 3.2.3 PC executable only was sent to NRC Headquarters on 07/19/99.		
<i>CD of Executable Only sent to NRC. GW</i>		
<i>SEE TPA 3.2.3 Source Code folder for SCRs. GW</i>		

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SOFTWARE SUMMARY FORM

01. Summary Date: 07/19/99	02. Summary prepared by (Name and phone): Sitakanta Mohanty (210) 522-5185	03. Summary Action: Executable only	
04. Software Date: 07/19/99	05. Short Title: TPA Version 3.2.3		
06. Software Title: TPA - System Performance Assessment Computer Code, Version 3.2.3		07. Internal Software ID: None	
08. Software Type: <input type="checkbox"/> Automated Data System <input checked="" type="checkbox"/> Computer Program <input type="checkbox"/> Subroutine/Module	09. Processing Mode: <input type="checkbox"/> Interactive <input checked="" type="checkbox"/> Batch <input type="checkbox"/> Combination	10. Application Area: a. General: <input type="checkbox"/> Scientific/Engineering <input type="checkbox"/> Auxiliary Analyses <input checked="" type="checkbox"/> Total System PA <input type="checkbox"/> Subsystem PA <input type="checkbox"/> Other b. Specific:	
11. Submitting Organization and Address: CNWRA/SwRI 6220 Culebra Road San Antonio, TX 78228		12. Technical Contact(s) and Phone: Sitakanta Mohanty (210) 522-5185	
13. Software Application: The TPA Code consists of the following modules: UZFLOW, NFENV, EBSREL, UZFT, SZFT, DCAGW, FAULTO, SEISMO, VOLCANO, ASHPLUMO, ASHRMVO, DCAGS, LHS, EXEC.			
14. Computer Platform: Intel/PC	15. Computer Operating System: Windows NT	16. Programming Language(s): FORTRAN	17. Number of Source Program Statements: Approx. 38,000 lines w/o Stand Alone Codes
18. Computer Memory Requirements: 72 Mb	19. Tape Drives: None	20. Disk Units: N/A	21. Graphics: N/A
22. Other Operational Requirements: Uses system environment variables: TPA_TEST and TPA_DATA.			
23. Software Availability: <input checked="" type="checkbox"/> Available <input type="checkbox"/> Limited <input type="checkbox"/> In-House ONLY		24. Documentation Availability: <input type="checkbox"/> Available <input type="checkbox"/> Preliminary <input checked="" type="checkbox"/> In-House ONLY	
25. Software Developer:  Date: 7/20/99			



CENTER FOR NUCLEAR WASTE REGULATORY ANALYSES

QUALITY ASSURANCE

SURVEILLANCE REPORT

PROJECT NO.: 20.01402.159

REPORT NO.: 2000-13

PAGE 1 OF 2

SURVEILLANCE SCOPE: Review of CNWRA Developed Scientific and Engineering Software to determine whether the documentation present in the CNWRA Software Working Records Folders is adequate.

REFERENCE DOCUMENTS: Technical Operating Procedure-018, Development and Control of Scientific and Engineering (S&E) Software; QAP-004, Surveillance Control; Nonconformance Report 2000-03.

STARTING DATE: 3/7/2000

ENDING DATE: 6/9/2000

QA REPRESENTATIVE: B. Mabrito

PERSONS CONDUCTING TEST/EXAM/ACTIVITY: Various CNWRA staff working on Developed S&E software.

SATISFACTORY FINDINGS: During the course of this surveillance, CNWRA Developed S&E software and documentation was checked and contact made with CNWRA staff who worked with the software. In each case, the particular S&E software folder was reviewed for completeness and where no Design Verification Report (DVR) was located, the objective evidence in the folder was compared to the DVR form questions and discussions were held with cognizant CNWRA staff. The list of Developed S&E software reviewed is included in Attachment A.

In each case, key elements of the DVR were compared against that which was included in each software folder in the QA working records. Also, the previous version of the software code documentation was checked to ensure that the earlier DVR had been properly completed. The later version of the software documentation showed the specific changes made through the Software Change Reports. Based on this review, it is clear that although in a few cases no DVR was accomplished, product quality did not suffer. The minor enhancements and "bug" fixes made to TPA Version 3.2.3 and 3DStress Version 1.3.1 and 1.3.2 software were clearly identified and controlled so that the CNWRA product being delivered met the client's requirements.

UNSATISFACTORY FINDINGS: None.

NONCONFORMANCE REPORT NO.: None.

ATTACHMENTS: Attachment A.

RECOMMENDATIONS/ACTIONS: N/A.

APPROVED: 

CENTER DIRECTOR OF QUALITY ASSURANCE

DATE: 6/12/2000**DISTRIBUTION:**

ORIGINAL - CENTER QA DIRECTOR QA Records

ORIGINATOR

PRINCIPAL INVESTIGATORS OF EACH CODE

ELEMENT MANAGERS

B. Sagar, H. Garcia

<u>NAME OF S&E SOFTWARE</u>	<u>DESIGN VERIFICATION REPORT</u>		<u>NOTES</u>
3DStress Version 1.2	Present	Dated 5/8/97	
3DStress Version 1.3	Present	Dated 8/7/98	
3DStress Version 1.3.1	Not Present		Software Release Notice Dated 7/15/99
3DStress Version 1.3.2	Not Present		Software Release Notice Dated 9/16/99
ASHPLUME Version 1.0	Present	Dated 6/23/97	
BREATH Version 1.1	Not Present		
BREATH Version 1.2	Present	Dated 9/17/97	Software Release Notice Dated 9/21/95
EBSPAC Version 1.0	Present	Dated 5/15/97	
EBSPAC Version 1.1	Present	Dated 6/17/97	
FAULTING Version 1.0	Not Present		Software Release Notice Dated 1/21/98 Module put under TPA Code and controlled in that manner.
GEOINVRT Version 1.0	Software Code Not Finished		Software Requirements Description only.
HAZINFO Version 1.0	Software Code Not Finished		Software Requirements Description only.
MULTIFLO Version 1.2	Present	Dated 3/2/2000	
MULTIFLO Version 2.0	Software Code Not Finished		Software Requirements Description only.
PVHA Version 1.0	Present	Dated 2/15/2000	
SUFLAT Version 1.0	Not Present		Element Manager (EM) determined that this software has not been used for regulatory reviews and will not be used for such work. EM requested the folder be archived in QA Records to reflect previous efforts on code.
TECTRAN Version 1.0	Software Code Not Finished		Software Requirements Description only.
TPA Version 3.2	Present	Dated 7/17/98	
TPA Version 3.2 (PP) Beta	Present	Dated 11/25/98	
TPA Version 3.2.3	Not Present		Software Release Notice Dated 7/14/99
TPA Version 3.3	Present	Dated 11/24/99	
TPA Version 4.0	Present	Dated 3/31/2000	

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Date: 8/20/99
Sender: <muller@wave.space.swri.edu >
To: bmabrito@swri.org
bcc: Bruce Mabrito
Priority: Normal
Subject: TPA ver 3.2.3 tests concluded successfully

To be put
with TPA letter -

8/20/99

[Signature]

I Ran tpa.exe from 6 CDROMS for TPA Version 3.2.3, release Aug 19, 1999, Windows NT.
All 6 tpa.exe's ran successfully. Especially tested for 401 total timesteps.
Michael Muller



RFC822.TXT

"Correction" of
TPA 3.2.3

Mike Muller
checked the CDs
before they were
sent out.

[Signature]

8/23/99

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Michael Muller



RFC822.TXT

*Example of A
Quality Control Check
at the CDROM.*

*Independent checker
(Mike Muller / ON 15/SWRI)
checking the work of
Ron Jarvizek in*

Div 20.

Sam Muller
8/24/99

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CNWRA *A center of excellence in earth sciences and engineering*

A Division of Southwest Research Institute
6220 Culebra Road • San Antonio, Texas, U.S.A. 78228-5166
(210) 522-5160 • Fax (210) 522-5155

August 23, 1999
Contract No. NRC-02-97-009
Account No. 20-1402-762

U.S. Nuclear Regulatory Commission
ATTN: Mr. James Firth
Office of Nuclear Material Safety and Safeguards
Division of Waste Management
Performance Assessment and HLW Integration Branch
Mail Stop 7C-18
Washington, DC 20555

Subject: Re-Transmittal of the TPA Version 3.2.3 Executable File on CD Media

Dear Mr. Firth:

Attached herewith are 3 CDs containing a PC executable file for the TPA Version 3.2.3 code. The previous transmission of Version 3.2.3 dated July 20, 1999 contained an error and should be destroyed. This version of the code has the following modifications:

- (i) Elimination of the undue influence of the mixing zone source length on the dispersion along the NEFTRAN transport legs;
- (ii) Increasing the number of time intervals for representing TPA outputs from 201 to 401;
- (iii) Improvement to the interpolation procedure so that the time of release from the saturated and unsaturated zones is consistent with the time of release from the EBS.

If you have any questions regarding the installation and use of the software or the technical content of the guide please contact Dr. Sitakanta Mohanty at (210) 522-5185 or Mr. Ron Janetzke at (210) 522-3318.

Sincerely yours,



Gordon W. Wittmeyer, Ph.D.
Manager, Performance Assessment

GWW/cg

d:\wpfil\gordon\letters\Re-Transmittal of TPA 3.2.3 CDs.wpd

cc:	J. Linehan	B. Reamer	W. Patrick
	D. DeMarco	K. McConnell	CNWRA Directors
	B. Stiltenspole	T. McCartin	CNWRA Element Managers
	B. Meehan	R. Codell	S. Mohanty
	J. Greeves		R. Janetzke
	J. Holonich		R. Rice



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CNWRA *A center of excellence in earth sciences and engineering*

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(210) 522-5160 • Fax (210) 522-5155

July 20, 1999
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Account No. 20-1402-762

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Manager, Performance Assessment

GWW/cg

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