

TSPA-SR GoldSim Model files.

NRC Contact: David Esh, NMSS/DWM/EPAB, (301) 415-6705

Description of CD Contents:

One CD containing a GoldSim model file and supporting files from simulations for TSPA-SR. Need GoldSim software package to open or otherwise use. Capture of screen images of CD contents follow. Printout of Readme\_DTN\_MO0012MWDNM601.033.doc follows.

CD Label Information:

MO0012MWDNM601.033

Disk 1 of 1

TSPA\_SR Model Case SR00\_042nm6  
Groundwater Protection Base Case  
Nominal Scenario  
No Backfill  
300 Realizations  
1,000,000 yrs

D:\				
File Edit View Help				
Name	Size	Type	Modified	Attributes
Run_Files		File Folder	01/24/2001 11:03 AM	R
SR00_042nm6		File Folder	01/24/2001 11:03 AM	R
Readme_DTN_M00012MWDNM601.033.doc	28KB	Microsoft Word Doc...	01/23/2001 2:29 PM	R
3 object(s) 27.5KB				

D:\SR00_042nm6				
File Edit View Help				
Name	Size	Type	Modified	Attributes
SR00_042nm6.zip	237,888KB	WinZip File	01/23/2001 2:41 PM	R
SR00_042nm6_zip.txt	3KB	Text Document	01/23/2001 2:41 PM	R
2 object(s) 232MB				

D:\Run_Files				
File Edit View Help				
Name	Size	Type	Modified	Attributes
nominal_multi_files_zip_content.txt	10KB	Text Document	01/23/2001 2:32 PM	R
Nominal_Multi_Run_Files.zip	87,259KB	WinZip File	01/23/2001 2:32 PM	R
Readme_Nominal.doc	516KB	Microsoft Word Doc...	01/23/2001 2:32 PM	R
3 object(s) 85.7MB				

Contents for CD 1 of 1.

Volume in drive J is TSPA\_Storage(3)  
Volume Serial Number is 2020-07AD

Directory of SR00\_042nm6.zip

07/29/00	11:43a	1,630	fm_pchm1.dat
08/22/00	09:42a	2,030,069	ptrk.multrlz.0100
08/22/00	09:43a	2,030,063	ptrk.multrlz.0200
08/22/00	09:48a	2,030,060	ptrk.multrlz.0300
10/31/00	03:46p	746,226,492	SR00_042nm6.gsm
08/24/00	09:13a	7,449,485	SZ_01_01
08/24/00	09:13a	7,449,485	SZ_01_02
08/24/00	09:13a	7,408,815	SZ_01_03
08/24/00	09:13a	7,408,815	SZ_01_04
08/24/00	09:13a	7,470,237	SZ_02_01
08/24/00	09:13a	7,470,237	SZ_02_02
08/24/00	09:14a	7,470,237	SZ_02_03
08/24/00	09:14a	7,470,237	SZ_02_04
08/24/00	09:14a	18,072,671	SZ_03_01
08/24/00	09:14a	18,072,671	SZ_03_02
08/24/00	09:14a	18,072,671	SZ_03_03
08/24/00	09:14a	18,072,671	SZ_03_04
08/24/00	09:14a	7,526,221	SZ_04_01
08/24/00	09:14a	7,526,221	SZ_04_02
08/24/00	09:14a	7,526,221	SZ_04_03
08/24/00	09:14a	7,526,221	SZ_04_04
08/24/00	09:15a	10,444,684	SZ_05_01
08/24/00	09:15a	10,444,684	SZ_05_02
08/24/00	09:15a	10,444,684	SZ_05_03
08/24/00	09:15a	10,444,684	SZ_05_04
08/24/00	09:15a	7,471,365	SZ_06_01
08/24/00	09:15a	7,471,365	SZ_06_02
08/24/00	09:15a	7,471,365	SZ_06_03
08/24/00	09:15a	7,471,365	SZ_06_04
08/24/00	09:15a	6,909,508	SZ_07_01
08/24/00	09:15a	6,468,507	SZ_07_02
08/24/00	09:15a	6,468,507	SZ_07_03
08/24/00	09:15a	6,468,507	SZ_07_04
08/24/00	09:15a	19,904,541	SZ_08_01
08/24/00	09:16a	20,071,877	SZ_08_02
08/24/00	09:16a	20,071,877	SZ_08_03
08/24/00	09:16a	20,071,877	SZ_08_04
08/24/00	03:01p	401	sz_convolute2.dat
05/10/00	02:17p	176,012	UZ_Params_Multi.sr

# Contents of Nominal\_Multi\_Run\_Files.zip

01/05/00	11:39a	3,715	afm_pchl1.dpdp
02/03/00	03:46p	473,088	ashdll.dll
03/13/00	08:36a	77	bf2.txt
03/13/00	08:36a	77	bf3.txt
03/13/00	08:36a	77	chl.txt
03/13/00	08:36a	77	ch6.txt
03/13/00	08:36a	77	chv.txt
03/13/00	08:36a	77	chz.txt
01/11/00	01:01p	265,450	CSNF_bf_high_pf_bin2.dat
01/11/00	01:02p	1,856,578	CSNF_bf_high_pf_bin3.dat
01/11/00	01:01p	6,023,818	CSNF_bf_high_pf_bin4.dat
01/11/00	12:58p	3,656,068	CSNF_bf_high_pf_bin5.dat
01/11/00	01:26p	6,744,598	CSNF_bf_low_pf_bin1.dat
01/11/00	01:23p	4,673,647	CSNF_bf_low_pf_bin2.dat
05/18/00	11:48a	307,639	CSNF_bf_mean_pf_bin1.dat
05/18/00	11:48a	1,332,229	CSNF_bf_mean_pf_bin2.dat
05/18/00	11:49a	2,547,100	CSNF_bf_mean_pf_bin3.dat
05/18/00	11:50a	4,889,020	CSNF_bf_mean_pf_bin4.dat
05/18/00	11:50a	44,173	CSNF_bf_mean_pf_bin5.dat
05/17/00	10:07a	59,958	CSNF_nbf_high_pf_bin2.dat
05/17/00	10:08a	405,342	CSNF_nbf_high_pf_bin3.dat
05/17/00	10:08a	1,339,158	CSNF_nbf_high_pf_bin4.dat
05/17/00	10:09a	797,630	CSNF_nbf_high_pf_bin5.dat
05/17/00	10:13a	1,539,566	CSNF_nbf_low_pf_bin1.dat
05/17/00	10:14a	1,061,998	CSNF_nbf_low_pf_bin2.dat
05/17/00	10:14a	17,318	CSNF_nbf_mean_pf_bin1.dat
05/17/00	10:14a	435,190	CSNF_nbf_mean_pf_bin2.dat
05/17/00	10:15a	725,142	CSNF_nbf_mean_pf_bin3.dat
05/17/00	10:16a	1,411,646	CSNF_nbf_mean_pf_bin4.dat
05/17/00	10:16a	13,054	CSNF_nbf_mean_pf_bin5.dat
05/25/00	11:14a	4,106	debug4.txt
09/29/00	03:40p	7,404	dir.txt
02/15/00	08:48p	291	fehmn.files
03/03/00	09:40a	1,277	fehmn.gold
03/03/00	09:40a	1,277	fehmn.gold.multi
05/04/00	07:24p	688	fehmn_real.bat
05/26/00	06:39a	4,714,496	fehmn_sr.dll
05/04/00	07:24p	2,236	fehmn_ts0.bat
10/11/99	05:05p	15,937,540	ff0100.ini
10/11/99	05:06p	15,937,540	ff0200.ini
10/11/99	07:55p	15,937,540	ff0300.ini
10/14/99	08:40p	15,938,094	ff1100.ini
10/14/99	08:43p	15,938,094	ff1200.ini
10/14/99	08:43p	15,938,094	ff1300.ini
10/14/99	08:45p	15,938,094	ff2100.ini
10/14/99	08:46p	15,938,094	ff2200.ini
10/14/99	08:47p	15,938,094	ff2300.ini
06/24/00	03:28p	433	File_Copy.bat
05/04/00	04:42p	2,528,722	fm_pchml.chk
06/01/00	09:46a	1,622	fm_pchml.dat
05/04/00	04:42p	3,908,630	fm_pchml.fin
01/04/00	09:20a	2,335,583	fm_pchml.grid
05/04/00	04:51p	96,157	fm_pchml.his
01/04/00	09:20a	29,301,805	fm_pchml.stor

05/04/00	04:51p	14,837	fm_pchm1.trc
01/04/00	09:19a	980,781	fm_pchm1.zone
03/03/00	10:12a	1,082,426	fm_pchm1.zone2
03/03/00	10:12a	1,082,424	fm_pchm1.zone2.0100
03/03/00	10:12a	1,082,426	fm_pchm1.zone2.0200
03/03/00	10:12a	1,082,424	fm_pchm1.zone2.0300
04/26/00	11:00a	271,872	GVP.dll
01/11/00	01:21p	265,450	HLW_bf_high_pf_bin2.dat
01/11/00	01:21p	1,856,578	HLW_bf_high_pf_bin3.dat
01/11/00	01:20p	6,023,818	HLW_bf_high_pf_bin4.dat
01/11/00	01:18p	3,656,068	HLW_bf_high_pf_bin5.dat
01/11/00	01:32p	6,744,598	HLW_bf_low_pf_bin1.dat
01/11/00	01:29p	4,673,647	HLW_bf_low_pf_bin2.dat
05/18/00	11:51a	307,639	HLW_bf_mean_pf_bin1.dat
05/18/00	12:26p	1,332,229	HLW_bf_mean_pf_bin2.dat
05/18/00	12:27p	2,547,100	HLW_bf_mean_pf_bin3.dat
05/18/00	12:28p	4,889,020	HLW_bf_mean_pf_bin4.dat
05/18/00	12:28p	44,173	HLW_bf_mean_pf_bin5.dat
05/17/00	10:16a	59,958	HLW_nbf_high_pf_bin2.dat
05/17/00	10:17a	405,342	HLW_nbf_high_pf_bin3.dat
05/17/00	10:17a	1,339,158	HLW_nbf_high_pf_bin4.dat
05/17/00	10:17a	797,630	HLW_nbf_high_pf_bin5.dat
05/17/00	10:18a	1,539,566	HLW_nbf_low_pf_bin1.dat
05/17/00	10:19a	1,061,998	HLW_nbf_low_pf_bin2.dat
05/17/00	10:19a	17,318	HLW_nbf_mean_pf_bin1.dat
05/17/00	10:19a	435,190	HLW_nbf_mean_pf_bin2.dat
05/17/00	10:20a	725,142	HLW_nbf_mean_pf_bin3.dat
05/17/00	10:20a	1,411,646	HLW_nbf_mean_pf_bin4.dat
05/17/00	10:20a	13,054	HLW_nbf_mean_pf_bin5.dat
05/17/00	09:38a	617	master_bf.in
05/17/00	09:39a	639	master_nbf.in
04/26/00	12:50p	388,608	MFD.dll
06/24/00	03:32p	228	Network_File_Delete.bat
01/04/00	09:22a	3,349	pchl.rock
03/13/00	08:36a	77	pp1.txt
03/13/00	08:36a	77	pp2.txt
03/13/00	08:36a	77	pp3.txt
03/13/00	08:36a	77	pp4.txt
05/17/00	12:51p	2,011,054	ptrk.multrlz
05/26/00	03:15p	2,011,157	ptrk.multrlz.0100
05/26/00	03:16p	2,011,151	ptrk.multrlz.0200
05/26/00	03:18p	2,011,148	ptrk.multrlz.0300
04/06/00	01:06p	438,784	SCCD.dll
05/17/00	10:04a	364,611	seepagedllv2.dll
01/17/00	11:49a	395	SeepFlowMean.dat
01/17/00	11:52a	388	SeepFlowSD.dat
01/17/00	11:54a	337	SeepFrac.dat
05/19/00	12:30p	880	seep_debug.dat
05/04/00	04:41p	284,440	seep_output.dat
04/28/00	11:38a	262,201	soilexp.dll
03/17/00	08:52a	455,680	szconv_sr.dll
01/28/00	03:15p	7,454,385	SZ_01_01
01/28/00	03:15p	7,454,385	SZ_01_02
01/28/00	03:15p	7,413,715	SZ_01_03
01/28/00	03:15p	7,413,715	SZ_01_04
01/28/00	03:16p	7,475,137	SZ_02_01
01/28/00	03:16p	7,475,137	SZ_02_02

01/28/00	03:16p	7,475,137	SZ_02_03
01/28/00	03:16p	7,475,137	SZ_02_04
04/12/00	09:31a	16,447,812	SZ_03_01
04/12/00	09:40a	16,447,812	SZ_03_02
04/12/00	09:45a	16,447,812	SZ_03_03
04/12/00	09:49a	16,447,812	SZ_03_04
03/08/00	02:31p	7,531,121	SZ_04_01
03/08/00	02:32p	7,531,121	SZ_04_02
03/08/00	02:36p	7,531,121	SZ_04_03
03/08/00	02:36p	7,531,121	SZ_04_04
01/28/00	03:20p	10,449,584	SZ_05_01
01/28/00	03:20p	10,625,985	SZ_05_02
01/28/00	03:20p	9,743,980	SZ_05_03
01/28/00	03:20p	9,743,980	SZ_05_04
01/28/00	03:21p	7,476,265	SZ_06_01
01/28/00	03:21p	7,476,265	SZ_06_02
01/28/00	03:21p	7,476,265	SZ_06_03
01/28/00	03:21p	7,476,265	SZ_06_04
04/12/00	11:44a	6,963,312	SZ_07_01
04/12/00	11:44a	6,963,312	SZ_07_02
04/12/00	11:45a	6,963,312	SZ_07_03
04/12/00	11:45a	6,963,312	SZ_07_04
01/28/00	03:17p	19,909,441	SZ_08_01
01/28/00	03:17p	20,076,777	SZ_08_02
01/28/00	03:17p	20,076,777	SZ_08_03
01/28/00	03:17p	20,076,777	SZ_08_04
06/15/00	02:23p	382	sz_convolute2.dat
03/13/00	08:37a	77	tsw4.txt
03/13/00	08:37a	77	tsw5.txt
03/13/00	08:37a	77	tsw6.txt
03/13/00	08:37a	77	tsw7.txt
03/13/00	08:37a	77	tsw8.txt
03/13/00	08:37a	77	tsw9.txt
05/01/00	08:25a	79,304	UZ_Params_Multi.sr
05/26/00	08:56a	778,752	wapdeg.dll
05/25/00	11:13a	41,999	WD4DLL.ina
05/04/00	04:42p	782,594	WD4DLL.oua
05/04/00	04:42p	30,430	WD4DLL.out
05/25/00	11:03a	363	WD4DLL.wap
05/25/00	11:13a	9,119	WDdA22SR00.cdf
05/25/00	11:13a	9,119	WDdA22x0p5.cdf
05/25/00	11:13a	9,119	WDdA22x2p5.cdf
05/25/00	11:13a	9,119	WDdTi7Sr00.cdf
05/12/00	10:13a	12,524	WDgA22SR00.cdf
05/12/00	10:13a	12,524	WDgA22x0p5.cdf
05/12/00	10:13a	12,524	WDgA22x2p5.cdf
05/24/00	11:27a	12,526	WDgTi7SR00.cdf
02/16/00	07:59a	304,964	WDHLW_high_bin2.ou
05/17/00	11:40a	355,504	WDHLW_nbf_high_bin2.ou
05/25/00	11:13a	9,119	WDiA22x2p5.cdf
01/14/00	01:06p	1,436	WDKIinM.fil
01/14/00	08:26p	1,439	WDKIinO.fil
05/25/00	11:13a	13,458	WDKISCCM.fil
05/25/00	11:13a	13,458	WDKISCCO.fil
11/24/99	02:55p	775	WDMFDND.cdf
05/25/00	11:13a	4,732	WDMFDNDM.cdf
05/25/00	11:13a	5,112	WDMFDNDO.cdf

05/25/00	11:13a	10,329	WDMFDSIZEM.cdf
05/25/00	11:13a	10,329	WDMFDSIZEO.cdf
01/17/00	09:36a	1,463	WDNDTI.cdf
05/25/00	11:13a	9,119	WDNDTI7SR00.cdf
02/24/00	06:24p	411	WDRHCrit.fil
05/25/00	11:13a	13,448	WDStressM.fil
05/25/00	11:13a	13,448	WDStressO.fil
177 File(s)		619,542,478	bytes
		28,067,717,120	bytes free

---

Title

---

Nominal 1,000,000-Year Base Case

Contained in TDR-WIS-PA-000001 REV 00 ICN 01, Figure 4.1-19

Nominal Scenario, 1,000,000 years, no backfill. Constant glacial transition climate after 2,000 years.

---

Contents of DTN MO0012MWDNM601.033

---

12/07/00 02:47p <DIR> Run\_Files  
12/07/00 02:46p <DIR> SR00\_042nm6

---

Description of individual model files:

---

Run Number	Run Name	Scenario	Description
SR00_042nm6	300 Realization 1,000,000-Year Base Case, with Groundwater Protection Results	Nominal	300 realizations 1e6, additional radionuclides transported through FEHM ( <sup>230</sup> Th and <sup>232</sup> Th) for groundwater protection; additional nuclides included in dose ( <sup>230</sup> Th, <sup>226</sup> Ra, <sup>210</sup> Pb); total Ra conc. in groundwater; gross alpha activity in groundwater; additional biosphere dose conversion factors (BDCFs) required;  Fixed several errata: Set FEHM PTRK file to decay w/ingrowth for <sup>230</sup> Th, rather than just simple decay of <sup>234</sup> U. Used new SZ curves to eliminate mass generation in the SZ for select RNs over several realizations. Fixed units for Pu242 BDCF.

---

Details

---

Model results/output can be viewed and exported using just the .gsm input file and the GoldSim code. Additional information supplied in CRWMS M&O 2000, *Total System Performance Assessment (TSPA) Model for Site Recommendation*, MDL-WIS-PA-000002 REV 00 (DIRS# 148384)

- Software used -

GoldSim Version 6.04.007, STN 10344-6.04.007-00

WAPDEG Version 4.0, STN 10000-4.0-00



SZ\_Convolute Version 2.0, STN 10207-2.0-00

ASHPLUME Version 1.4LV-dll, STN 10022-1.4LV-dll-00

FEHM Version 2.10, STN 10086-2.10-00

GVP Version 1.02, STN 10341-1.02-00

MFD Version 1.01, STN 10342-1.01-00

SCCD Version 2.0, STN 10343-2.0-00

SEEPDLL Version 1.0, Software Routine documented in Attachment II of MDL-WIS-PA-000002 REV 00

SOILEXP Version 1.0, Software Routine documented in Attachment III of MDL-WIS-PA-000002 REV 00

**- Model Constraints -**

Multi-realization model runs should be performed on Windows NT 4.0 OS (Service Pack 4 or higher)

**- Model Limitations -**

Model valid for 0 to 1,000,000 year simulations.

Model results are valid within the range of model input detailed within:

- CRWMS M&O 2000, *Total System Performance Assessment for the Site Recommendation*, TDR-WIS-PA-000001 REV 00 ICN 01 (ACC: MOL.20001220.0045, DIRS# 153246); and
- CRWMS M&O 2000, *Total System Performance Assessment (TSPA) Model for Site Recommendation*, MDL-WIS-PA-000002 REV 00 (DIRS# 148384), and the associated supporting AMRs.

---

**Method for re-running a model case**

---

The Run\_Files directory contains all the basic supporting files necessary to run the TSPA\_SR Goldsim model (\*.gsm file) for the number of realizations indicated for the particular case. For certain cases, it may have been necessary to replace one or more of these supporting files to complete the desired sensitivity or base case run. For each model case (i.e., in each SR00\_\*\*\*\*\* directory), any supporting files that were modified from their original state were placed into the SR00\_\*\*\*\*\*.zip archive along with the .gsm file. In order to re-run such a model case, these files should be used instead of the original ones found in the \*Run\_Files.zip archive. As an example, 300 realizations requires a UZ\_Params\_Multi.sr file with 300 sampled values, whereas the \*Run\_Files.zip archive contains the basic supporting file UZ\_Params\_Multi.sr with only 100 sampled values.

Therefore, in order to run the model, you need to:

1) unzip the \*Run\_Files.zip archive

2) Next, unzip the zip archive found within the SR00\_\*\*\*\*\* model file directory (this archive contains the .gsm file and any specific files that are necessary to run the model), in the SAME DIRECTORY as you unzipped the Run Files.

**Note about step 2:**

- a) any files zipped with the model file should be used to **OVERWRITE** the files with the same name obtained from the \*Run\_Files.zip archive.
- b) If no additional files are contained within model file zip archive (only the .gsm file exists), then you will not overwrite any of the files obtained from the \*Run\_Files.zip archive.

### Support files required for the Nominal Scenario, Multiple Realizations

Date	Time	File size	File name	Description
<b>Seepage files</b>				
5/17/00	11:04a	364,611	seepagedllv2.dll	seepage DLL
1/11/00	02:01p	265,450	CSNF_bf_high_pf_bin2.dat	Seepage DLL input files for the thermohydrology, for civil spent nuclear fuel, in the backfill case
1/11/00	02:02p	1,856,578	CSNF_bf_high_pf_bin3.dat	
1/11/00	02:01p	6,023,818	CSNF_bf_high_pf_bin4.dat	
1/11/00	01:58p	3,656,068	CSNF_bf_high_pf_bin5.dat	
1/11/00	02:26p	6,744,598	CSNF_bf_low_pf_bin1.dat	
1/11/00	02:23p	4,673,647	CSNF_bf_low_pf_bin2.dat	
5/18/00	12:48p	307,639	CSNF_bf_mean_pf_bin1.dat	
5/18/00	12:48p	1,332,229	CSNF_bf_mean_pf_bin2.dat	
5/18/00	12:49p	2,547,100	CSNF_bf_mean_pf_bin3.dat	
5/18/00	12:50p	4,889,020	CSNF_bf_mean_pf_bin4.dat	
5/18/00	12:50p	44,173	CSNF_bf_mean_pf_bin5.dat	
5/17/00	11:07a	59,958	CSNF_nbf_high_pf_bin2.dat	Seepage DLL input files for the thermohydrology, for civil spent nuclear fuel, in the no-backfill case
5/17/00	11:08a	405,342	CSNF_nbf_high_pf_bin3.dat	
5/17/00	11:08a	1,339,158	CSNF_nbf_high_pf_bin4.dat	
5/17/00	11:09a	797,630	CSNF_nbf_high_pf_bin5.dat	
5/17/00	11:13a	1,539,566	CSNF_nbf_low_pf_bin1.dat	
5/17/00	11:14a	1,061,998	CSNF_nbf_low_pf_bin2.dat	
5/17/00	11:14a	17,318	CSNF_nbf_mean_pf_bin1.dat	
5/17/00	11:14a	435,190	CSNF_nbf_mean_pf_bin2.dat	
5/17/00	11:15a	725,142	CSNF_nbf_mean_pf_bin3.dat	
5/17/00	11:16a	1,411,646	CSNF_nbf_mean_pf_bin4.dat	
5/17/00	11:16a	13,054	CSNF_nbf_mean_pf_bin5.dat	
1/11/00	02:21p	265,450	HLW_bf_high_pf_bin2.dat	Seepage DLL input files for thermal hydrology, for high level waste, in the backfill case
1/11/00	02:21p	1,856,578	HLW_bf_high_pf_bin3.dat	
1/11/00	02:20p	6,023,818	HLW_bf_high_pf_bin4.dat	
1/11/00	02:18p	3,656,068	HLW_bf_high_pf_bin5.dat	
1/11/00	02:32p	6,744,598	HLW_bf_low_pf_bin1.dat	
1/11/00	02:29p	4,673,647	HLW_bf_low_pf_bin2.dat	
5/18/00	12:51p	307,639	HLW_bf_mean_pf_bin1.dat	
5/18/00	01:26p	1,332,229	HLW_bf_mean_pf_bin2.dat	
5/18/00	01:27p	2,547,100	HLW_bf_mean_pf_bin3.dat	
5/18/00	01:28p	4,889,020	HLW_bf_mean_pf_bin4.dat	
5/18/00	01:28p	44,173	HLW_bf_mean_pf_bin5.dat	
5/17/00	11:16a	59,958	HLW_nbf_high_pf_bin2.dat	Seepage DLL input files for thermal hydrology, for high level waste, in the no-backfill case
5/17/00	11:17a	405,342	HLW_nbf_high_pf_bin3.dat	
5/17/00	11:17a	1,339,158	HLW_nbf_high_pf_bin4.dat	
5/17/00	11:17a	797,630	HLW_nbf_high_pf_bin5.dat	
5/17/00	11:18a	1,539,566	HLW_nbf_low_pf_bin1.dat	
5/17/00	11:19a	1,061,998	HLW_nbf_low_pf_bin2.dat	
5/17/00	11:19a	17,318	HLW_nbf_mean_pf_bin1.dat	
5/17/00	11:19a	435,190	HLW_nbf_mean_pf_bin2.dat	
5/17/00	11:20a	725,142	HLW_nbf_mean_pf_bin3.dat	
5/17/00	11:20a	1,411,646	HLW_nbf_mean_pf_bin4.dat	

5/17/00	11:20a	13,054	HLW_nbf_mean_pf_bin5.dat	Seepage DLL input files for thermal hydrology
5/17/00	10:38a	617	master_bf.in	
5/17/00	10:39a	639	master_nbf.in	
1/17/00	12:49p	395	SeepFlowMean.dat	
1/17/00	12:52p	388	SeepFlowSD.dat	
1/17/00	12:54p	337	SeepFrac.dat	
5/19/00	01:30p	880	seep_debug.dat	Seepage DLL output files
5/4/00	05:41p	284,440	seep_output.dat	
WAPDEG files				
5/26/00	09:56a	778,752	wapdeg.dll	the waste package degradation (WAPDEG) DLL
4/26/00	12:00p	271,872	GVP.dll	gaussian variance partitioning DLL, supporting WAPDEG
4/26/00	01:50p	388,608	MFD.dll	manufacturing defect DLL, supporting WAPDEG
4/6/00	02:06p	438,784	SCCD.dll	stress corrosion cracking DLL, supporting WAPDEG
5/25/00	12:14p	4,106	debug4.txt	WAPDEG run log
5/25/00	12:13p	41,999	WD4DLL.ina	WAPDEG model files
5/4/00	05:42p	782,594	WD4DLL.oua	
5/4/00	05:42p	30,430	WD4DLL.out	
5/25/00	12:03p	363	WD4DLL.wap	
5/25/00	12:13p	9,119	WDdA22SR00.cdf	
5/25/00	12:13p	9,119	WDdA22x0p5.cdf	
5/25/00	12:13p	9,119	WDdA22x2p5.cdf	
5/25/00	12:13p	9,119	WDdTi7Sr00.cdf	
5/12/00	11:13a	12,524	WDgA22SR00.cdf	
5/12/00	11:13a	12,524	WDgA22x0p5.cdf	
5/12/00	11:13a	12,524	WDgA22x2p5.cdf	
5/24/00	12:27p	12,526	WDgTi7SR00.cdf	
2/16/00	08:59a	304,964	WDHLW_high_bin2.ou	
5/17/00	12:40p	355,504	WDHLW_nbf_high_bin2.ou	
5/25/00	12:13p	9,119	WDiA22x2p5.cdf	
1/14/00	02:06p	1,436	WDKlinM.fil	
1/14/00	09:26p	1,439	WDKlinO.fil	
5/25/00	12:13p	13,458	WDKISCCM.fil	
5/25/00	12:13p	13,458	WDKISCCO.fil	
11/24/99	03:55p	775	WDMFDND.cdf	
5/25/00	12:13p	4,732	WDMFDNDM.cdf	
5/25/00	12:13p	5,112	WDMFDNDO.cdf	
5/25/00	12:13p	10,329	WDMFDSizeM.cdf	
5/25/00	12:13p	10,329	WDMFDSizeO.cdf	
1/17/00	10:36a	1,463	WDndTi.cdf	
5/25/00	12:13p	9,119	WDndTi7SR00.cdf	
2/24/00	07:24p	411	WDRHcrit.fil	
5/25/00	12:13p	13,448	WDStressM.fil	
5/25/00	12:13p	13,448	WDStressO.fil	
FEHMN files				

5/26/00	07:39a	4,714,496	fehmn_sr.dll	FEHMN DLL
1/5/00	12:39p	3,715	afm_pch1.dpdp	FEHMN input files
3/13/00	09:36a	77	bf2.txt	
3/13/00	09:36a	77	bf3.txt	
3/13/00	09:36a	77	ch1.txt	
3/13/00	09:36a	77	ch6.txt	
3/13/00	09:36a	77	chv.txt	
3/13/00	09:36a	77	chz.txt	
2/15/00	09:48p	291	fehmn.files	
3/3/00	10:40a	1,277	fehmn.gold	
3/3/00	10:40a	1,277	fehmn.gold.multi	
5/4/00	05:42p	2,528,722	fm_pchm1.chk	
6/1/00	10:46a	1,622	fm_pchm1.dat	
5/4/00	05:42p	3,908,630	fm_pchm1.fin	
1/4/00	10:20a	2,335,583	fm_pchm1.grid	
5/4/00	05:51p	96,157	fm_pchm1.his	
1/4/00	10:20a	29,301,805	fm_pchm1.stor	
5/4/00	05:51p	14,837	fm_pchm1.trc	
1/4/00	10:22a	3,349	pch1.rock	
3/13/00	09:36a	77	pp1.txt	
3/13/00	09:36a	77	pp2.txt	
3/13/00	09:36a	77	pp3.txt	
3/13/00	09:36a	77	pp4.txt	
3/13/00	09:37a	77	tsw4.txt	
3/13/00	09:37a	77	tsw5.txt	
3/13/00	09:37a	77	tsw6.txt	
3/13/00	09:37a	77	tsw7.txt	
3/13/00	09:37a	77	tsw8.txt	
3/13/00	09:37a	77	tsw9.txt	
10/11/99	06:05p	15,937,540	ff0100.ini	Flow field input files
10/11/99	06:06p	15,937,540	ff0200.ini	
10/11/99	08:55p	15,937,540	ff0300.ini	
10/14/99	09:40p	15,938,094	ff1100.ini	
10/14/99	09:43p	15,938,094	ff1200.ini	
10/14/99	09:43p	15,938,094	ff1300.ini	
10/14/99	09:45p	15,938,094	ff2100.ini	
10/14/99	09:46p	15,938,094	ff2200.ini	
10/14/99	09:47p	15,938,094	ff2300.ini	
1/4/00	10:19a	980,781	fm_pchm1.zone	Input zone files for the FEHMN DLL
3/3/00	11:12a	1,082,426	fm_pchm1.zone2	
3/3/00	11:12a	1,082,424	fm_pchm1.zone2.0100	
3/3/00	11:12a	1,082,426	fm_pchm1.zone2.0200	
3/3/00	11:12a	1,082,424	fm_pchm1.zone2.0300	
5/17/00	01:51p	2,011,054	ptrk.multriz	FEHMN particle tracking files
5/26/00	04:15p	2,011,157	ptrk.multriz.0100	
5/26/00	04:16p	2,011,151	ptrk.multriz.0200	
5/26/00	04:18p	2,011,148	ptrk.multriz.0300	

5/1/00	09:25a	79,304	UZ_Params_Multi.sr	input file containing the unsaturated zone transport parameters
5/4/00	08:24p	688	fehmn_real.bat	batch file
5/4/00	08:24p	2,236	fehmn_ts0.bat	
SZ files				
3/17/00	09:52a	455,680	szconv_sr.dll	saturated zone (SZ) convolution DLL
1/28/00	04:15p	7,454,385	SZ_01_01	Saturated zone breakthrough curves input files
1/28/00	04:15p	7,454,385	SZ_01_02	
1/28/00	04:15p	7,413,715	SZ_01_03	
1/28/00	04:15p	7,413,715	SZ_01_04	
1/28/00	04:16p	7,475,137	SZ_02_01	
1/28/00	04:16p	7,475,137	SZ_02_02	
1/28/00	04:16p	7,475,137	SZ_02_03	
1/28/00	04:16p	7,475,137	SZ_02_04	
4/12/00	10:31a	16,447,812	SZ_03_01	
4/12/00	10:40a	16,447,812	SZ_03_02	
4/12/00	10:45a	16,447,812	SZ_03_03	
4/12/00	10:49a	16,447,812	SZ_03_04	
3/8/00	03:31p	7,531,121	SZ_04_01	
3/8/00	03:32p	7,531,121	SZ_04_02	
3/8/00	03:36p	7,531,121	SZ_04_03	
3/8/00	03:36p	7,531,121	SZ_04_04	
1/28/00	04:20p	10,449,584	SZ_05_01	
1/28/00	04:20p	10,625,985	SZ_05_02	
1/28/00	04:20p	9,743,980	SZ_05_03	
1/28/00	04:20p	9,743,980	SZ_05_04	
1/28/00	04:21p	7,476,265	SZ_06_01	
1/28/00	04:21p	7,476,265	SZ_06_02	
1/28/00	04:21p	7,476,265	SZ_06_03	
1/28/00	04:21p	7,476,265	SZ_06_04	
4/12/00	12:44p	6,963,312	SZ_07_01	
4/12/00	12:44p	6,963,312	SZ_07_02	
4/12/00	12:45p	6,963,312	SZ_07_03	
4/12/00	12:45p	6,963,312	SZ_07_04	
1/28/00	04:17p	19,909,441	SZ_08_01	
1/28/00	04:17p	20,076,777	SZ_08_02	
1/28/00	04:17p	20,076,777	SZ_08_03	
1/28/00	04:17p	20,076,777	SZ_08_04	
6/15/00	03:23p	382	sz_convolute2.dat	saturated zone convolution output file
Other files				
2/3/00	04:46p	473,088	ashdll.dll	ashplume DLL
4/28/00	12:38p	262,201	soilexp.dll	soil removal factor DLL