NPI

Sum of cicalcinv2	
locate	Total
tx	33,323
(blank)	309,771
Grand Total	343,094

MAIN POOL INVENTORY (ACCOUNTING) = 309,771
+ 148,376 —
458,147

PLUS STELLITE, PLUS WASTE, PLUS SOURCES LISTED @ 1 Ci DUE TO NEED TO CALIBRATE THEM, FOR A TOTAL OF 527,796.

RECEIVED
OCT - 3 2003
RADIOLOGICAL HEALTH PROGRAM

NEUTRON PRODUCTS, INC.

manuf	model	serialno	slugno	curies	cidate	cicalcinv1	cicalcdate1	cicalcinv2	cicalcdate2	countinv	locate
amersham	CKC171	0503ET		1,690	2/1/98	886	12/31/02	802	10/2/03	1	
amersham	CKC201	037OET		2,500	4/1/97	1,174	12/31/02	1,063	10/2/03	1	
amersham		0536ET		5,687	11/1/91	1,310	12/31/02	1,186	10/2/03	1	
amersham		0624ET		5,500	3/1/95	1,963	12/31/02	1,777	10/2/03	1	
ams	3801	AMS2486		850	3/1/98	450	12/31/02	408	10/2/03	1	
ams	ams	AMS2616		1,800	9/21/01	1,522	12/31/02	1,378	10/2/03	1	
AMS	AMS 3802	AMS22334		2,759	7/1/85	276	12/31/02	250	10/2/03	1	
ams		2576		1,947	2/1/88	274	12/31/02	248	10/2/03	1	
ams		2584		2,121	4/1/89	348	12/31/02	315	10/2/03	1	
ams		AMS-????		1	1/1/60	0	12/31/02	0	10/2/03	1	
ams		AMS2404		167	5/12/97	80	12/31/02	72	10/2/03	1	
ams		AMS2545		900	5/1/96	375	12/31/02	339	10/2/03	1	
ams		AMS2568		1	1/1/60	0	12/31/02	0	10/2/03	1	
ams		AMS2597		1,450	1/1/60	5	12/31/02	5	10/2/03	1	
arg	16	119-13		971	6/1/94	314	12/31/02	284	10/2/03	1	
arg	24	101-11B		1,010	8/1/97	496	12/31/02	449	10/2/03	1	
arg	24	101-12B		1,140	8/1/97	559	12/31/02	506	10/2/03	1	
arg	24	105-5		16,890	8/1/97	8,287	12/31/02	7,504	10/2/03	1	
arg	24	109-6B		2,630	8/1/97	1,290	12/31/02	1,168	10/2/03	1	
arg	24	119-15B		590	8/1/97	289	12/31/02	262	10/2/03	1	
ceo		CEO1602		1	1/1/60	0	12/31/02	0	10/2/03	1	
cgr		CGR3774		1,330	4/21/96	552	12/31/02	499	10/2/03	1	
CIS-bio		3789		1,400	4/17/02	1,276	12/31/02	1,155	10/2/03	1	tx
ge	CKC171	0503ET		1,690	2/1/98	886	12/31/02	802	10/2/03	1	
ge	GE106D39	GET20196		1,370	1/15/98	714	12/31/02	646	10/2/03	1	
ge	GE106D39	GET20196		1,370	1/15/98	714	12/31/02	646	10/2/03	1	
ge	GET	GET-20-216		1,920	1/1/60	7	12/31/02	6	10/2/03	1	
ge	GET	GET-20-220		1,809	10/10/97	910	12/31/02	824	10/2/03	1	
ge		GET1062		1	1/1/60	0	12/31/02	0	10/2/03	1	
GE		x		6,670	7/1/93	1,913	12/31/02	1,732	10/2/03	1	
npi	nprp	74210		9	11/20/97	5	12/31/02	4	10/2/03	1	
npi	nprp	74211		12	11/20/97	6	12/31/02	6	10/2/03	1	
npi	nprp	74212		15	11/20/97	8	12/31/02	7	10/2/03	1	
npi	nprp	74213		19	11/20/97	10	12/31/02	9	10/2/03	1	
npi	nprp	74214		15	11/20/97	8	12/31/02	7	10/2/03	1	
npi	nprp	74215		13	11/20/97	7	12/31/02	6	10/2/03	1	
npi	nprp	74216		15	11/20/97	8	12/31/02	7	10/2/03	1	
npi	nprp	74217		18	11/20/97	9	12/31/02	8	10/2/03	1	
npi	nprp	74218		88	11/20/97	45	12/31/02	41	10/2/03	1	
npi	nprp	74219		79	11/20/97	40	12/31/02	37	10/2/03	1	
npi	nprp	74220		83	11/20/97	42	12/31/02	38	10/2/03	1	

NEUTRON PRODUCTS, INC.

manuf	model	serialno	slugno	curies	cidate	cicalcinv1	cicalcdate1	cicalcinv2	cicalcdate2	countinv	locate
npi	nprp	74221		78	11/20/97	40	12/31/02	36	10/2/03	1	
npi	nprp	74222		78	11/20/97	40	12/31/02	36	10/2/03	1	
npi	nprp	74223		78	11/20/97	40	12/31/02	36	10/2/03	1	
npi	nprp	74224		81	11/20/97	41	12/31/02	37	10/2/03	1	
npi	nprp	74225		77	11/20/97	39	12/31/02	36	10/2/03	1	
npi	nprp	74226		75	11/20/97	38	12/31/02	35	10/2/03	1	
npi	nprp	74227		72	11/20/97	37	12/31/02	33	10/2/03	1	
npi	nprp	74228		67	11/20/97	34	12/31/02	31	10/2/03	1	
npi	nprp	74229		76	11/20/97	39	12/31/02	35	10/2/03	1	
npi	nprp	74230		65	11/20/97	33	12/31/02	30	10/2/03	1	
npi	nprp	74231		73	11/20/97	37	12/31/02	34	10/2/03	1	
npi	nprp	74232		68	11/20/97	35	12/31/02	31	10/2/03	1	
npi	nprp	74233		65	11/20/97	33	12/31/02	30	10/2/03	1	
npi	nprp	74234		68	11/20/97	35	12/31/02	31	10/2/03	1	
npi	nprp	74235		64	11/20/97	33	12/31/02	30	10/2/03	1	
npi	nprp	74236		66	11/20/97	34	12/31/02	31	10/2/03	1	
npi	nprp	74237		66	11/20/97	34	12/31/02	31	10/2/03	1	
npi	nprp	74238		67	11/20/97	34	12/31/02	31	10/2/03	1	
npi	nprp	74239		61	11/20/97	31	12/31/02	28	10/2/03	1	
npi	nprp	74240		65	11/20/97	33	12/31/02	30	10/2/03	1	
npi	nprp	74241		66	11/20/97	34	12/31/02	31	10/2/03	1	
npi	nprp	76806		1	5/12/93	0	12/31/02	0	10/2/03	1	
npi	nprp	76809		1	5/12/93	0	12/31/02	0	10/2/03	1	
npi	nprp	77102		100	1/1/97	45	12/31/02	41	10/2/03	1	
npi	nprp	77105		110	1/1/97	50	12/31/02	45	10/2/03	1	
npi	nprp	77108		90	1/1/97	41	12/31/02	37	10/2/03	1	
npi	nprp	77112		90	1/1/97	41	12/31/02	37	10/2/03	1	
npi	nprp	77113		100	1/1/97	45	12/31/02	41	10/2/03	1	
npi	nprp	77114		100	1/1/97	45	12/31/02	41	10/2/03	1	
npi	nprp	77117		100	1/1/97	45	12/31/02	41	10/2/03	1	
npi	nprp	77119		90	1/1/97	41	12/31/02	37	10/2/03	1	
npi	nprp	77121		100	1/1/97	45	12/31/02	41	10/2/03	1	
npi	nprp	77122		90	1/1/97	41	12/31/02	37	10/2/03	1	
npi	nprp	77124		100	1/1/97	45	12/31/02	41	10/2/03	1	
npi	nprp	77125		110	1/1/97	50	12/31/02	45	10/2/03	1	
npi	nprp	77127		110	1/1/97	50	12/31/02	45	10/2/03	1	
npi	nprp	77128		110	1/1/97	50	12/31/02	45	10/2/03	1	
npi	nprp	77133		90	1/1/97	41	12/31/02	37	10/2/03	1	
npi	nprp	77135		100	1/1/97	45	12/31/02	41	10/2/03	1	
npi	nprp	77138		90	1/1/97	41	12/31/02	37	10/2/03	1	
npi	nprp	77142		100	1/1/97	45	12/31/02	41	10/2/03	1	

NEUTRON PRODUCTS, INC.

manuf	model	serialno	slugno	curies	cidate	cicalcinv1	cicalcdate1	cicalcinv2	cicalcdate2	countinv	locate
npi	nprp	77143		110	1/1/97	50	12/31/02	45	10/2/03	1	
npi	nprp	77147		100	1/1/97	45	12/31/02	41	10/2/03	1	
npi	nprp	77150		90	1/1/97	41	12/31/02	37	10/2/03	1	
npi	nprp	77153		90	1/1/97	41	12/31/02	37	10/2/03	1	
npi	nprp	77155		100	1/1/97	45	12/31/02	41	10/2/03	1	
npi	nprp	77160		90	1/1/97	41	12/31/02	37	10/2/03	1	
npi	nprp	77165		100	1/1/97	45	12/31/02	41	10/2/03	1	
npi	nprp	77166		90	1/1/97	41	12/31/02	37	10/2/03	1	
npi	nprp	77171		90	1/1/97	41	12/31/02	37	10/2/03	1	
npi	nprp	77183		100	1/1/97	45	12/31/02	41	10/2/03	1	
npi	nprp	77185		90	1/1/97	41	12/31/02	37	10/2/03	1	
npi	nprp	77189		110	1/1/97	50	12/31/02	45	10/2/03	1	
npi	nprp	77191		90	1/1/97	41	12/31/02	37	10/2/03	1	
npi	nprp	77192		90	1/1/97	41	12/31/02	37	10/2/03	1	
npi	nprp	77193		90	1/1/97	41	12/31/02	37	10/2/03	1	
npi	nprp	77196		90	1/1/97	41	12/31/02	37	10/2/03	1	
npi	nprp	77200		100	1/1/97	45	12/31/02	41	10/2/03	1	
npi	nprp	77201		90	1/1/97	41	12/31/02	37	10/2/03	1	
npi	nprp	77202		100	1/1/97	45	12/31/02	41	10/2/03	1	
npi	nprp	77204		90	1/1/97	41	12/31/02	37	10/2/03	1	
npi	nprp	77206		90	1/1/97	41	12/31/02	37	10/2/03	1	
npi	nprp	77209		90	1/1/97	41	12/31/02	37	10/2/03	1	
npi	nprp	77211		90	1/1/97	41	12/31/02	37	10/2/03	1	
npi	nprp	77215		100	1/1/97	45	12/31/02	41	10/2/03	1	
npi	nprp	77216		100	1/1/97	45	12/31/02	41	10/2/03	1	
npi	nprp	77219		100	1/1/97	45	12/31/02	41	10/2/03	1	
npi	nprp	77220		110	1/1/97	50	12/31/02	45	10/2/03	1	
npi	nprp	77221		90	1/1/97	41	12/31/02	37	10/2/03	1	
npi	nprp	77225		100	1/1/97	45	12/31/02	41	10/2/03	1	
npi	nprp	77226		100	1/1/97	45	12/31/02	41	10/2/03	1	
npi	nprp	77232		100	1/1/97	45	12/31/02	41	10/2/03	1	
npi	nprp	77233		100	1/1/97	45	12/31/02	41	10/2/03	1	
npi	nprp	77234		80	1/1/97	36	12/31/02	33	10/2/03	1	
npi	nprp	77236		100	1/1/97	45	12/31/02	41	10/2/03	1	
npi	nprp	77242		100	1/1/97	45	12/31/02	41	10/2/03	1	
npi	nprp	77244		100	1/1/97	45	12/31/02	41	10/2/03	1	
npi	nprp	77245		90	1/1/97	41	12/31/02	37	10/2/03	1	
npi	nprp	77248		90	1/1/97	41	12/31/02	37	10/2/03	1	
npi	nprp	77250		100	1/1/97	45	12/31/02	41	10/2/03	1	
npi	nprp	77256		100	1/1/97	45	12/31/02	41	10/2/03	1	
npi	nprp	77257		90	1/1/97	41	12/31/02	37	10/2/03	1	

NEUTRON PRODUCTS, INC.

manuf	model	serialno	slugno	curies	cidate	cicalcinv1	cicalcdate1	cicalcinv2	cicalcdate2	countinv	locate
npi	nprp	77260		100	1/1/97	45	12/31/02	41	10/2/03	1	
npi	nprp	77263		110	1/1/97	50	12/31/02	45	10/2/03	1	
npi	nprp	77266		130	1/1/97	59	12/31/02	54	10/2/03	1	
npi	nprp	77269		100	1/1/97	45	12/31/02	41	10/2/03	1	
npi	nprp	77270		80	1/1/97	36	12/31/02	33	10/2/03	1	
npi	nprp	77271		140	1/1/97	64	12/31/02	58	10/2/03	1	
npi	nprp	77274		100	1/1/97	45	12/31/02	41	10/2/03	1	
npi	nprp	77278		100	1/1/97	45	12/31/02	41	10/2/03	1	
npi	nprp	77279		140	1/1/97	64	12/31/02	58	10/2/03	1	
npi	nprp	77280		100	1/1/97	45	12/31/02	41	10/2/03	1	
npi	nprp	77283		110	1/1/97	50	12/31/02	45	10/2/03	1	
npi	nprp	77287		110	1/1/97	50	12/31/02	45	10/2/03	1	
npi	nprp	77289		100	1/1/97	45	12/31/02	41	10/2/03	1	
npi	nprp	77292		140	1/1/97	64	12/31/02	58	10/2/03	1	
npi	nprp	77294		160	1/1/97	73	12/31/02	66	10/2/03	1	
npi	nprp	77295		130	1/1/97	59	12/31/02	54	10/2/03	1	
npi	nprp	77296		160	1/1/97	73	12/31/02	66	10/2/03	1	
npi	nprp	77298		120	1/1/97	55	12/31/02	49	10/2/03	1	
npi	nprp	77299		100	1/1/97	45	12/31/02	41	10/2/03	1	
npi	nprp	77300		140	1/1/97	64	12/31/02	58	10/2/03	1	
npi	nprp	77301		180	1/1/97	82	12/31/02	74	10/2/03	1	
npi	nprp	77303		120	1/1/97	55	12/31/02	49	10/2/03	1	
npi	nprp	77308		100	1/1/97	45	12/31/02	41	10/2/03	1	
npi	nprp	77313		100	1/1/97	45	12/31/02	41	10/2/03	1	
npi	nprp	77317		130	1/1/97	59	12/31/02	54	10/2/03	1	
npi	nprp	77318		160	1/1/97	73	12/31/02	66	10/2/03	1	
npi	nprp	77319		290	1/1/97	132	12/31/02	119	10/2/03	1	
npi	nprp	77320		130	1/1/97	59	12/31/02	54	10/2/03	1	
npi	nprp	77321		150	1/1/97	68	12/31/02	62	10/2/03	1	
npi	nprp	77323		180	1/1/97	82	12/31/02	74	10/2/03	1	
npi	nprp	79210		320	7/1/95	119	12/31/02	108	10/2/03	1	
npi	nprp	79211		310	7/1/95	116	12/31/02	105	10/2/03	1	
npi	nprp	79212		340	7/1/95	127	12/31/02	115	10/2/03	1	
npi	nprp	79213		330	7/1/95	123	12/31/02	111	10/2/03	1	
npi	nprp	79214		330	7/1/95	123	12/31/02	111	10/2/03	1	
npi	nprp	79215		350	7/1/95	131	12/31/02	118	10/2/03	1	
npi	nprp	79216		1	5/12/93	0	12/31/02	0	10/2/03	1	
npi	nprp	79218		1	5/12/93	0	12/31/02	0	10/2/03	1	
npi	nprp	79219		1	5/12/93	0	12/31/02	0	10/2/03	1	
npi	nprp	79220		400	5/1/96	166	12/31/02	151	10/2/03	1	
npi	nprp	79221		1	5/12/93	0	12/31/02	0	10/2/03	1	

NEUTRON PRODUCTS, INC.

manuf	model	serialno	slugno	curies	cidate	cicalcinv1	cicalcdate1	cicalcinv2	cicalcdate2	countinv	locate
npi	nprp	79222		1	5/12/93	0	12/31/02	0	10/2/03	1	
npi	nprp	79223		1	5/12/93	0	12/31/02	0	10/2/03	1	
npi	nprp	79224		1	5/12/93	0	12/31/02	0	10/2/03	1	
npi	nprp	79225		1	5/12/93	0	12/31/02	0	10/2/03	1	
npi	nprp	79226		1	5/12/93	0	12/31/02	0	10/2/03	1	
npi	nprp	79227		1	5/12/93	0	12/31/02	0	10/2/03	1	
npi	nprp	79228		1	5/12/93	0	12/31/02	0	10/2/03	1	
npi	nprp	79229		1	5/12/93	0	12/31/02	0	10/2/03	1	
npi	nprp	79230		1	5/12/93	0	12/31/02	0	10/2/03	1	
npi	nprp	79231		1	5/12/93	0	12/31/02	0	10/2/03	1	
npi	nprp	80012		465	6/1/97	223	12/31/02	202	10/2/03	1	
npi	nprp	80017		386	6/1/97	185	12/31/02	168	10/2/03	1	
npi	nprp	80018		380	5/1/96	158	12/31/02	143	10/2/03	1	
npi	nprp	80021		320	7/1/95	119	12/31/02	108	10/2/03	1	
npi	nprp	80022		380	5/1/96	158	12/31/02	143	10/2/03	1	
npi	nprp	80023		310	7/1/95	116	12/31/02	105	10/2/03	1	
npi	nprp	81001		1,410	10/1/97	707	12/31/02	640	10/2/03	1	
npi	nprp	81002		1,280	10/1/97	642	12/31/02	581	10/2/03	1	
npi	nprp	81003		1,440	10/1/97	722	12/31/02	654	10/2/03	1	
npi	nprp	81004		1,370	10/1/97	687	12/31/02	622	10/2/03	1	
npi	nprp	81005		1,340	10/1/97	672	12/31/02	609	10/2/03	1	
npi	nprp	81006		1,310	10/1/97	657	12/31/02	595	10/2/03	1	
npi	nprp	81007		1,210	10/1/97	607	12/31/02	550	10/2/03	1	
npi	nprp	81008		1,470	10/1/97	737	12/31/02	668	10/2/03	1	
npi	nprp	81009		1,240	10/1/97	622	12/31/02	563	10/2/03	1	
npi	nprp	81010		1,210	10/1/97	607	12/31/02	550	10/2/03	1	
npi	nprp	81011		1,410	10/1/97	707	12/31/02	640	10/2/03	1	
npi	nprp	81012		1,800	10/1/97	903	12/31/02	817	10/2/03	1	
npi	nprp	81013		1,340	10/1/97	672	12/31/02	609	10/2/03	1	
npi	nprp	81014		1,440	10/1/97	722	12/31/02	654	10/2/03	1	
npi	nprp	81015		1,370	10/1/97	687	12/31/02	622	10/2/03	1	
npi	nprp	81016		1,560	10/1/97	782	12/31/02	708	10/2/03	1	
npi	nprp	81017		1,540	10/1/97	772	12/31/02	699	10/2/03	1	
npi	nprp	81018		1,540	10/1/97	772	12/31/02	699	10/2/03	1	
npi	nprp	81019		1,050	10/1/97	527	12/31/02	477	10/2/03	1	
npi	nprp	81020		1,240	10/1/97	622	12/31/02	563	10/2/03	1	
npi	nprp	81021		1,400	10/1/97	702	12/31/02	636	10/2/03	1	
npi	nprp	81022		1,410	10/1/97	707	12/31/02	640	10/2/03	1	
npi	nprp	81023		1,310	10/1/97	657	12/31/02	595	10/2/03	1	
npi	nprp	81024		1,600	10/1/97	802	12/31/02	727	10/2/03	1	
npi	nprp	81025		1,540	10/1/97	772	12/31/02	699	10/2/03	1	

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manuf	model	serialno	slugno	curies	cidate	cicalcinv1	cicalcdate1	cicalcinv2	cicalcdate2	countinv	locate
npi	nprp	81026		1,670	10/1/97	838	12/31/02	758	10/2/03	1	
npi	nprp	81027		1,180	10/1/97	592	12/31/02	536	10/2/03	1	
npi	nprp	81028		1,470	10/1/97	737	12/31/02	668	10/2/03	1	
npi	nprp	81029		1,410	10/1/97	707	12/31/02	640	10/2/03	1	
npi	nprp	81030		1,150	10/1/97	577	12/31/02	522	10/2/03	1	
npi	nprp	81031		1,340	10/1/97	672	12/31/02	609	10/2/03	1	
npi	nprp	81032		1,440	10/1/97	722	12/31/02	654	10/2/03	1	
npi	nprp	81033		1,500	10/1/97	752	12/31/02	681	10/2/03	1	
npi	nprp	81034		1,600	10/1/97	802	12/31/02	727	10/2/03	1	
npi	nprp	81035		1,340	10/1/97	672	12/31/02	609	10/2/03	1	
npi	nprp	81036		1,670	10/1/97	838	12/31/02	758	10/2/03	1	
npi	nprp	81037		1,340	10/1/97	672	12/31/02	609	10/2/03	1	
npi	nprp	81038		1,600	10/1/97	802	12/31/02	727	10/2/03	1	
npi	nprp	81040		1,410	10/1/97	707	12/31/02	640	10/2/03	1	
npi	nprp	81041		1,540	10/1/97	772	12/31/02	699	10/2/03	1	
npi	nprp	81042		1,310	10/1/97	657	12/31/02	595	10/2/03	1	
npi	nprp	81043		1,180	10/1/97	592	12/31/02	536	10/2/03	1	
npi	nprp	81044		1,240	10/1/97	622	12/31/02	563	10/2/03	1	
npi	nprp	81046		1,570	10/1/97	787	12/31/02	713	10/2/03	1	
npi	nprp	81047		1,540	10/1/97	772	12/31/02	699	10/2/03	1	
npi	nprp	81048		1,410	10/1/97	707	12/31/02	640	10/2/03	1	
npi	nprp	81049		1,800	10/1/97	903	12/31/02	817	10/2/03	1	
npi	nprp	81050		1,280	10/1/97	642	12/31/02	581	10/2/03	1	
npi	nprp	81051		1,410	10/1/97	707	12/31/02	640	10/2/03	1	
npi	nprp	81052		1,700	10/1/97	853	12/31/02	772	10/2/03	1	
npi	nprp	81053		1,340	10/1/97	672	12/31/02	609	10/2/03	1	
npi	nprp	81054		1,670	10/1/97	838	12/31/02	758	10/2/03	1	
npi	nprp	81055		1,670	10/1/97	838	12/31/02	758	10/2/03	1	
npi	nprp	81056		1,410	10/1/97	707	12/31/02	640	10/2/03	1	
npi	nprp	81057		1,640	10/1/97	822	12/31/02	745	10/2/03	1	
npi	nprp	81058		1,180	10/1/97	592	12/31/02	536	10/2/03	1	
npi	nprp	81059		1,470	10/1/97	737	12/31/02	668	10/2/03	1	
npi	nprp	81060		1,470	10/1/97	737	12/31/02	668	10/2/03	1	
npi	nprp	81061		1,470	10/1/97	737	12/31/02	668	10/2/03	1	
npi	nprp	81062		1,600	10/1/97	802	12/31/02	727	10/2/03	1	
npi	nprp	81063		1,370	10/1/97	687	12/31/02	622	10/2/03	1	
npi	nprp	81064		1,470	10/1/97	737	12/31/02	668	10/2/03	1	
npi	nprp	81065		1,440	10/1/97	722	12/31/02	654	10/2/03	1	
npi	nprp	81066		380	5/1/96	158	12/31/02	143	10/2/03	1	
npi	nprp	81066		1,500	10/1/97	752	12/31/02	681	10/2/03	1	
npi	nprp	81067		351	6/1/97	168	12/31/02	153	10/2/03	1	

NEUTRON PRODUCTS, INC.

manuf	model	serialno	slugno	curies	cidate	cicalcinv1	cicalcdate1	cicalcinv2	cicalcdate2	countinv	locate
npi	nprp	81067		1,180	10/1/97	592	12/31/02	536	10/2/03	1	
npi	nprp	81068		1,770	10/1/97	888	12/31/02	804	10/2/03	1	
npi	nprp	81069		344	6/1/97	165	12/31/02	150	10/2/03	1	
npi	nprp	81069		1,240	10/1/97	622	12/31/02	563	10/2/03	1	
npi	nprp	81070		344	6/1/97	165	12/31/02	150	10/2/03	1	
npi	nprp	81070		1,440	10/1/97	722	12/31/02	654	10/2/03	1	
npi	nprp	81071		380	5/1/96	158	12/31/02	143	10/2/03	1	
npi	nprp	81071		1,500	10/1/97	752	12/31/02	681	10/2/03	1	
npi	nprp	81072		339	6/1/97	163	12/31/02	147	10/2/03	1	
npi	nprp	81072		1,470	10/1/97	737	12/31/02	668	10/2/03	1	
npi	nprp	81073		338	6/1/97	162	12/31/02	147	10/2/03	1	
npi	nprp	81073		1,140	10/1/97	572	12/31/02	518	10/2/03	1	
npi	nprp	81074		376	6/1/97	180	12/31/02	163	10/2/03	1	
npi	nprp	81074		1,640	10/1/97	822	12/31/02	745	10/2/03	1	
npi	nprp	81075		359	6/1/97	172	12/31/02	156	10/2/03	1	
npi	nprp	81075		1,140	10/1/97	572	12/31/02	518	10/2/03	1	
npi	nprp	81076		370	5/1/96	154	12/31/02	139	10/2/03	1	
npi	nprp	81077		366	6/1/97	176	12/31/02	159	10/2/03	1	
npi	nprp	81077		1,860	10/1/97	933	12/31/02	845	10/2/03	1	
npi	nprp	81078		1,280	10/1/97	642	12/31/02	581	10/2/03	1	
npi	nprp	81079		1,440	10/1/97	722	12/31/02	654	10/2/03	1	
npi	nprp	81081		345	6/1/97	166	12/31/02	150	10/2/03	1	
npi	nprp	81082		390	5/1/96	162	12/31/02	147	10/2/03	1	
npi	nprp	81083		390	5/1/96	162	12/31/02	147	10/2/03	1	
npi	nprp	81084		390	5/1/96	162	12/31/02	147	10/2/03	1	
npi	nprp	81088		344	6/1/97	165	12/31/02	150	10/2/03	1	
npi	nprp	81089		344	6/1/97	165	12/31/02	150	10/2/03	1	
npi	nprp	81093		347	6/1/97	167	12/31/02	151	10/2/03	1	
npi	nprp	81103		385	6/1/97	185	12/31/02	167	10/2/03	1	
npi	nprp	8491		6,890	9/1/84	619	12/31/02	560	10/2/03	1	
npi	nprp	8492		8,260	9/1/84	742	12/31/02	672	10/2/03	1	
npi	nprp	8493		7,010	9/1/84	629	12/31/02	570	10/2/03	1	
npi	nprp	8494		6,230	9/1/84	559	12/31/02	507	10/2/03	1	
npi	nprp	86101		1,050	11/20/97	536	12/31/02	486	10/2/03	1	
npi	nprp	86102		990	11/20/97	506	12/31/02	458	10/2/03	1	
npi	nprp	86103		1,030	11/20/97	526	12/31/02	476	10/2/03	1	
npi	nprp	86104		1,050	11/20/97	536	12/31/02	486	10/2/03	1	
npi	nprp	86105		1,070	11/20/97	546	12/31/02	495	10/2/03	1	
npi	nprp	86106		1,050	11/20/97	536	12/31/02	486	10/2/03	1	
npi	nprp	86107		950	11/20/97	485	12/31/02	439	10/2/03	1	
npi	nprp	86108		990	11/20/97	506	12/31/02	458	10/2/03	1	

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manuf	model	serialno	slugno	curies	cidate	cicalcinv1	cicalcdate1	cicalcinv2	cicalcdate2	countinv	locate
npi	nprp	91309	68	1,426	9/9/99	923	12/31/02	836	10/2/03	1	
npi	nprp	91310	69	1,479	9/9/99	957	12/31/02	867	10/2/03	1	
npi	nprp	91311	70	1,430	9/9/99	925	12/31/02	838	10/2/03	1	
npi	nprp	91519		9,070	10/1/91	2,066	12/31/02	1,871	10/2/03	1	
npi	nprp	92070		1,360	1/1/97	618	12/31/02	560	10/2/03	1	
npi	nprp	92071		1,360	1/1/97	618	12/31/02	560	10/2/03	1	
npi	nprp	92072		1,170	1/1/97	532	12/31/02	482	10/2/03	1	
npi	nprp	92073		1,020	1/1/97	464	12/31/02	420	10/2/03	1	
npi	nprp	92074		1,090	1/1/97	495	12/31/02	449	10/2/03	1	
npi	nprp	92075		1,020	1/1/97	464	12/31/02	420	10/2/03	1	
npi	nprp	92076		1,020	1/1/97	464	12/31/02	420	10/2/03	1	
npi	nprp	92077		1,060	1/1/97	482	12/31/02	436	10/2/03	1	
npi	nprp	92078		1,170	1/1/97	532	12/31/02	482	10/2/03	1	
npi	nprp	94965		8,600	9/1/94	2,876	12/31/02	2,604	10/2/03	1	
npi	nptt	?	881184	1,017	12/1/95	401	12/31/02	363	10/2/03	1	
npi	nptt	RT78		120	11/1/97	61	12/31/02	55	10/2/03	1	
npi	nptt	T1012	881151	5,640	1/1/89	895	12/31/02	811	10/2/03	1	
npi	nptt	T1012	881172	4,250	1/1/89	675	12/31/02	611	10/2/03	1	
npi	nptt	T1033	891258	3,800	9/1/90	751	12/31/02	680	10/2/03	1	
npi	nptt	T1033	891259	3,990	9/1/90	788	12/31/02	714	10/2/03	1	
npi	nptt	T1040	82801	860	1/1/89	137	12/31/02	124	10/2/03	1	
npi	nptt	T1053	901275	3,817	1/1/95	1,334	12/31/02	1,208	10/2/03	1	
npi	nptt	T1079	84933	2,010	1/1/89	319	12/31/02	289	10/2/03	1	
npi	nptt	T1079	901283	4,950	9/1/90	978	12/31/02	886	10/2/03	1	
npi	nptt	T1081	901291	4,810	9/1/90	951	12/31/02	861	10/2/03	1	
npi	nptt	T1081	5W	1	1/1/60	0	12/31/02	0	10/2/03	1	
npi	nptt	T1095	85986	1,260	1/1/89	200	12/31/02	181	10/2/03	1	
npi	nptt	T1095	901306	4,600	9/1/90	909	12/31/02	823	10/2/03	1	
npi	nptt	T1107	81677	1,540	1/1/89	245	12/31/02	221	10/2/03	1	
npi	nptt	T1111	901282	2,440	1/1/95	853	12/31/02	772	10/2/03	1	
npi	nptt	T1145	851001	2,680	1/1/89	425	12/31/02	385	10/2/03	1	
npi	nptt	T1145	911375	5,360	7/1/91	1,181	12/31/02	1,070	10/2/03	1	
npi	nptt	T1150	911356	2,020	7/1/91	445	12/31/02	403	10/2/03	1	
npi	nptt	T1150	911366	3,340	7/1/91	736	12/31/02	667	10/2/03	1	
npi	nptt	T1151	74063	100	1/1/95	35	12/31/02	32	10/2/03	1	
npi	nptt	T1175	84949	1,360	1/1/89	216	12/31/02	196	10/2/03	1	
npi	nptt	T1175	921474	4,460	3/1/92	1,073	12/31/02	972	10/2/03	1	
npi	nptt	T1210	871080	5,700	1/1/89	905	12/31/02	819	10/2/03	1	
npi	nptt	T1212	83842	2,100	1/1/89	333	12/31/02	302	10/2/03	1	
npi	nptt	T1212	921432	3,110	3/1/92	748	12/31/02	678	10/2/03	1	
npi	nptt	T1227	85970	2,020	1/1/89	321	12/31/02	290	10/2/03	1	

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manuf	model	serialno	slugno	curies	cidate	cicalcinv1	cicalcdate1	cicalcinv2	cicalcdate2	countinv	locate
npi	nptt	T1227	921457	4,810	3/1/92	1,157	12/31/02	1,048	10/2/03	1	
npi	nptt	T1232	871100	3,460	1/1/89	549	12/31/02	497	10/2/03	1	
npi	nptt	T1232	871100	3,460	1/1/89	549	12/31/02	497	10/2/03	1	
npi	nptt	T1232	921463	4,650	3/1/92	1,119	12/31/02	1,013	10/2/03	1	
npi	nptt	T1232	921463	4,650	3/1/92	1,119	12/31/02	1,013	10/2/03	1	
npi	nptt	T1236	881180	2,730	1/1/89	433	12/31/02	392	10/2/03	1	
npi	nptt	T1251	921415	5,870	3/1/92	1,412	12/31/02	1,279	10/2/03	1	
npi	nptt	T1251	921440	3,720	3/1/92	895	12/31/02	811	10/2/03	1	
npi	nptt	T1258	921431	5,450	3/1/92	1,311	12/31/02	1,188	10/2/03	1	
npi	nptt	T1259	85980	1,380	1/1/89	219	12/31/02	198	10/2/03	1	
npi	nptt	T1260	911346	4,270	7/1/91	941	12/31/02	852	10/2/03	1	
npi	nptt	T1273	931535	3,740	9/1/93	1,097	12/31/02	993	10/2/03	1	
npi	nptt	T1290	81694	1,330	1/1/89	211	12/31/02	191	10/2/03	1	
npi	nptt	T1296	891235	3,362	1/1/95	1,175	12/31/02	1,064	10/2/03	1	
npi	nptt	T1302	881165	4,720	1/1/89	749	12/31/02	679	10/2/03	1	
npi	nptt	T1302	931510	3,880	9/1/93	1,138	12/31/02	1,030	10/2/03	1	
npi	nptt	T1307	75154	480	1/1/89	76	12/31/02	69	10/2/03	1	
npi	nptt	T1311	931537	3,450	9/1/93	1,012	12/31/02	916	10/2/03	1	
npi	nptt	T1330	921414	7,541	1/1/95	2,635	12/31/02	2,386	10/2/03	1	
npi	nptt	T1336	911334	1,930	7/1/91	425	12/31/02	385	10/2/03	1	
npi	nptt	T1336	951559	3,604	6/1/95	1,330	12/31/02	1,204	10/2/03	1	
npi	nptt	T1346	891262	3,180	9/1/90	628	12/31/02	569	10/2/03	1	
npi	nptt	T1346	951580	3,822	6/1/95	1,410	12/31/02	1,277	10/2/03	1	
npi	nptt	T1349	951555	5,546	6/1/95	2,046	12/31/02	1,853	10/2/03	1	
npi	nptt	T1349	951606	2,205	6/1/95	813	12/31/02	737	10/2/03	1	
npi	nptt	T1368	951589	4,741	6/1/95	1,749	12/31/02	1,584	10/2/03	1	
npi	nptt	T1375	921405	3,510	3/1/92	845	12/31/02	765	10/2/03	1	
npi	nptt	T1398	85987	1,840	1/1/89	292	12/31/02	265	10/2/03	1	
npi	nptt	T1398	961664	3,520	1/1/96	1,403	12/31/02	1,270	10/2/03	1	
npi	nptt	T1432	951577	5,122	6/1/95	1,890	12/31/02	1,711	10/2/03	1	
npi	nptt	T1432	961663	3,680	1/1/96	1,466	12/31/02	1,328	10/2/03	1	
npi	nptt	T1456	72016	87	12/1/95	34	12/31/02	31	10/2/03	1	
npi	nptt	T1460	891260	3,930	9/1/90	777	12/31/02	703	10/2/03	1	
npi	nptt	T1460	981730	5,110	6/1/98	2,797	12/31/02	2,533	10/2/03	1	
npi	nptt	T432	6w	1	1/1/60	0	12/31/02	0	10/2/03	1	
npi	nptt	T748	79558	988	1/1/95	345	12/31/02	313	10/2/03	1	
npi	nptt	T848	861030	3,550	1/1/89	564	12/31/02	510	10/2/03	1	
npi	nptt	T848	84-6 6w	1	1/1/89	0	12/31/02	0	10/2/03	1	
npi	nptt	T934	881160	2,715	1/1/95	949	12/31/02	859	10/2/03	1	
npi	nptt		71007	90	12/1/95	35	12/31/02	32	10/2/03	1	
npi	nptt		71012	48	12/1/95	19	12/31/02	17	10/2/03	1	

NEUTRON PRODUCTS, INC.

manuf	model	serialno	slugno	curies	cidate	cicalcinv1	cicalcdate1	cicalcinv2	cicalcdate2	countinv	locate
npi	nptt		72012	60	12/1/95	24	12/31/02	21	10/2/03	1	
npi	nptt		72027	97	12/1/95	38	12/31/02	35	10/2/03	1	
npi	nptt		73025	110	12/1/95	43	12/31/02	39	10/2/03	1	
npi	nptt		74041	107	12/1/95	42	12/31/02	38	10/2/03	1	
npi	nptt		74046	102	12/1/95	40	12/31/02	36	10/2/03	1	
npi	nptt		74048	99	12/1/95	39	12/31/02	35	10/2/03	1	
npi	nptt		74053	98	12/1/95	39	12/31/02	35	10/2/03	1	
npi	nptt		74055	89	12/1/95	35	12/31/02	32	10/2/03	1	
npi	nptt		74056	95	12/1/95	37	12/31/02	34	10/2/03	1	
npi	nptt		74062	95	12/1/95	37	12/31/02	34	10/2/03	1	
npi	nptt		74064	92	12/1/95	36	12/31/02	33	10/2/03	1	
npi	nptt		75141	104	12/1/95	41	12/31/02	37	10/2/03	1	
npi	nptt		75173	90	12/1/95	35	12/31/02	32	10/2/03	1	
npi	nptt		76223	261	12/1/95	103	12/31/02	93	10/2/03	1	
npi	nptt		76224	244	12/1/95	96	12/31/02	87	10/2/03	1	
npi	nptt		76230	98	12/1/95	39	12/31/02	35	10/2/03	1	
npi	nptt		77317	373	12/1/95	147	12/31/02	133	10/2/03	1	
npi	nptt		77345	73	12/1/95	29	12/31/02	26	10/2/03	1	
npi	nptt		77371	938	12/1/95	370	12/31/02	335	10/2/03	1	
npi	nptt		77372	930	12/1/95	366	12/31/02	332	10/2/03	1	
npi	nptt		77400	495	12/1/95	195	12/31/02	177	10/2/03	1	
npi	nptt		82744	1,620	12/1/95	638	12/31/02	578	10/2/03	1	
npi	nptt		82747	713	12/1/95	281	12/31/02	254	10/2/03	1	
npi	nptt		82749	708	12/1/95	279	12/31/02	253	10/2/03	1	
npi	nptt		82750	713	12/1/95	281	12/31/02	254	10/2/03	1	
npi	nptt		82751	729	12/1/95	287	12/31/02	260	10/2/03	1	
npi	nptt		82752	1,069	12/1/95	421	12/31/02	381	10/2/03	1	
npi	nptt		82753	1,076	12/1/95	424	12/31/02	384	10/2/03	1	
npi	nptt		82754	1,086	12/1/95	428	12/31/02	387	10/2/03	1	
npi	nptt		82757	1,079	12/1/95	425	12/31/02	385	10/2/03	1	
npi	nptt		82761	1,074	12/1/95	423	12/31/02	383	10/2/03	1	
npi	nptt		82763	1,073	12/1/95	423	12/31/02	383	10/2/03	1	
npi	nptt		82764	1,100	12/1/95	433	12/31/02	392	10/2/03	1	
npi	nptt		82766	1,071	12/1/95	422	12/31/02	382	10/2/03	1	
npi	nptt		82788	1,410	12/1/95	556	12/31/02	503	10/2/03	1	
npi	nptt		82827	446	12/1/95	176	12/31/02	159	10/2/03	1	
npi	nptt		83866	1	12/1/95	0	12/31/02	0	10/2/03	1	
npi	nptt		85969	775	12/1/95	305	12/31/02	277	10/2/03	1	
npi	nptt		85972	749	12/1/95	295	12/31/02	267	10/2/03	1	
npi	nptt		85988	688	12/1/95	271	12/31/02	245	10/2/03	1	
npi	nptt		85990	1,529	12/1/95	602	12/31/02	546	10/2/03	1	

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manuf	model	serialno	slugno	curies	cidate	cicalcinv1	cicalcdate1	cicalcinv2	cicalcdate2	countinv	locate
npi	nptt		851005	837	12/1/95	330	12/31/02	299	10/2/03	1	
npi	nptt		861018	1,781	12/1/95	702	12/31/02	635	10/2/03	1	
npi	nptt		861032	1,109	12/1/95	437	12/31/02	396	10/2/03	1	
npi	nptt		861067	248	12/1/95	98	12/31/02	88	10/2/03	1	
npi	nptt		881162	2,059	12/1/95	811	12/31/02	735	10/2/03	1	
npi	nptt		881197	1,881	12/1/95	741	12/31/02	671	10/2/03	1	
npi	nptt		881223	988	12/1/95	389	12/31/02	353	10/2/03	1	
npi	nptt		891236	2,863	12/1/95	1,128	12/31/02	1,022	10/2/03	1	
npi	nptt		891239	2,793	12/1/95	1,101	12/31/02	997	10/2/03	1	
npi	nptt		901281	3,249	12/1/95	1,280	12/31/02	1,159	10/2/03	1	
npi	nptt		901311	1,837	12/1/95	724	12/31/02	655	10/2/03	1	
npi	nptt		911337	1,890	7/1/91	417	12/31/02	377	10/2/03	1	
npi	nptt		911384	3,009	12/1/95	1,186	12/31/02	1,074	10/2/03	1	
npi	nptt		921404	2,260	12/1/95	891	12/31/02	806	10/2/03	1	
npi	nptt		931513	6,110	9/1/93	1,791	12/31/02	1,622	10/2/03	1	
npi	nptt		931546	2,600	9/1/93	762	12/31/02	690	10/2/03	1	
npi	nptt		951598	4,768	6/1/95	1,759	12/31/02	1,593	10/2/03	1	
npi	nptt		951607	1,985	6/1/95	732	12/31/02	663	10/2/03	1	
npi	nptt		961632	4,190	1/1/96	1,670	12/31/02	1,512	10/2/03	1	
npi	nptt		981696	5,250	6/1/98	2,874	12/31/02	2,602	10/2/03	1	
npi	nptt		981743	3,900	6/1/98	2,135	12/31/02	1,933	10/2/03	1	
npi	nptt		981744	3,850	6/1/98	2,107	12/31/02	1,908	10/2/03	1	
npi	nptt	T1194	921439	4,460	3/1/92	1,073	12/31/02	972	10/2/03	1	tx
npi	nptt	T1194	85977	1,840	1/1/89	292	12/31/02	265	10/2/03	1	tx
npi	nptt	T1001	881194	4,820	1/1/89	765	12/31/02	693	10/2/03	1	tx
npi	nptt	T1001	82776	2,120	1/1/89	337	12/31/02	305	10/2/03	1	tx
npi	nptt	T1399	901326	4,360	9/1/90	862	12/31/02	780	10/2/03	1	tx
npi	nptt	T1399	891252	4,230	9/1/90	836	12/31/02	757	10/2/03	1	tx
npi	nptt	T1115	911373	5,980	7/1/91	1,318	12/31/02	1,193	10/2/03	1	tx
npi	nptt	T1244	921473	4,530	3/1/92	1,090	12/31/02	987	10/2/03	1	tx
npi	nptt	T1244	871119	2,910	1/1/89	462	12/31/02	418	10/2/03	1	tx
npi	nptt	T1401	931508	5,610	9/1/93	1,645	12/31/02	1,490	10/2/03	1	tx
npi	nptt	T1401	85991	3,400	1/1/89	540	12/31/02	489	10/2/03	1	tx
npi	nptt	T1469	981746	4,410	6/1/98	2,414	12/31/02	2,186	10/2/03	1	tx
npi	nptt	T1469	861036	3,530	1/1/89	560	12/31/02	508	10/2/03	1	tx
npi	nptt	T1489	921401	5,300	3/1/92	1,275	12/31/02	1,155	10/2/03	1	tx
npi	nptt	T1489	921444	3,610	3/1/92	869	12/31/02	787	10/2/03	1	tx
npi	nptt	T896	871121	2,690	1/1/89	427	12/31/02	387	10/2/03	1	tx
npi	nptt	T896	79552	1,190	1/1/89	189	12/31/02	171	10/2/03	1	tx
npi	nptt	T1451	961634	4,380	1/1/96	1,745	12/31/02	1,580	10/2/03	1	tx
npi	nptt	T1451	951558	3,900	6/1/95	1,439	12/31/02	1,303	10/2/03	1	tx

NEUTRON PRODUCTS, INC.

manuf	model	serialno	slugno	curies	cidate	cicalcinv1	cicalcdate1	cicalcinv2	cicalcdate2	countinv	locate
npi	nptt	T1379	951562	5,501	6/1/95	2,029	12/31/02	1,838	10/2/03	1	tx
npi	nptt	T1379	901286	3,520	9/1/90	696	12/31/02	630	10/2/03	1	tx
npi	nptt	T1226	921466	3,350	3/1/92	806	12/31/02	730	10/2/03	1	tx
npi	nptt	T1226	77361	1,130	1/1/89	179	12/31/02	162	10/2/03	1	tx
npi	nptt	T1491	981726	5,400	6/1/98	2,956	12/31/02	2,677	10/2/03	1	tx
npi	nptt	T1491	83869	1,680	1/1/89	267	12/31/02	242	10/2/03	1	tx
npi	nptt	T996	881211	4,290	1/1/89	681	12/31/02	617	10/2/03	1	
npi	nptt	T996	84908	1,530	1/1/89	243	12/31/02	220	10/2/03	1	
npi	nptt	T245	77362	2,350	1/1/89	373	12/31/02	338	10/2/03	1	
npi	nptt	T1238	921472	4,400	3/1/92	1,059	12/31/02	959	10/2/03	1	
npi	nptt	T1238	871109	2,850	1/1/89	452	12/31/02	410	10/2/03	1	
npi	nptt	T1271	931516	4,710	9/1/93	1,381	12/31/02	1,251	10/2/03	1	tx
npi	nptt	T1271	861027	3,050	1/1/89	484	12/31/02	438	10/2/03	1	tx
npi	nptt	T1293	931505	5,740	9/1/93	1,683	12/31/02	1,524	10/2/03	1	tx
npi	nptt	T1293	861068	920	1/1/89	146	12/31/02	132	10/2/03	1	tx
npi	rodlets	01-72cut		7,433	12/1/01	6,448	12/31/02	5,839	10/2/03	1	
npi	srw	T762	8W(SR-1-L)	1	1/1/60	0	12/31/02	0	10/2/03	1	
Picker	C137	PX-85		2,000	9/23/64	13	12/31/02	12	10/2/03	1	
picker		PX2145		99	5/1/97	47	12/31/02	43	10/2/03	1	
sieman	CAESA	?		1,200	1/1/97	545	12/31/02	494	10/2/03	1	
thera	thera	S3925		813	5/1/01	653	12/31/02	591	10/2/03	1	
thera	thera	S4049		930	5/1/01	747	12/31/02	676	10/2/03	1	
thera	thera	S4389		1,547	6/1/01	1,256	12/31/02	1,138	10/2/03	1	
thera	thera	S4926		2,780	8/8/01	2,314	12/31/02	2,095	10/2/03	1	
thera	thera	S4987		4,560	9/15/01	3,847	12/31/02	3,484	10/2/03	1	
thera	thera	S2801		430	2/21/02	384	12/31/02	348	10/2/03	1	tx
thera	thera	S4040		980	3/19/02	884	12/31/02	800	10/2/03	1	tx
thera	thera	S4738		2,480	4/1/02	2,247	12/31/02	2,035	10/2/03	1	tx
thera	thera	S4392		1,340	4/4/02	1,215	12/31/02	1,101	10/2/03	1	tx
thera	thera	S5223		590	7/9/02	554	12/31/02	502	10/2/03	1	tx
thera	thera	S4117		5,778	6/8/88	851	12/31/02	771	10/2/03	1	tx
thera	thera	S4428		1,200	8/4/98	672	12/31/02	609	10/2/03	1	
thera	thera	S4033		1,200	3/25/99	731	12/31/02	662	10/2/03	1	
theratronics	?	?		535	6/10/98	294	12/31/02	266	10/2/03	1	
theratronics	C146	S4239		5,171	3/29/89	847	12/31/02	767	10/2/03	1	
theratronics	c146	S4311		11,810	11/3/99	7,795	12/31/02	7,059	10/2/03	1	
theratronics	C146	S4428		7,273	2/8/91	1,522	12/31/02	1,379	10/2/03	1	
theratronics	C146	S4622		3,330	3/1/98	1,763	12/31/02	1,597	10/2/03	1	
theratronics	rp	103		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	104		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	107		1	5/1/96	0	12/31/02	0	10/2/03	1	

NEUTRON PRODUCTS, INC.

manuf	model	serialno	slugno	curies	cidate	cicalcinv1	cicalcdate1	cicalcinv2	cicalcdate2	countinv	locate
theratronics	rp	10716		1,490	6/1/94	482	12/31/02	436	10/2/03	1	
theratronics	rp	109		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	118		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	120		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	123		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	12715		1,150	1/1/95	402	12/31/02	364	10/2/03	1	
theratronics	rp	12831		1,330	7/1/95	496	12/31/02	449	10/2/03	1	
theratronics	rp	129		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	130		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	13032		845	3/1/93	232	12/31/02	210	10/2/03	1	
theratronics	rp	13165		1,980	7/1/95	738	12/31/02	669	10/2/03	1	
theratronics	rp	13166		1,930	7/1/95	720	12/31/02	652	10/2/03	1	
theratronics	rp	13173		2,240	7/1/95	835	12/31/02	756	10/2/03	1	
theratronics	rp	13174		1,880	7/1/95	701	12/31/02	635	10/2/03	1	
theratronics	rp	13177		1,850	7/1/95	690	12/31/02	625	10/2/03	1	
theratronics	rp	132		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	134		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	137		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	139		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	13993		1,280	7/1/95	477	12/31/02	432	10/2/03	1	
theratronics	rp	13995		1,260	7/1/95	470	12/31/02	425	10/2/03	1	
theratronics	rp	13996		1,280	7/1/95	477	12/31/02	432	10/2/03	1	
theratronics	rp	140		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	14001		1,270	7/1/95	474	12/31/02	429	10/2/03	1	
theratronics	rp	14006		1,260	7/1/95	470	12/31/02	425	10/2/03	1	
theratronics	rp	14008		1,270	7/1/95	474	12/31/02	429	10/2/03	1	
theratronics	rp	14009		1,280	7/1/95	477	12/31/02	432	10/2/03	1	
theratronics	rp	14010		1,300	7/1/95	485	12/31/02	439	10/2/03	1	
theratronics	rp	14011		1,270	7/1/95	474	12/31/02	429	10/2/03	1	
theratronics	rp	14013		1,310	7/1/95	489	12/31/02	442	10/2/03	1	
theratronics	rp	14017		1,270	7/1/95	474	12/31/02	429	10/2/03	1	
theratronics	rp	14018		1,270	7/1/95	474	12/31/02	429	10/2/03	1	
theratronics	rp	14023		1,270	7/1/95	474	12/31/02	429	10/2/03	1	
theratronics	rp	14041		1,250	7/1/95	466	12/31/02	422	10/2/03	1	
theratronics	rp	14053		1,320	7/1/95	492	12/31/02	446	10/2/03	1	
theratronics	rp	14057		1,300	7/1/95	485	12/31/02	439	10/2/03	1	
theratronics	rp	14058		1,270	7/1/95	474	12/31/02	429	10/2/03	1	
theratronics	rp	14064		1,260	7/1/95	470	12/31/02	425	10/2/03	1	
theratronics	rp	14069		1,270	7/1/95	474	12/31/02	429	10/2/03	1	
theratronics	rp	14073		1,270	7/1/95	474	12/31/02	429	10/2/03	1	
theratronics	rp	14074		1,270	7/1/95	474	12/31/02	429	10/2/03	1	

NEUTRON PRODUCTS, INC.

manuf	model	serialno	slugno	curies	cidate	cicalcinv1	cicalcdate1	cicalcinv2	cicalcdate2	countinv	locate
theratronics	rp	141		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	144		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	148		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	149		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	150		1,770	7/1/95	660	12/31/02	598	10/2/03	1	
theratronics	rp	151		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	152		1,120	7/1/94	366	12/31/02	332	10/2/03	1	
theratronics	rp	152		1,030	7/1/95	384	12/31/02	348	10/2/03	1	
theratronics	rp	152		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	15220		1,090	10/1/94	368	12/31/02	334	10/2/03	1	
theratronics	rp	154		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	156		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	157		1,150	7/1/94	376	12/31/02	341	10/2/03	1	
theratronics	rp	157		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	158		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	159		1,230	7/1/95	459	12/31/02	415	10/2/03	1	
theratronics	rp	159		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	161		3,870	7/1/95	1,443	12/31/02	1,307	10/2/03	1	
theratronics	rp	161		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	162		3,840	7/1/95	1,432	12/31/02	1,297	10/2/03	1	
theratronics	rp	162		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	163		4,130	7/1/95	1,540	12/31/02	1,395	10/2/03	1	
theratronics	rp	163		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	164		4,180	7/1/95	1,559	12/31/02	1,412	10/2/03	1	
theratronics	rp	164		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	165		3,930	7/1/95	1,466	12/31/02	1,327	10/2/03	1	
theratronics	rp	166		3,970	7/1/95	1,480	12/31/02	1,341	10/2/03	1	
theratronics	rp	167		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	168		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	169		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	170		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	172		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	173		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	174		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	176		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	177		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	179		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	17915		1,600	10/1/94	541	12/31/02	490	10/2/03	1	
theratronics	rp	17985		2,090	1/1/95	730	12/31/02	661	10/2/03	1	
theratronics	rp	180		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	184		1	5/1/96	0	12/31/02	0	10/2/03	1	

NEUTRON PRODUCTS, INC.

manuf	model	serialno	slugno	curies	cidate	cicalcinv1	cicalcdate1	cicalcinv2	cicalcdate2	countinv	locate
theratronics	rp	186		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	187		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	194		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	195		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	198		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	199		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	205		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	207		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	210		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	212		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	213		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	214		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	21531		1,480	10/1/94	500	12/31/02	453	10/2/03	1	
theratronics	rp	21541		370	7/1/94	121	12/31/02	110	10/2/03	1	
theratronics	rp	217		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	218		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	22056		1,420	10/1/94	480	12/31/02	435	10/2/03	1	
theratronics	rp	22061		1,330	7/1/95	496	12/31/02	449	10/2/03	1	
theratronics	rp	22062		1,310	7/1/95	489	12/31/02	442	10/2/03	1	
theratronics	rp	22064		1,290	7/1/95	481	12/31/02	436	10/2/03	1	
theratronics	rp	222		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	223		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	224		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	227		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	228		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	230		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	235		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	237		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	238		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	240		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	241		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	24258		1,350	7/1/94	441	12/31/02	400	10/2/03	1	
theratronics	rp	243		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	247		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	251		1,000	7/1/95	373	12/31/02	338	10/2/03	1	
theratronics	rp	251		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	252		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	255		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	259		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	26053		4,480	10/1/94	1,514	12/31/02	1,371	10/2/03	1	
theratronics	rp	262		1	5/1/96	0	12/31/02	0	10/2/03	1	

NEUTRON PRODUCTS, INC.

manuf	model	serialno	slugno	curies	cidate	cicalcinv1	cicalcdate1	cicalcinv2	cicalcdate2	countinv	locate
theratronics	rp	267		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	268		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	273		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	275		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	276		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	277		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	285		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	286		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	290		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	291		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	293		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	297		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	302		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	304		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	305		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	306		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	309		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	310		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	311		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	312		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	314		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	315		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	322		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	33		3,840	7/1/95	1,432	12/31/02	1,297	10/2/03	1	
theratronics	rp	34		3,800	7/1/95	1,417	12/31/02	1,283	10/2/03	1	
theratronics	rp	35		3,700	7/1/95	1,380	12/31/02	1,249	10/2/03	1	
theratronics	rp	358		1,270	7/1/94	415	12/31/02	376	10/2/03	1	
theratronics	rp	359		1,330	7/1/94	435	12/31/02	394	10/2/03	1	
theratronics	rp	36		4,160	7/1/95	1,551	12/31/02	1,405	10/2/03	1	
theratronics	rp	360		1,260	7/1/94	412	12/31/02	373	10/2/03	1	
theratronics	rp	367		1,310	7/1/94	428	12/31/02	388	10/2/03	1	
theratronics	rp	368		1,260	10/1/94	426	12/31/02	386	10/2/03	1	
theratronics	rp	369		1,280	7/1/94	419	12/31/02	379	10/2/03	1	
theratronics	rp	371		1,300	7/1/94	425	12/31/02	385	10/2/03	1	
theratronics	rp	372		1,250	7/1/94	409	12/31/02	370	10/2/03	1	
theratronics	rp	373		1,270	7/1/94	415	12/31/02	376	10/2/03	1	
theratronics	rp	375		1,250	7/1/94	409	12/31/02	370	10/2/03	1	
theratronics	rp	382		1,300	10/1/94	439	12/31/02	398	10/2/03	1	
theratronics	rp	383		160	7/1/94	52	12/31/02	47	10/2/03	1	
theratronics	rp	386		1,300	10/1/94	439	12/31/02	398	10/2/03	1	
theratronics	rp	388		1,220	10/1/94	412	12/31/02	373	10/2/03	1	

NEUTRON PRODUCTS, INC.

manuf	model	serialno	slugno	curies	cidate	cicalcinv1	cicalcdate1	cicalcinv2	cicalcdate2	countinv	locate
theratronics	rp	392		1,300	10/1/94	439	12/31/02	398	10/2/03	1	
theratronics	rp	394		1,140	7/1/95	425	12/31/02	385	10/2/03	1	
theratronics	rp	471		1,050	7/1/95	392	12/31/02	355	10/2/03	1	
theratronics	rp	555		1,020	7/1/95	380	12/31/02	344	10/2/03	1	
theratronics	rp	556		1,050	7/1/95	392	12/31/02	355	10/2/03	1	
theratronics	rp	631		1,460	7/1/94	477	12/31/02	432	10/2/03	1	
theratronics	rp	633		1,380	10/1/94	466	12/31/02	422	10/2/03	1	
theratronics	rp	715		480	12/1/93	145	12/31/02	132	10/2/03	1	
theratronics	rp	717		480	12/1/93	145	12/31/02	132	10/2/03	1	
theratronics	rp	718		540	12/1/93	164	12/31/02	148	10/2/03	1	
theratronics	rp	720		480	12/1/93	145	12/31/02	132	10/2/03	1	
theratronics	rp	721		480	12/1/93	145	12/31/02	132	10/2/03	1	
theratronics	rp	722		540	12/1/93	164	12/31/02	148	10/2/03	1	
theratronics	rp	723		590	12/1/93	179	12/31/02	162	10/2/03	1	
theratronics	rp	727		380	12/1/93	115	12/31/02	104	10/2/03	1	
theratronics	rp	728		540	12/1/93	164	12/31/02	148	10/2/03	1	
theratronics	rp	729		540	12/1/93	164	12/31/02	148	10/2/03	1	
theratronics	rp	730		480	12/1/93	145	12/31/02	132	10/2/03	1	
theratronics	rp	731		540	12/1/93	164	12/31/02	148	10/2/03	1	
theratronics	rp	732		430	12/1/93	130	12/31/02	118	10/2/03	1	
theratronics	rp	733		430	12/1/93	130	12/31/02	118	10/2/03	1	
theratronics	rp	734		380	12/1/93	115	12/31/02	104	10/2/03	1	
theratronics	rp	735		480	12/1/93	145	12/31/02	132	10/2/03	1	
theratronics	rp	736		480	12/1/93	145	12/31/02	132	10/2/03	1	
theratronics	rp	737		380	12/1/93	115	12/31/02	104	10/2/03	1	
theratronics	rp	738		380	12/1/93	115	12/31/02	104	10/2/03	1	
theratronics	rp	739		480	12/1/93	145	12/31/02	132	10/2/03	1	
theratronics	rp	740		380	12/1/93	115	12/31/02	104	10/2/03	1	
theratronics	rp	741		480	12/1/93	145	12/31/02	132	10/2/03	1	
theratronics	rp	742		260	12/1/93	79	12/31/02	71	10/2/03	1	
theratronics	rp	743		430	12/1/93	130	12/31/02	118	10/2/03	1	
theratronics	rp	744		270	12/1/93	82	12/31/02	74	10/2/03	1	
theratronics	rp	745		320	12/1/93	97	12/31/02	88	10/2/03	1	
theratronics	rp	760		270	12/1/93	82	12/31/02	74	10/2/03	1	
theratronics	rp	762		270	12/1/93	82	12/31/02	74	10/2/03	1	
theratronics	rp	763		270	12/1/93	82	12/31/02	74	10/2/03	1	
theratronics	rp	764		320	12/1/93	97	12/31/02	88	10/2/03	1	
theratronics	rp	765		380	12/1/93	115	12/31/02	104	10/2/03	1	
theratronics	rp	767		480	12/1/93	145	12/31/02	132	10/2/03	1	
theratronics	rp	76761		380	12/1/93	115	12/31/02	104	10/2/03	1	
theratronics	rp	76766		540	12/1/93	164	12/31/02	148	10/2/03	1	

NEUTRON PRODUCTS, INC.

manuf	model	serialno	slugno	curies	cidate	cicalcinv1	cicalcdate1	cicalcinv2	cicalcdate2	countinv	locate
theratronics	rp	768		700	12/1/93	212	12/31/02	192	10/2/03	1	
theratronics	rp	769		650	12/1/93	197	12/31/02	178	10/2/03	1	
theratronics	rp	770		590	12/1/93	179	12/31/02	162	10/2/03	1	
theratronics	rp	771		590	12/1/93	179	12/31/02	162	10/2/03	1	
theratronics	rp	77106		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	772		650	12/1/93	197	12/31/02	178	10/2/03	1	
theratronics	rp	77203		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	77253		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	77261		1	5/1/96	0	12/31/02	0	10/2/03	1	
theratronics	rp	773		430	12/1/93	130	12/31/02	118	10/2/03	1	
theratronics	rp	775		480	12/1/93	145	12/31/02	132	10/2/03	1	
theratronics	rp	777		430	12/1/93	130	12/31/02	118	10/2/03	1	
theratronics	rp	778		430	12/1/93	130	12/31/02	118	10/2/03	1	
theratronics	rp	779		650	12/1/93	197	12/31/02	178	10/2/03	1	
theratronics	rp	NO ID		1,090	7/1/95	406	12/31/02	368	10/2/03	1	
theratronics		S1009		790	9/15/75	22	12/31/02	20	10/2/03	1	
theratronics		S1110		1,583	10/16/66	14	12/31/02	12	10/2/03	1	
theratronics		S1111		1,200	3/25/73	24	12/31/02	22	10/2/03	1	
theratronics		S1154		2,550	7/15/72	46	12/31/02	42	10/2/03	1	
theratronics		S1181		1,805	10/2/67	18	12/31/02	16	10/2/03	1	
theratronics		S123		2,901	12/15/74	73	12/31/02	66	10/2/03	1	
theratronics		S1392		1,936	7/7/76	60	12/31/02	54	10/2/03	1	
theratronics		S1424		1,060	1/1/76	30	12/31/02	28	10/2/03	1	
theratronics		S1447		2,694	5/1/69	32	12/31/02	29	10/2/03	1	
theratronics		S1454		1,200	6/22/73	25	12/31/02	22	10/2/03	1	
theratronics		S1462		3,085	8/1/77	109	12/31/02	99	10/2/03	1	
theratronics		S1468		1,457	2/1/77	48	12/31/02	44	10/2/03	1	
theratronics		S1472		949	6/26/75	25	12/31/02	23	10/2/03	1	
theratronics		S1530		1,386	7/26/74	33	12/31/02	30	10/2/03	1	
theratronics		S1536		694	11/10/75	20	12/31/02	18	10/2/03	1	
theratronics		S1544		2,928	8/1/76	91	12/31/02	82	10/2/03	1	
theratronics		S1579		1,018	2/5/70	13	12/31/02	12	10/2/03	1	
theratronics		S1714		2,421	3/15/71	37	12/31/02	34	10/2/03	1	
theratronics		S1724		5,570	3/1/71	85	12/31/02	77	10/2/03	1	
theratronics		S1748		1,247	9/6/75	34	12/31/02	31	10/2/03	1	
theratronics		S1769		3,641	10/15/75	102	12/31/02	92	10/2/03	1	
theratronics		S1778		1,600	8/3/74	38	12/31/02	35	10/2/03	1	
theratronics		S1802		1,342	5/1/70	18	12/31/02	17	10/2/03	1	
theratronics		S1812		1,257	12/26/77	47	12/31/02	42	10/2/03	1	
theratronics		S1823		2,437	6/16/72	44	12/31/02	40	10/2/03	1	
theratronics		S1846		8,624	2/10/72	149	12/31/02	134	10/2/03	1	

NEUTRON PRODUCTS, INC.

manuf	model	serialno	slugno	curies	cidate	cicalcinv1	cicalcdate1	cicalcinv2	cicalcdate2	countinv	locate
theratronics		S1861		3,821	5/14/72	68	12/31/02	62	10/2/03	1	
theratronics		S1883		4,175	6/15/72	75	12/31/02	68	10/2/03	1	
theratronics		S1935		7,792	9/15/72	145	12/31/02	131	10/2/03	1	
theratronics		S1946		2,386	4/15/80	120	12/31/02	109	10/2/03	1	
theratronics		S1969		4,693	1/8/73	91	12/31/02	83	10/2/03	1	
theratronics		S2003		2,740	5/17/79	123	12/31/02	111	10/2/03	1	
theratronics		S2019		1,787	1/18/80	87	12/31/02	79	10/2/03	1	
theratronics		S2022		2,475	7/1/78	99	12/31/02	89	10/2/03	1	
theratronics		S2052		6,138	7/11/73	127	12/31/02	115	10/2/03	1	
theratronics		S2069		5,392	8/20/73	113	12/31/02	103	10/2/03	1	
theratronics		S2071		2,653	8/9/73	56	12/31/02	50	10/2/03	1	
theratronics		S2086		4,606	12/3/73	101	12/31/02	91	10/2/03	1	
theratronics		S2093		5,860	12/3/73	128	12/31/02	116	10/2/03	1	
theratronics		S2107		8,996	12/28/73	198	12/31/02	180	10/2/03	1	
theratronics		S2127		1	1/1/60	0	12/31/02	0	10/2/03	1	
theratronics		S2152		4,306	12/13/79	208	12/31/02	188	10/2/03	1	
theratronics		S2181		5,445	4/15/74	125	12/31/02	113	10/2/03	1	
theratronics		S2183		6,573	4/22/74	151	12/31/02	137	10/2/03	1	
theratronics		S2193		2,420	8/10/79	112	12/31/02	101	10/2/03	1	
theratronics		S2216		2,288	5/7/74	53	12/31/02	48	10/2/03	1	
theratronics		S2220		5,478	6/12/74	128	12/31/02	116	10/2/03	1	
theratronics		S2272		5,918	9/25/74	144	12/31/02	130	10/2/03	1	
theratronics		S2287		2,110	9/30/83	168	12/31/02	152	10/2/03	1	
theratronics		S2289		3,200	12/1/79	154	12/31/02	139	10/2/03	1	
theratronics		S2297		6,252	10/23/74	154	12/31/02	139	10/2/03	1	
theratronics		S2338		1	1/1/60	0	12/31/02	0	10/2/03	1	
theratronics		S2370		1	1/1/60	0	12/31/02	0	10/2/03	1	
theratronics		S2386		7,678	6/16/75	205	12/31/02	186	10/2/03	1	
theratronics		S2388		1,516	7/15/75	41	12/31/02	37	10/2/03	1	
theratronics		S2397		1	1/1/60	0	12/31/02	0	10/2/03	1	
theratronics		S2398		1,591	1/1/96	634	12/31/02	574	10/2/03	1	
theratronics		S2456		1,509	1/1/96	601	12/31/02	544	10/2/03	1	
theratronics		S2477		5,766	2/20/76	169	12/31/02	153	10/2/03	1	
theratronics		S2512		5,889	4/2/76	175	12/31/02	158	10/2/03	1	
theratronics		S2515		3,978	11/15/81	247	12/31/02	224	10/2/03	1	
theratronics		S2528		5,740	6/8/76	175	12/31/02	158	10/2/03	1	
theratronics		S2553		4,440	7/5/76	136	12/31/02	123	10/2/03	1	
theratronics		S2590		2,359	10/1/76	75	12/31/02	68	10/2/03	1	
theratronics		S2594		8,000	10/1/76	254	12/31/02	230	10/2/03	1	
theratronics		S2603		5,871	11/18/76	189	12/31/02	171	10/2/03	1	
theratronics		S2647		3,200	8/19/82	220	12/31/02	199	10/2/03	1	

NEUTRON PRODUCTS, INC.

manuf	model	serialno	slugno	curies	cidate	cicalcinv1	cicalcdate1	cicalcinv2	cicalcdate2	countinv	locate
theratronics		S2650		4,032	3/31/77	136	12/31/02	124	10/2/03	1	
theratronics		S2667		2,370	9/9/83	187	12/31/02	169	10/2/03	1	
theratronics		S2668		5,788	6/7/77	201	12/31/02	182	10/2/03	1	
theratronics		S2670		8,214	6/8/77	285	12/31/02	258	10/2/03	1	
theratronics		S2684		5,691	6/27/77	199	12/31/02	180	10/2/03	1	
theratronics		S2697		270	12/21/85	29	12/31/02	26	10/2/03	1	
theratronics		S2713		5,660	10/15/77	206	12/31/02	186	10/2/03	1	
theratronics		S2769		3,245	2/15/78	123	12/31/02	112	10/2/03	1	
theratronics		S2777		2,219	4/5/84	189	12/31/02	171	10/2/03	1	
theratronics		S2795		4,604	4/21/78	179	12/31/02	162	10/2/03	1	
theratronics		S2832		5,600	7/6/78	224	12/31/02	203	10/2/03	1	
theratronics		S2876		3,565	10/10/78	147	12/31/02	134	10/2/03	1	
theratronics		S2877		2,110	9/30/83	168	12/31/02	152	10/2/03	1	
theratronics		S2889		5,979	9/14/79	279	12/31/02	253	10/2/03	1	
theratronics		S2919		7,484	1/16/79	321	12/31/02	290	10/2/03	1	
theratronics		S2945		2,116	2/12/86	230	12/31/02	208	10/2/03	1	
theratronics		S2981		5,437	6/20/79	246	12/31/02	223	10/2/03	1	
theratronics		S2990		1	1/1/60	0	12/31/02	0	10/2/03	1	
theratronics		S3035		402	4/19/97	190	12/31/02	172	10/2/03	1	
theratronics		S3040		6,487	11/19/79	310	12/31/02	281	10/2/03	1	
theratronics		S3068		985	1/1/96	392	12/31/02	355	10/2/03	1	
theratronics		S3070		3,367	2/5/80	166	12/31/02	150	10/2/03	1	
theratronics		S3102		3,917	4/10/80	197	12/31/02	179	10/2/03	1	
theratronics		S3123		2,678	8/2/85	271	12/31/02	246	10/2/03	1	
theratronics		S3124		3,700	9/1/84	332	12/31/02	301	10/2/03	1	
theratronics		S3133		4,955	8/1/80	260	12/31/02	235	10/2/03	1	
theratronics		S3134		1,432	1/1/96	571	12/31/02	517	10/2/03	1	
theratronics		S3157		4,181	10/27/80	226	12/31/02	205	10/2/03	1	
theratronics		S316		1	1/1/60	0	12/31/02	0	10/2/03	1	
theratronics		S3166		3,461	10/27/80	187	12/31/02	170	10/2/03	1	
theratronics		S3169		2,789	1/31/86	302	12/31/02	273	10/2/03	1	
theratronics		S3184		3,508	11/26/80	192	12/31/02	174	10/2/03	1	
theratronics		S3190		3,535	12/17/80	195	12/31/02	177	10/2/03	1	
theratronics		S3250		4,144	4/24/81	239	12/31/02	217	10/2/03	1	
theratronics		S3301		2,534	11/2/81	157	12/31/02	142	10/2/03	1	
theratronics		S3304		1,085	1/1/96	432	12/31/02	391	10/2/03	1	
theratronics		S3326		1	1/1/60	0	12/31/02	0	10/2/03	1	
theratronics		S3354		2,330	9/13/85	240	12/31/02	217	10/2/03	1	
theratronics		S3389		1,700	4/2/87	214	12/31/02	194	10/2/03	1	
theratronics		S3409		3,332	9/9/82	231	12/31/02	209	10/2/03	1	
theratronics		S3426		1,853	1/1/96	738	12/31/02	669	10/2/03	1	

NEUTRON PRODUCTS, INC.

manuf	model	serialno	slugno	curies	cidate	cicalcinv1	cicalcdate1	cicalcinv2	cicalcdate2	countinv	locate
theratronics		S3686		7,060	11/5/84	649	12/31/02	588	10/2/03	1	
theratronics		S3728		877	1/1/96	349	12/31/02	316	10/2/03	1	
theratronics		S3742		1	1/1/60	0	12/31/02	0	10/2/03	1	
theratronics		S3752		1,708	1/1/96	681	12/31/02	616	10/2/03	1	
theratronics		S3777		1,433	1/1/96	571	12/31/02	517	10/2/03	1	
theratronics		S3793		1,301	6/1/97	624	12/31/02	565	10/2/03	1	
theratronics		S3803		1,571	6/27/89	266	12/31/02	241	10/2/03	1	
theratronics		S3882		2,776	10/11/96	1,225	12/31/02	1,109	10/2/03	1	
theratronics		S3889		3,000	8/18/84	268	12/31/02	243	10/2/03	1	
theratronics		S3949		1,550	1/1/96	618	12/31/02	559	10/2/03	1	
theratronics		S3998		1	1/1/60	0	12/31/02	0	10/2/03	1	
theratronics		S4001		1	1/1/60	0	12/31/02	0	10/2/03	1	
theratronics		S4042		5,350	9/25/87	719	12/31/02	651	10/2/03	1	
theratronics		S4076		1,915	1/1/96	763	12/31/02	691	10/2/03	1	
theratronics		S4108		1,816	1/1/96	724	12/31/02	655	10/2/03	1	
theratronics		S4181		4,850	10/6/88	746	12/31/02	676	10/2/03	1	
theratronics		S422		1,330	10/15/67	13	12/31/02	12	10/2/03	1	
theratronics		S4277		2,674	12/30/95	1,065	12/31/02	964	10/2/03	1	
theratronics		S4294		1,700	10/5/97	854	12/31/02	773	10/2/03	1	
theratronics		S4302		2,850	11/3/96	1,268	12/31/02	1,148	10/2/03	1	
theratronics		S4339		2,903	6/1/97	1,393	12/31/02	1,262	10/2/03	1	
theratronics		S4416		7,457	1/1/91	1,540	12/31/02	2,057	10/17/00	1	
theratronics		S4424		4,293	1/1/96	1,711	12/31/02	1,549	10/2/03	1	
theratronics		S4506		1	1/1/60	0	12/31/02	0	10/2/03	1	
theratronics		S4636		4,479	7/1/97	2,173	12/31/02	1,968	10/2/03	1	
theratronics		S4643		3,350	5/31/97	1,607	12/31/02	1,455	10/2/03	1	
theratronics		S635		362	10/1/78	15	12/31/02	14	10/2/03	1	
theratronics		S675		1,340	12/15/69	17	12/31/02	16	10/2/03	1	
theratronics		S762		790	4/26/75	21	12/31/02	19	10/2/03	1	
theratronics		S80		1,100	12/29/73	24	12/31/02	22	10/2/03	1	
theratronics		S868		1,364	2/1/74	30	12/31/02	28	10/2/03	1	
theratronics		S890		1,799	4/15/65	13	12/31/02	11	10/2/03	1	
theratronics		S894		690	12/15/76	22	12/31/02	20	10/2/03	1	
theratronics		S925		1,720	11/15/68	19	12/31/02	18	10/2/03	1	
theratronics		S932		556	11/3/74	14	12/31/02	12	10/2/03	1	
theratronics		S944		1	1/1/60	0	12/31/02	0	10/2/03	1	
theratronics		S969		1	1/1/60	0	12/31/02	0	10/2/03	1	
unknown	?	?		1,160	1/1/60	4	12/31/02	4	10/2/03	1	
unknown	CIS	3244		915	8/31/97	454	12/31/02	411	10/2/03	1	
unknown		12715.2		1,150	1/1/95	402	12/31/02	364	10/2/03	1	
unknown		13032.2		845	3/1/93	232	12/31/02	210	10/2/03	1	

NEUTRON PRODUCTS, INC.

manuf	model	serialno	slugno	curies	cidate	cicalcinv1	cicalcdate1	cicalcinv2	cicalcdate2	countinv	locate
unknown		13165		1,980	7/1/95	738	12/31/02	669	10/2/03	1	
unknown		13166		1,930	7/1/95	720	12/31/02	652	10/2/03	1	
unknown		13173		2,240	7/1/95	835	12/31/02	756	10/2/03	1	
unknown		13174		1,880	7/1/95	701	12/31/02	635	10/2/03	1	
unknown		13177		1,850	7/1/95	690	12/31/02	625	10/2/03	1	
unknown		13995		1,260	7/1/95	470	12/31/02	425	10/2/03	1	
unknown		14006		1,260	7/1/95	470	12/31/02	425	10/2/03	1	
unknown		14010		1,300	7/1/95	485	12/31/02	439	10/2/03	1	
unknown		14064		1,260	7/1/95	470	12/31/02	425	10/2/03	1	
unknown		150		1,770	7/1/95	660	12/31/02	598	10/2/03	1	
unknown		152		1,120	7/1/94	366	12/31/02	332	10/2/03	1	
unknown		159		1,230	7/1/95	459	12/31/02	415	10/2/03	1	
unknown		16991		1,570	10/1/94	531	12/31/02	481	10/2/03	1	
unknown		17915		1,600	10/1/94	541	12/31/02	490	10/2/03	1	
unknown		17985		2,090	1/1/95	730	12/31/02	661	10/2/03	1	
unknown		21541.3		370	7/1/94	121	12/31/02	110	10/2/03	1	
unknown		22056		1,420	10/1/94	480	12/31/02	435	10/2/03	1	
unknown		24258.2		1,350	7/1/94	441	12/31/02	400	10/2/03	1	
unknown		251		1,000	7/1/95	373	12/31/02	338	10/2/03	1	
unknown		26053		4,480	10/1/94	1,514	12/31/02	1,371	10/2/03	1	
unknown		383.2		160	7/1/94	52	12/31/02	47	10/2/03	1	
unknown		394		1,140	7/1/95	425	12/31/02	385	10/2/03	1	
unknown		555		1,020	7/1/95	380	12/31/02	344	10/2/03	1	
unknown		556		1,050	7/1/95	392	12/31/02	355	10/2/03	1	
unknown		631		1,460	7/1/94	477	12/31/02	432	10/2/03	1	
unknown		715		501	12/1/93	152	12/31/02	137	10/2/03	1	
unknown		717		561	12/1/93	170	12/31/02	154	10/2/03	1	
unknown		718		568	12/1/93	172	12/31/02	156	10/2/03	1	
unknown		720		520	12/1/93	158	12/31/02	143	10/2/03	1	
unknown		721		511	12/1/93	155	12/31/02	140	10/2/03	1	
unknown		722		509	12/1/93	154	12/31/02	140	10/2/03	1	
unknown		723		541	12/1/93	164	12/31/02	148	10/2/03	1	
unknown		727		436	12/1/93	132	12/31/02	120	10/2/03	1	
unknown		728		531	12/1/93	161	12/31/02	146	10/2/03	1	
unknown		729		542	12/1/93	164	12/31/02	149	10/2/03	1	
unknown		730		526	12/1/93	159	12/31/02	144	10/2/03	1	
unknown		731		561	12/1/93	170	12/31/02	154	10/2/03	1	
unknown		732		503	12/1/93	152	12/31/02	138	10/2/03	1	
unknown		733		424	12/1/93	128	12/31/02	116	10/2/03	1	
unknown		734		409	12/1/93	124	12/31/02	112	10/2/03	1	
unknown		735		507	12/1/93	154	12/31/02	139	10/2/03	1	

NEUTRON PRODUCTS, INC.

manuf	model	serialno	slugno	curies	cidate	cicalcinv1	cicalcdate1	cicalcinv2	cicalcdate2	countinv	locate
unknown		736		446	12/1/93	135	12/31/02	122	10/2/03	1	
unknown		737		421	12/1/93	128	12/31/02	116	10/2/03	1	
unknown		738		440	12/1/93	133	12/31/02	121	10/2/03	1	
unknown		739		486	12/1/93	147	12/31/02	133	10/2/03	1	
unknown		740		434	12/1/93	131	12/31/02	119	10/2/03	1	
unknown		741		502	12/1/93	152	12/31/02	138	10/2/03	1	
unknown		742		417	12/1/93	126	12/31/02	114	10/2/03	1	
unknown		743		415	12/1/93	126	12/31/02	114	10/2/03	1	
unknown		744		325	12/1/93	98	12/31/02	89	10/2/03	1	
unknown		745		363	12/1/93	110	12/31/02	100	10/2/03	1	
unknown		760		341	12/1/93	103	12/31/02	94	10/2/03	1	
unknown		761		338	12/1/93	102	12/31/02	93	10/2/03	1	
unknown		762		348	12/1/93	105	12/31/02	95	10/2/03	1	
unknown		763		319	12/1/93	97	12/31/02	88	10/2/03	1	
unknown		764		382	12/1/93	116	12/31/02	105	10/2/03	1	
unknown		765		381	12/1/93	115	12/31/02	105	10/2/03	1	
unknown		766		493	12/1/93	149	12/31/02	135	10/2/03	1	
unknown		767		513	12/1/93	155	12/31/02	141	10/2/03	1	
unknown		768		628	12/1/93	190	12/31/02	172	10/2/03	1	
unknown		769		657	12/1/93	199	12/31/02	180	10/2/03	1	
unknown		770		572	12/1/93	173	12/31/02	157	10/2/03	1	
unknown		771		545	12/1/93	165	12/31/02	150	10/2/03	1	
unknown		772		620	12/1/93	188	12/31/02	170	10/2/03	1	
unknown		773		464	12/1/93	141	12/31/02	127	10/2/03	1	
unknown		775		474	12/1/93	144	12/31/02	130	10/2/03	1	
unknown		777		431	12/1/93	131	12/31/02	118	10/2/03	1	
unknown		778		827	12/1/93	251	12/31/02	227	10/2/03	1	
unknown		779		604	12/1/93	183	12/31/02	166	10/2/03	1	
unknown		CEA3612		3,000	10/11/83	240	12/31/02	217	10/2/03	1	
unknown		noid		1,090	7/1/95	406	12/31/02	368	10/2/03	1	
usnuc		W550		82	8/15/96	35	12/31/02	32	10/2/03	1	
		AMS2615		650	9/1/02	622	12/31/02	564	10/2/03	1	tx
		GET-20-205		634	1/1/99	375	12/31/02	339	10/2/03	1	
x	x	x	x	x	x	378,149	x	343,092	x	935	x

NPI

NOTE: THIS INVENTORY DOES NOT INCLUDE THE D1 LOW ACTIVITY SOURCE PLAQUE.

irradinv02
NEUTRON PRODUCTS, INC.
COBALT-60 IN IRRADIATORS
10/2/03 3:05 PM

irrad	recdate	recfrom	manuf	model	serialno	slugno	ci	cidate	shipdate	shipto	shiptoname	split	tto
d1	11/13/01	d2	npi	nprp	973		11,300	12/1/01					
d1	11/13/01	d2	npi	nprp	972		10,500	12/1/01					
d1	11/13/01	d2	npi	nprp	9666		8,600	12/1/01					
d1	11/13/01	d2	npi	nprp	92401		11,300	12/1/01					
d1	11/13/01	d2	npi	nprp	923		8,900	12/1/01					
d1	11/13/01	rdp01.4	npi	nprp	0191		4,000	12/1/01					
d1	11/13/01	rdp01.4	npi	nprp	0190		4,200	12/1/01					
d1	11/13/01	rdp01.3	npi	nprp	0189		3,200	12/1/01					
d1	11/13/01	rdp01.3	npi	nprp	0188		2,700	12/1/01					
d1	11/13/01	rdp01.3	npi	nprp	0187		2,700	12/1/01					
d1	11/13/01	rdp01.3	npi	nprp	0186		3,000	12/1/01					
d1	11/13/01	rdp01.3	npi	nprp	0185		4,500	12/1/01					
d1	11/13/01	rdp01.3	npi	nprp	0184		4,200	12/1/01					
d1	11/13/01	rdp01.2	npi	nprp	01114		1,600	12/1/01					
d1	11/13/01	rdp01.2	npi	nprp	01113		1,600	12/1/01					
d1	11/13/01	rdp01.2	npi	nprp	01112		1,600	12/1/01					
d1	11/13/01	rdp01.2	npi	nprp	01111		1,700	12/1/01					
d1	11/13/01	rdp01.2	npi	nprp	01110		1,500	12/1/01					
d1	11/13/01	rdp01.2	npi	nprp	01109		1,300	12/1/01					
d1	11/13/01	rdp01.2	npi	nprp	01108		1,600	12/1/01					
d1	11/13/01	rdp01.2	npi	nprp	01107		1,600	12/1/01					
d1	11/13/01	rdp01.2	npi	nprp	01106		1,700	12/1/01					
d1	11/13/01	rdp01.2	npi	nprp	01105		1,500	12/1/01					
d1	11/13/01	rdp01.2	npi	nprp	01104		1,500	12/1/01					
d1	11/13/01	rdp01.2	npi	nprp	01103		1,500	12/1/01					
d1	11/13/01	rdp01.2	npi	nprp	01102		1,500	12/1/01					
d1	11/13/01	rdp01.2	npi	nprp	01101		1,500	12/1/01					
d1	11/13/01	d2	npi	nprp	0031		11,600	12/1/01					
d1	11/1/99	d2	npi	nprp	94001		13,932	12/31/97					
d1	12/31/97	orig	npi	nprp	93302		6,800	2/1/96					
d1	12/1/98	d2	npi	nprp	93195		11,100	12/1/98					
d1	12/31/97	orig	npi	nprp	93193.1		7,900	2/1/96					
d1	12/1/98	d2	npi	nprp	93193		11,100	12/1/98					
d1	12/31/97	orig	npi	nprp	93158		2,400	2/1/96					
d1	12/31/97	orig	npi	nprp	93157		2,000	2/1/96					
d1	12/31/97	orig	npi	nprp	93154		2,400	2/1/96					
d1	12/31/97	orig	npi	nprp	93153		2,500	2/1/96					
d1	12/31/97	orig	npi	nprp	93152		2,400	2/1/96					
d1	12/31/97	orig	npi	nprp	93150		3,200	2/1/96					

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RADIOLOGICAL HEALTH PROGRAM

irradinv02
NEUTRON PRODUCTS, INC.
COBALT-60 IN IRRADIATORS
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irrad	recdate	recfrom	manuf	model	serialno	slugno	ci	cidate	shipdate	shipto	shiptoname	split	tto
d1	12/31/97	orig	npi	nprp	93149		3,100	2/1/96					
d1	12/31/97	orig	npi	nprp	93148		3,100	2/1/96					
d1	12/31/97	orig	npi	nprp	93147		3,000	2/1/96					
d1	12/31/97	orig	npi	nprp	93146		2,800	2/1/96					
d1	12/31/97	orig	npi	nprp	93145		2,800	2/1/96					
d1	12/31/97	orig	npi	nprp	93144		2,500	2/1/96					
d1	12/31/97	orig	npi	nprp	93141		1,700	2/1/96					
d1	12/31/97	orig	npi	nprp	93140		1,800	2/1/96					
d1	12/31/97	orig	npi	nprp	93136		2,400	2/1/96					
d1	12/31/97	orig	npi	nprp	93135		2,400	2/1/96					
d1	12/31/97	orig	npi	nprp	93134		2,400	2/1/96					
d1	12/31/97	orig	npi	nprp	93133		2,500	2/1/96					
d1	12/31/97	orig	npi	nprp	93132		2,500	2/1/96					
d1	12/31/97	orig	npi	nprp	93131		2,500	2/1/96					
d1	12/31/97	orig	npi	nprp	93130		2,600	2/1/96					
d1	12/31/97	orig	npi	nprp	93128		2,500	2/1/96					
d1	12/31/97	orig	npi	nprp	93127		2,500	2/1/96					
d1	12/31/97	orig	npi	nprp	93126		2,500	2/1/96					
d1	12/31/97	orig	npi	nprp	93125		2,400	2/1/96					
d1	12/31/97	orig	npi	nprp	92402		7,600	2/1/96					
d1	12/31/97	orig	npi	nprp	91326		5,800	2/1/96					
d1	12/31/97	orig	npi	nprp	91322		5,900	2/1/96					
d1	12/1/98	d2	npi	nprp	90304		9,500	12/1/98					
d1	12/1/98	d2	npi	nprp	89015		10,200	12/1/98					
d1	12/31/97	orig	npi	nprp	89009		9,000	2/1/96					
d1	12/31/97	orig	npi	nprp	89007		9,000	2/1/96					
d1	12/31/97	orig	npi	nprp	89005		9,400	2/1/96					
d1	12/31/97	orig	npi	nprp	87039		8,900	2/1/96					
d1	12/31/97	orig	npi	nprp	87038		9,100	2/1/96					
d1	12/31/97	orig	npi	nprp	87037		8,700	2/1/96					
d1	12/31/97	orig	npi	nprp	87036		8,900	2/1/96					
d1	12/31/97	orig	npi	nprp	87033		9,000	2/1/96					
d1	12/31/97	orig	npi	nprp	87032		9,000	2/1/96					
d1	12/31/97	orig	npi	nprp	87031		9,200	2/1/96					
d1	12/31/97	orig	npi	nprp	87030		8,800	2/1/96					
d1	12/31/97	orig	npi	nprp	85149		1,500	2/1/96					
d1	12/31/97	orig	npi	nprp	85004		8,200	2/1/96					
d1	12/31/97	orig	npi	nprp	85003		9,000	2/1/96					
d1	12/31/97	orig	npi	nprp	85002		9,200	2/1/96					

irradinv02
NEUTRON PRODUCTS, INC.
COBALT-60 IN IRRADIATORS
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irrad	recdate	recfrom	manuf	model	serialno	slugno	ci	cidate	shipdate	shipto	shiptoname	split	tto
d1	12/31/97	orig	npi	nprp	85001		9,400	2/1/96					
d1	12/31/97	orig	npi	nprp	83347		1,100	2/1/96					
d1	12/31/97	orig	npi	nprp	83345		1,400	2/1/96					
d1	12/31/97	orig	npi	nprp	83344		1,500	2/1/96					
d1	12/1/98	3392	npi	nprp	83114		1,400	12/1/98					
d1	12/1/98	3392	npi	nprp	83113		1,400	12/1/98					
d1	12/1/98	3392	npi	nprp	83112		1,500	12/1/98					
d1	12/1/98	3392	npi	nprp	83111		1,500	12/1/98					
d1	12/1/98	3392	npi	nprp	83110		1,500	12/1/98					
d1	12/1/98	3392	npi	nprp	83109		1,500	12/1/98					
d1	12/1/98	3392	npi	nprp	83108		1,500	12/1/98					
d1	12/1/98	3392	npi	nprp	83107		1,500	12/1/98					
d1	12/1/98	3392	npi	nprp	83106		1,500	12/1/98					
d1	12/1/98	3392	npi	nprp	83105		1,500	12/1/98					
d1	12/1/98	3392	npi	nprp	83104		1,500	12/1/98					
d1	12/1/98	3392	npi	nprp	83103		1,500	12/1/98					
d1	12/1/98	3392	npi	nprp	83102		1,500	12/1/98					
d1	12/1/98	3392	npi	nprp	83101		1,500	12/1/98					
d1	12/15/99	rdp99.6	npi	nprp	9969		2,900	12/1/99					
d1	12/15/99	rdp99.6	npi	nprp	9968		2,800	12/1/99					
d1	12/15/99	rdp99.6	npi	nprp	9967		2,900	12/1/99					
d1	12/15/99	rdp99.6	npi	nprp	9966		3,300	12/1/99					
d1	12/15/99	rdp99.6	npi	nprp	9965		2,900	12/1/99					
d1	12/15/99	rdp99.51	npi	nprp	9952		2,200	12/1/99					
d1	12/15/99	rdp99.51	npi	nprp	9951		2,100	12/1/99					
d1	12/15/99	rdp99.51	npi	nprp	9950		2,200	12/1/99					
d1	12/15/99	rdp99.51	npi	nprp	9949		2,100	12/1/99					
d1	12/15/99	rdp99.51	npi	nprp	9948		1,900	12/1/99					
d1	12/15/99	rdp99.51	npi	nprp	9947		1,900	12/1/99					
d1	12/15/99	rdp99.51	npi	nprp	9946		2,400	12/1/99					
d1	12/15/99	rdp99.51	npi	nprp	9945		2,100	12/1/99					
d1	12/15/99	rdp99.51	npi	nprp	9944		2,200	12/1/99					
d1	12/15/99	rdp99.51	npi	nprp	9943		1,900	12/1/99					
d1	12/15/99	rdp99.51	npi	nprp	9942		2,500	12/1/99					
d1	12/15/99	rdp99.51	npi	nprp	9941		2,200	12/1/99					
d1	12/1/98	rdp98.10	npi	nprp	9876		6,300	12/1/98					
d1	12/1/98	rdp98.10	npi	nprp	9875		6,100	12/1/98					
d1	12/1/98	rdp98.10	npi	nprp	9874		6,100	12/1/98					
d1	12/1/98	rdp98.10	npi	nprp	9873		6,100	12/1/98					

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NEUTRON PRODUCTS, INC.
COBALT-60 IN IRRADIATORS
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irrad	recdate	recfrom	manuf	model	serialno	slugno	ci	cidate	shipdate	shipto	shiptoname	split	tto
d1	12/1/98	rdp98.10	npi	nprp	9872		6,800	12/1/98					
d1	12/1/98	rdp98.10	npi	nprp	9871		6,800	12/1/98					
d1	12/31/97	orig	npi	nprp	9672		6,800	2/1/96					
d1	12/31/97	orig	npi	nprp	9671		6,800	2/1/96					
d1	12/31/97	orig	npi	nprp	9670		6,500	2/1/96					
d1	12/31/97	orig	npi	nprp	9669		5,700	2/1/96					
d1	12/31/97	orig	npi	nprp	9668		5,200	2/1/96					
d1	12/31/97	orig	npi	nprp	9667		6,200	2/1/96					
d1	12/1/98	d2	npi	nprp	9665		10,600	12/1/98					
d1	12/1/98	d2	npi	nprp	9664		10,000	12/1/98					
d1	12/1/98	d2	npi	nprp	9663		10,400	12/1/98					
d1	12/1/98	d2	npi	nprp	9662		10,300	12/1/98					
d1	11/1/99	d2	npi	nprp	9658		14,748	12/31/97					
d1	11/1/99	d2	npi	nprp	9654		13,951	12/31/97					
d1	11/1/99	d2	npi	nprp	9653		13,777	12/31/97					
d1	12/31/97	orig	npi	nprp	9320		8,500	2/1/96					
d1	12/31/97	orig	npi	nprp	9318		7,600	2/1/96					
d1	12/31/97	orig	npi	nprp	8538		1,800	2/1/96					
d1	12/31/97	orig	npi	nprp	8537		1,900	2/1/96					
d2	5/30/01	rdp01.2	npi	nprp	0182		19,000	6/1/01	1/1/02	split	0182split		
pl	1/1/02	0182split	npi	nptt	0182split	911347	1970	7/1/91					
pl	1/1/02	0182split	npi	nptt	0182split	981676	4060	6/1/98					
pl	1/1/02	0182split	npi	nptt	0182split	981678	5340	6/1/98					
pl	1/1/02	0182split	npi	nptt	0182split	981679	3350	6/1/98					
pl	1/1/02	0182split	npi	nptt	0182split	981709	4060	6/1/98					
pl	1/1/02	0182split	npi	nptt	0182split	981711	3290	6/1/98					
pl	1/1/02	0182split	npi	nptt	0182split	981712	3290	6/1/98					
pl	1/1/02	0182split	npi	nptt	0182split	981713	4190	6/1/98	3/26/02	3459	univ of alabama	T1531	
pl	1/1/02	0182split	npi	nptt	0182split	981714	3850	6/1/98					
pl	1/1/02	0182split	npi	nptt	0182split	981715	3780	6/1/98				T1532	
pl	1/1/02	0182split	npi	nptt	0182split	981716	3680	6/1/98				T1532	
pl	1/1/02	0182split	npi	nptt	0182split	981748	3720	6/1/98	3/26/02	3459	univ of alabama	T1531	
pl	1/1/02	0182split	npi	nptt	0182split	981749	3720	6/1/98					
d2	5/30/01	rdp01.2	npi	nprp	0181		31,200	6/1/01					
d2	5/30/01	rdp01.2	npi	nprp	0180		35,410	4/1/01					
d2	5/30/01	rdp01.2	npi	nprp	0178		15,310	4/1/01					
d2	5/30/01	rdp01.2	npi	nprp	0175		14,970	4/1/01					
d2	5/30/01	rdp01.2	npi	nprp	0171		15,950	4/1/01					
d2	11/8/01	rdp01.1	npi	nprp	0138		21,800	6/1/01					

Telethurapy Seed stock

irradinv02
NEUTRON PRODUCTS, INC.
COBALT-60 IN IRRADIATORS
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irrad	recdate	recfrom	manuf	model	serialno	slugno	ci	cidate	shipdate	shipto	shiptoname	split	tto
d2	11/8/01	rdp01.1	npi	nprp	0137		21,600	6/1/01					
d2	11/8/01	rdp01.1	npi	nprp	0136		22,100	6/1/01					
d2	11/8/01	rdp01.1	npi	nprp	0135		21,600	6/1/01					
d2	11/8/01	rdp01.1	npi	nprp	0134		21,900	6/1/01					
d2	11/8/01	rdp01.1	npi	nprp	0133		21,300	6/1/01					
d2	11/8/01	rdp01.1	npi	nprp	0132		21,300	6/1/01					
d2	11/8/01	rdp01.1	npi	nprp	0131		21,200	6/1/01					
d2	4/3/00	rdp00.2.5	npi	nprp	200030		29,000	11/1/99					
d2	4/3/00	rdp00.2.5	npi	nprp	200029		29,000	11/1/99					
d2	4/3/00	rdp00.2.5	npi	nprp	200028		29,000	11/1/99					
d2	4/3/00	rdp00.2.4	npi	nprp	200026		17,400	11/1/99					
d2	4/3/00	rdp00.2.4	npi	nprp	200025		18,400	11/1/99					
d2	4/3/00	rdp00.2.4	npi	nprp	200024		18,600	11/1/99					
d2	4/3/00	rdp00.2.4	npi	nprp	200022		18,200	11/1/99					
d2	4/3/00	rdp00.2.4	npi	nprp	200021		18,100	11/1/99					
d2	3/13/00	rdp00.2.3	npi	nprp	200020		21,300	11/1/99					
d2	3/13/00	rdp00.2.2	npi	nprp	200019		33,000	11/1/99					
d2	3/13/00	rdp00.2.1	npi	nprp	200018		32,800	11/1/99					
d2	12/31/97	orig	npi	nprp	94102		16,351	12/31/97					
d2	12/31/97	orig	npi	nprp	93197		12,128	12/31/97					
d2	12/31/97	orig	npi	nprp	93196		12,329	12/31/97					
d2	12/31/97	orig	npi	nprp	93194		12,164	12/31/97					
d2	12/31/97	orig	npi	nprp	93192		12,265	12/31/97					
d2	12/31/97	orig	npi	nprp	93191		12,824	12/31/97					
d2	12/31/97	orig	npi	nprp	93190		13,740	12/31/97					
d2	12/31/97	orig	npi	nprp	92002		14,629	12/31/97					
d2	12/31/97	orig	npi	nprp	92001		20,015	12/31/97					
d2	12/31/97	orig	npi	nprp	90305		8,949	12/31/97					
d2	12/31/97	orig	npi	nprp	90303		12,641	12/31/97					
d2	12/31/97	orig	npi	nprp	90301		14,363	12/31/97					
d2	12/31/97	orig	npi	nprp	89016		8,647	12/31/97					
d2	12/31/97	orig	npi	nprp	89004		9,783	12/31/97					
d2	12/31/97	orig	npi	nprp	89003		9,123	12/31/97					
d2	12/31/97	orig	npi	nprp	89002		10,049	12/31/97					
d2	12/31/97	orig	npi	nprp	89001		10,598	12/31/97					
d2	12/31/97	orig	npi	nprp	87013		4,763	12/31/97					
d2	12/31/97	orig	npi	nprp	87005		3,353	12/31/97					
d2	4/27/00	pl	npi	nprp	85192		6,641	12/31/97					
d2	11/1/99	rdp99.3	npi	nprp	9934		27,500	11/1/99					

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irrad	recdate	recfrom	manuf	model	serialno	slugno	ci	cidate	shipdate	shipto	hiptoname	split	tto
d2	11/1/99	rdp99.3	npi	nprp	9933		27,500	11/1/99					
d2	11/1/99	rdp99.3	npi	nprp	9932		29,000	11/1/99					
d2	11/1/99	rdp99.3	npi	nprp	9931		28,000	11/1/99					
d2	6/30/99	rdp99.2	npi	nprp	9908		7,500	11/1/99					
d2	6/30/99	rdp99.2	npi	nprp	9907		7,100	11/1/99					
d2	6/30/99	rdp99.2	npi	nprp	9906		7,200	11/1/99					
d2	6/30/99	rdp99.2	npi	nprp	9905		7,400	11/1/99					
d2	6/30/99	rdp99.2	npi	nprp	9904		6,700	11/1/99					
d2	6/30/99	rdp99.2	npi	nprp	9902		6,900	11/1/99					
d2	6/30/99	rdp99.2	npi	nprp	9901		6,900	11/1/99					
d2	12/1/98	rdp98.4	npi	nprp	9815		24,600	12/1/98					
d2	12/1/98	rdp98.4	npi	nprp	9814		24,600	12/1/98					
d2	12/1/98	rdp98.4	npi	nprp	9813		24,600	12/1/98					
d2	12/1/98	rdp98.4	npi	nprp	9812		25,000	12/1/98					
d2	12/1/98	rdp98.4	npi	nprp	9811		24,800	12/1/98					
d2	12/1/98	rdp98.4	npi	nprp	9810		24,600	12/1/98					
d2	12/1/98	rdp98.4	npi	nprp	9809		24,700	12/1/98					
d2	12/1/98	rdp98.4	npi	nprp	9808		25,000	12/1/98					
d2	12/1/98	rdp98.4	npi	nprp	9806		24,100	12/1/98					
d2	12/1/98	rdp98.4	npi	nprp	9805		24,400	12/1/98					
d2	12/1/98	rdp98.4	npi	nprp	9804		24,400	12/1/98					
d2	12/1/98	rdp98.4	npi	nprp	9803		24,700	12/1/98					
d2	12/31/97	orig	npi	nprp	9660		12,009	12/31/97					
d2	12/31/97	orig	npi	nprp	9659		12,091	12/31/97					
d2	12/31/97	orig	npi	nprp	9657		13,877	12/31/97					
d2	12/31/97	orig	npi	nprp	9656		13,758	12/31/97					
d2	12/31/97	orig	npi	nprp	9655		12,797	12/31/97					
d2	12/31/97	orig	npi	nprp	9551		19,932	12/31/97					
d2	12/31/97	orig	npi	nprp	9550		21,324	12/31/97					
d2	4/27/00	pl	npi	nprp	8525		1,863	5/1/93					
d2	6/30/99	rdp99.4	npi	nprp	986		15,700	11/1/99					
d2	6/30/99	rdp99.4	npi	nprp	981		24,200	11/1/99					
d2	12/31/97	orig	npi	nprp	979		26,995	12/31/97					
d2	12/31/97	orig	npi	nprp	978		21,563	12/31/97					
pl	11/13/01	d1	npi	nprp	8913R		1,700	2/1/96					
pl	11/13/01	d1	npi	nprp	8911R		1,800	2/1/96					
pl	11/13/01	d1	npi	nprp	84203A		4,300	2/1/96					
pl	11/8/01	d2	npi	nprp	0183		27,700	6/1/01	1/1/02	d2			
d2	1/1/02	pl	npi	nprp	0183		27,700	6/1/01					

irradinv02
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Telephone Feedstock

irrad	recdate	recfrom	manuf	model	serialno	slugno	ci	cidate	shipdate	shipto	shiptoname	split	tto
pl	11/8/01	d2	npi	nprp	0177		14,670	4/1/01					
pl	11/8/01	d2	npi	nprp	0176		15,310	4/1/01	1/1/02	split	0176split		
pl	1/1/02	0176split	arg	rodlets	rodlets-7 to T1533		6,699	4/1/01	3/8/02	3968	misreicordia de santos	T1533	
pl	1/1/02	0176split	arg	rodlets	rodlets-9 leftover		8,611	4/1/01					
pl	11/8/01	d2	npi	nprp	0174		14,670	4/1/01					
pl	11/8/01	d2	npi	nprp	200027		17,500	11/1/99					
pl	11/8/01	d2	npi	nprp	200023		18,300	11/1/99	1/1/02	split	200023split		
pl	1/1/02	200023spli	arg	rodlets	rodlets-8 to T1534		4,240	11/1/99				T1534	
pl	1/1/02	200023spli	arg	rodlets	rodlets-7 to T1535		3,710	11/1/99	3/26/02	3699	univ of georgia	T1535	
pl	1/1/02	200023spli	arg	rodlets	rodlets-31 leftover		10,270	11/1/99					
pl	11/13/01	d1	npi	nprp	93156		1,600	2/1/96					
pl	11/13/01	d1	npi	nprp	93155		1,600	2/1/96					
pl	11/13/01	d1	npi	nprp	93143		1,800	2/1/96					
pl	11/13/01	d1	npi	nprp	93142		1,600	2/1/96					
pl	12/31/97	orig	npi	nprp	93125		5,980	5/1/93					
pl	12/31/97	orig	npi	nprp	93124		5,860	5/1/93					
pl	12/31/97	orig	npi	nprp	93122		5,810	5/1/93					
pl	12/31/97	orig	npi	nprp	93121		5,950	5/1/93					
pl	12/31/97	orig	npi	nprp	93120		5,840	5/1/93					
pl	11/13/01	d1	npi	nprp	91327		4,000	2/1/96					
pl	11/13/01	d1	npi	nprp	91325		5,400	2/1/96					
pl	12/15/99	d1	npi	nprp	91324		4,000	2/1/96					
pl	12/15/99	d1	npi	nprp	91323		4,300	2/1/96					
pl	12/15/99	d1	npi	nprp	91318		3,700	2/1/96					
pl	11/30/98	d1	npi	nprp	91314		3,906	5/1/93					
pl	12/15/99	d1	npi	nprp	91312		3,700	2/1/96					
pl	11/30/98	d1	npi	nprp	89030		3,845	5/1/93					
pl	11/30/98	d1	npi	nprp	89028		3,816	5/1/93					
pl	11/30/98	d1	npi	nprp	89025		3,643	5/1/93					
pl	11/13/01	d1	npi	nprp	89010		5,900	2/1/96					
pl	11/1/99	d2	npi	nprp	87025		4,433	12/31/97					
pl	11/1/99	d2	npi	nprp	87006		3,985	12/31/97					
pl	11/13/01	d1	npi	nprp	85191		4,800	2/1/96					
pl	4/3/00	d2	npi	nprp	85190		4,241	12/31/97					
pl	4/3/00	d2	npi	nprp	84204		3,637	12/31/97					
pl	11/13/01	d1	npi	nprp	84202		4,400	2/1/96					
pl	12/15/99	d1	npi	nprp	83346		1,300	2/1/96					
pl	12/31/97	orig	npi	nprp	83343		800	2/1/96					
pl	11/13/01	d1	npi	nprp	83342		1,400	2/1/96					

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NEUTRON PRODUCTS, INC.
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irrad	recdate	recfrom	manuf	model	serialno	slugno	ci	cidate	shipdate	shipto	shiptoname	split	tto
pl	12/31/97	orig	npi	nprp	83341		1,100	2/1/96					
pl	11/13/01	d1	npi	nprp	83338		1,400	2/1/96					
pl	12/31/97	orig	npi	nprp	83336		1,000	2/1/96					
pl	12/31/97	orig	npi	nprp	83324		900	2/1/96					
pl	12/31/97	orig	npi	nprp	83323		700	2/1/96					
pl	12/31/97	orig	npi	nprp	83321		900	2/1/96					
pl	12/15/99	d1	npi	nprp	83320		1,200	2/1/96					
pl	12/15/99	d1	npi	nprp	83319		1,200	2/1/96					
pl	11/13/01	d1	npi	nprp	83318		1,400	2/1/96					
pl	12/31/97	orig	npi	nprp	83317		1,100	2/1/96					
pl	12/15/99	d1	npi	nprp	83316		1,100	2/1/96					
pl	12/31/97	orig	npi	nprp	83315		1,100	2/1/96					
pl	11/13/01	d1	npi	nprp	83314		1,400	2/1/96					
pl	12/15/99	d1	npi	nprp	83313		1,200	2/1/96					
pl	12/15/99	d1	npi	nprp	83312		1,100	2/1/96					
pl	12/31/97	orig	npi	nprp	83311		1,100	2/1/96					
pl	12/15/99	d1	npi	nprp	83310		1,300	2/1/96					
pl	12/31/97	orig	npi	nprp	83309		1,100	2/1/96					
pl	12/31/97	orig	npi	nprp	83308		1,000	2/1/96					
pl	12/15/99	d1	npi	nprp	83307		1,200	2/1/96					
pl	12/15/99	d1	npi	nprp	83306		1,200	2/1/96					
pl	11/13/01	d1	npi	nprp	83305		1,300	2/1/96					
pl	11/13/01	d1	npi	nprp	83304		1,400	2/1/96					
pl	12/15/99	d1	npi	nprp	83303		1,300	2/1/96					
pl	12/31/97	orig	npi	nprp	83302		1,100	2/1/96					
pl	12/15/99	d1	npi	nprp	83301		1,100	2/1/96					
pl	12/15/99	d1	npi	nprp	83148		1,200	2/1/96					
pl	12/31/97	orig	npi	nprp	79290		1,571	5/1/93					
pl	12/31/97	orig	npi	nprp	79287		1,489	5/1/93					
pl	12/31/97	orig	npi	nprp	79285		1,475	5/1/93					
pl	12/31/97	orig	npi	nprp	79279		1,653	5/1/93					
pl	12/31/97	orig	npi	nprp	79278		1,642	5/1/93					
pl	12/31/97	orig	npi	nprp	79275		1,578	5/1/93					
pl	12/31/97	orig	npi	nprp	79273		1,479	5/1/93					
pl	12/31/97	orig	npi	nprp	79270		1,664	5/1/93					
pl	12/31/97	orig	npi	nprp	79266		1,489	5/1/93					
pl	12/15/99	d1	npi	nprp	79264		1,200	2/1/96					
pl	11/13/01	d1	npi	nprp	79263		1,400	2/1/96					
pl	11/13/01	d1	npi	nprp	79260		1,300	2/1/96					

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irrad	recdate	recfrom	manuf	model	serialno	slugno	ci	cidate	shipdate	shipto	shiptoname	split	tto
pl	12/15/99	d1	npi	nprp	79259		1,300	2/1/96					
pl	12/31/97	orig	npi	nprp	79258		1,578	5/1/93					
pl	12/15/99	d1	npi	nprp	79257		1,200	2/1/96					
pl	12/31/97	orig	npi	nprp	79256		1,539	5/1/93					
pl	12/31/97	orig	npi	nprp	79255		1,485	5/1/93					
pl	12/31/97	orig	npi	nprp	79254		1,628	5/1/93					
pl	12/15/99	d1	npi	nprp	79253		1,200	2/1/96					
pl	12/15/99	d1	npi	nprp	79252		1,300	2/1/96					
pl	12/31/97	orig	npi	nprp	79246		1,553	5/1/93					
pl	12/31/97	orig	npi	nprp	79244		1,478	5/1/93					
pl	12/31/97	orig	npi	nprp	79235		1,339	5/1/93					
pl	12/31/97	orig	npi	nprp	79216		1,649	5/1/93					
pl	12/31/97	orig	npi	nprp	79143		700	2/1/96					
pl	12/31/97	orig	npi	nprp	79136		700	2/1/96					
pl	12/31/97	orig	npi	nprp	79132		800	2/1/96					
pl	4/27/00	d2	npi	nprp	9801		25,600	12/1/98					
pl	11/13/01	d1	npi	nprp	8914		1,400	2/1/96					
pl	12/15/99	d1	npi	nprp	8912		1,500	2/1/96					
pl	12/15/99	d1	npi	nprp	8536		1,400	2/1/96					
pl	12/31/97	orig	npi	nprp	8535		700	2/1/96					
pl	11/30/98	d1	npi	nprp	8534		1,606	5/1/93					
pl	11/13/01	d1	npi	nprp	8532		1,800	2/1/96					
pl	11/30/98	d1	npi	nprp	8530		1,776	5/1/93					
pl	12/15/99	d1	npi	nprp	8528		1,300	2/1/96					
pl	11/30/98	d1	npi	nprp	8526		1,586	5/1/93					
pl	11/30/98	d1	npi	nprp	8524		1,758	5/1/93					
pl	12/15/99	d1	npi	nprp	8523		1,500	2/1/96					
pl	12/31/97	orig	npi	nprp	8522		1,100	2/1/96					
pl	11/30/98	d1	npi	nprp	8521		1,573	5/1/93					
pl	12/31/97	orig	npi	nprp	3		600	2/1/96					
pl	12/31/97	orig	npi	nprp	2		600	2/1/96					
pl	12/31/97	orig	npi	nprp	1		600	2/1/96					
					18267750.1	-	2,545,424	########	298,374	14,585	-	-	-

serialno	beg 1/1/02 d2 12/31/01 cicalcbegd2	beg 1/1/02 d1 12/31/01 calcbegd1	beg 1/1/02 pl 12/31/01 cicalcbegpl	end d2 12/31/02 cicalcendd2	end d1 12/31/02 icalcendd1	end pl 12/31/02 cicalcendpl	d2 countd2	d1 countd1	pl countpool
973	-	11,179	-	-	9,802	-	0	1	0
972	-	10,387	-	-	9,108	-	0	1	0
9666	-	8,508	-	-	7,460	-	0	1	0
92401	-	11,179	-	-	9,802	-	0	1	0
923	-	8,804	-	-	7,720	-	0	1	0
0191	-	3,957	-	-	3,470	-	0	1	0
0190	-	4,155	-	-	3,643	-	0	1	0
0189	-	3,166	-	-	2,776	-	0	1	0
0188	-	2,671	-	-	2,342	-	0	1	0
0187	-	2,671	-	-	2,342	-	0	1	0
0186	-	2,968	-	-	2,602	-	0	1	0
0185	-	4,452	-	-	3,904	-	0	1	0
0184	-	4,155	-	-	3,643	-	0	1	0
01114	-	1,583	-	-	1,388	-	0	1	0
01113	-	1,583	-	-	1,388	-	0	1	0
01112	-	1,583	-	-	1,388	-	0	1	0
01111	-	1,682	-	-	1,475	-	0	1	0
01110	-	1,484	-	-	1,301	-	0	1	0
01109	-	1,286	-	-	1,128	-	0	1	0
01108	-	1,583	-	-	1,388	-	0	1	0
01107	-	1,583	-	-	1,388	-	0	1	0
01106	-	1,682	-	-	1,475	-	0	1	0
01105	-	1,484	-	-	1,301	-	0	1	0
01104	-	1,484	-	-	1,301	-	0	1	0
01103	-	1,484	-	-	1,301	-	0	1	0
01102	-	1,484	-	-	1,301	-	0	1	0
01101	-	1,484	-	-	1,301	-	0	1	0
0031	-	11,475	-	-	10,062	-	0	1	0
94001	-	8,234	-	-	7,220	-	0	1	0
93302	-	3,125	-	-	2,740	-	0	1	0
93195	-	7,401	-	-	6,489	-	0	1	0
93193.1	-	3,630	-	-	3,183	-	0	1	0
93193	-	7,401	-	-	6,489	-	0	1	0
93158	-	1,103	-	-	967	-	0	1	0
93157	-	919	-	-	806	-	0	1	0
93154	-	1,103	-	-	967	-	0	1	0
93153	-	1,149	-	-	1,007	-	0	1	0
93152	-	1,103	-	-	967	-	0	1	0
93150	-	1,470	-	-	1,289	-	0	1	0

serialno	beg 1/1/02 d2 12/31/01 cicalcbegd2	beg 1/1/02 d1 12/31/01 calcbegd1	beg 1/1/02 pl 12/31/01 cicalcbegpl	end d2 12/31/02 cicalcendd2	end d1 12/31/02 icalcendd1	end pl 12/31/02 cicalcendpl	d2 countd2	d1 countd1	pl countpool
93149	-	1,424	-	-	1,249	-	0	1	0
93148	-	1,424	-	-	1,249	-	0	1	0
93147	-	1,379	-	-	1,209	-	0	1	0
93146	-	1,287	-	-	1,128	-	0	1	0
93145	-	1,287	-	-	1,128	-	0	1	0
93144	-	1,149	-	-	1,007	-	0	1	0
93141	-	781	-	-	685	-	0	1	0
93140	-	827	-	-	725	-	0	1	0
93136	-	1,103	-	-	967	-	0	1	0
93135	-	1,103	-	-	967	-	0	1	0
93134	-	1,103	-	-	967	-	0	1	0
93133	-	1,149	-	-	1,007	-	0	1	0
93132	-	1,149	-	-	1,007	-	0	1	0
93131	-	1,149	-	-	1,007	-	0	1	0
93130	-	1,195	-	-	1,048	-	0	1	0
93128	-	1,149	-	-	1,007	-	0	1	0
93127	-	1,149	-	-	1,007	-	0	1	0
93126	-	1,149	-	-	1,007	-	0	1	0
93125	-	1,103	-	-	967	-	0	1	0
92402	-	3,492	-	-	3,062	-	0	1	0
91326	-	2,665	-	-	2,337	-	0	1	0
91322	-	2,711	-	-	2,377	-	0	1	0
90304	-	6,334	-	-	5,554	-	0	1	0
89015	-	6,801	-	-	5,963	-	0	1	0
89009	-	4,136	-	-	3,626	-	0	1	0
89007	-	4,136	-	-	3,626	-	0	1	0
89005	-	4,319	-	-	3,788	-	0	1	0
87039	-	4,090	-	-	3,586	-	0	1	0
87038	-	4,182	-	-	3,667	-	0	1	0
87037	-	3,998	-	-	3,505	-	0	1	0
87036	-	4,090	-	-	3,586	-	0	1	0
87033	-	4,136	-	-	3,626	-	0	1	0
87032	-	4,136	-	-	3,626	-	0	1	0
87031	-	4,227	-	-	3,707	-	0	1	0
87030	-	4,044	-	-	3,546	-	0	1	0
85149	-	689	-	-	604	-	0	1	0
85004	-	3,768	-	-	3,304	-	0	1	0
85003	-	4,136	-	-	3,626	-	0	1	0
85002	-	4,227	-	-	3,707	-	0	1	0

serialno	beg 1/1/02 d2 12/31/01 cicalcbegd2	beg 1/1/02 d1 12/31/01 calcbegd1	beg 1/1/02 pl 12/31/01 cicalcbegpl	end d2 12/31/02 cicalcendd2	end d1 12/31/02 icalcendd1	end pl 12/31/02 cicalcendpl	d2 countd2	d1 countd1	pl countpool
85001	-	4,319	-	-	3,788	-	0	1	0
83347	-	505	-	-	443	-	0	1	0
83345	-	643	-	-	564	-	0	1	0
83344	-	689	-	-	604	-	0	1	0
83114	-	933	-	-	818	-	0	1	0
83113	-	933	-	-	818	-	0	1	0
83112	-	1,000	-	-	877	-	0	1	0
83111	-	1,000	-	-	877	-	0	1	0
83110	-	1,000	-	-	877	-	0	1	0
83109	-	1,000	-	-	877	-	0	1	0
83108	-	1,000	-	-	877	-	0	1	0
83107	-	1,000	-	-	877	-	0	1	0
83106	-	1,000	-	-	877	-	0	1	0
83105	-	1,000	-	-	877	-	0	1	0
83104	-	1,000	-	-	877	-	0	1	0
83103	-	1,000	-	-	877	-	0	1	0
83102	-	1,000	-	-	877	-	0	1	0
83101	-	1,000	-	-	877	-	0	1	0
9969	-	2,205	-	-	1,934	-	0	1	0
9968	-	2,129	-	-	1,867	-	0	1	0
9967	-	2,205	-	-	1,934	-	0	1	0
9966	-	2,509	-	-	2,200	-	0	1	0
9965	-	2,205	-	-	1,934	-	0	1	0
9952	-	1,673	-	-	1,467	-	0	1	0
9951	-	1,597	-	-	1,400	-	0	1	0
9950	-	1,673	-	-	1,467	-	0	1	0
9949	-	1,597	-	-	1,400	-	0	1	0
9948	-	1,445	-	-	1,267	-	0	1	0
9947	-	1,445	-	-	1,267	-	0	1	0
9946	-	1,825	-	-	1,600	-	0	1	0
9945	-	1,597	-	-	1,400	-	0	1	0
9944	-	1,673	-	-	1,467	-	0	1	0
9943	-	1,445	-	-	1,267	-	0	1	0
9942	-	1,901	-	-	1,667	-	0	1	0
9941	-	1,673	-	-	1,467	-	0	1	0
9876	-	4,200	-	-	3,683	-	0	1	0
9875	-	4,067	-	-	3,566	-	0	1	0
9874	-	4,067	-	-	3,566	-	0	1	0
9873	-	4,067	-	-	3,566	-	0	1	0

serialno	beg 1/1/02 d2 12/31/01 cicalcbegd2	beg 1/1/02 d1 12/31/01 calcbegd1	beg 1/1/02 pl 12/31/01 cicalcbegpl	end d2 12/31/02 cicalcendd2	end d1 12/31/02 icalcendd1	end pl 12/31/02 cicalcendpl	d2 countd2	d1 countd1	pl countpool
9872	-	4,534	-	-	3,976	-	0	1	0
9871	-	4,534	-	-	3,976	-	0	1	0
9672	-	3,125	-	-	2,740	-	0	1	0
9671	-	3,125	-	-	2,740	-	0	1	0
9670	-	2,987	-	-	2,619	-	0	1	0
9669	-	2,619	-	-	2,297	-	0	1	0
9668	-	2,389	-	-	2,095	-	0	1	0
9667	-	2,849	-	-	2,498	-	0	1	0
9665	-	7,067	-	-	6,197	-	0	1	0
9664	-	6,667	-	-	5,846	-	0	1	0
9663	-	6,934	-	-	6,080	-	0	1	0
9662	-	6,867	-	-	6,022	-	0	1	0
9658	-	8,716	-	-	7,642	-	0	1	0
9654	-	8,245	-	-	7,229	-	0	1	0
9653	-	8,142	-	-	7,139	-	0	1	0
9320	-	3,906	-	-	3,425	-	0	1	0
9318	-	3,492	-	-	3,062	-	0	1	0
8538	-	827	-	-	725	-	0	1	0
8537	-	873	-	-	766	-	0	1	0
0182	17,598	-	-	-	-	-	0	0	0
0182split	-	-	-	-	-	434	0	0	1
0182split	-	-	-	-	-	2,222	0	0	1
0182split	-	-	-	-	-	2,923	0	0	1
0182split	-	-	-	-	-	1,834	0	0	1
0182split	-	-	-	-	-	2,222	0	0	1
0182split	-	-	-	-	-	1,801	0	0	1
0182split	-	-	-	-	-	1,801	0	0	1
0182split	-	-	-	-	-	-	0	0	0
0182split	-	-	-	-	-	2,107	0	0	1
0182split	-	-	-	-	-	2,069	0	0	1
0182split	-	-	-	-	-	2,014	0	0	1
0182split	-	-	-	-	-	-	0	0	0
0182split	-	-	-	-	-	2,036	0	0	1
0181	28,897	-	-	25,339	-	-	1	0	0
0180	32,084	-	-	28,133	-	-	1	0	0
0178	13,872	-	-	12,164	-	-	1	0	0
0175	13,564	-	-	11,894	-	-	1	0	0
0171	14,452	-	-	12,672	-	-	1	0	0
0138	20,191	-	-	17,705	-	-	1	0	0

serialno	beg 1/1/02 d2 12/31/01 cicalcbegd2	beg 1/1/02 d1 12/31/01 calcbegd1	beg 1/1/02 pl 12/31/01 cicalcbegpl	end d2 12/31/02 cicalcendd2	end d1 12/31/02 icalcendd1	end pl 12/31/02 cicalcendpl	d2 countd2	d1 countd1	pl countpool
0137	20,006	-	-	17,542	-	-	1	0	0
0136	20,469	-	-	17,948	-	-	1	0	0
0135	20,006	-	-	17,542	-	-	1	0	0
0134	20,283	-	-	17,786	-	-	1	0	0
0133	19,728	-	-	17,299	-	-	1	0	0
0132	19,728	-	-	17,299	-	-	1	0	0
0131	19,635	-	-	17,217	-	-	1	0	0
200030	21,814	-	-	19,128	-	-	1	0	0
200029	21,814	-	-	19,128	-	-	1	0	0
200028	21,814	-	-	19,128	-	-	1	0	0
200026	13,088	-	-	11,477	-	-	1	0	0
200025	13,840	-	-	12,136	-	-	1	0	0
200024	13,991	-	-	12,268	-	-	1	0	0
200022	13,690	-	-	12,004	-	-	1	0	0
200021	13,615	-	-	11,938	-	-	1	0	0
200020	16,022	-	-	14,049	-	-	1	0	0
200019	24,822	-	-	21,766	-	-	1	0	0
200018	24,672	-	-	21,634	-	-	1	0	0
94102	9,663	-	-	8,473	-	-	1	0	0
93197	7,167	-	-	6,285	-	-	1	0	0
93196	7,287	-	-	6,389	-	-	1	0	0
93194	7,189	-	-	6,304	-	-	1	0	0
93192	7,249	-	-	6,356	-	-	1	0	0
93191	7,579	-	-	6,646	-	-	1	0	0
93190	8,120	-	-	7,120	-	-	1	0	0
92002	8,645	-	-	7,581	-	-	1	0	0
92001	11,828	-	-	10,372	-	-	1	0	0
90305	5,289	-	-	4,638	-	-	1	0	0
90303	7,471	-	-	6,551	-	-	1	0	0
90301	8,488	-	-	7,443	-	-	1	0	0
89016	5,110	-	-	4,481	-	-	1	0	0
89004	5,782	-	-	5,070	-	-	1	0	0
89003	5,392	-	-	4,728	-	-	1	0	0
89002	5,939	-	-	5,207	-	-	1	0	0
89001	6,263	-	-	5,492	-	-	1	0	0
87013	2,815	-	-	2,468	-	-	1	0	0
87005	1,981	-	-	1,737	-	-	1	0	0
85192	3,925	-	-	3,441	-	-	1	0	0
9934	20,685	-	-	18,138	-	-	1	0	0

serialno	beg 1/1/02 d2 12/31/01 cicalcbegd2	beg 1/1/02 d1 12/31/01 calcbegd1	beg 1/1/02 pl 12/31/01 cicalcbegpl	end d2 12/31/02 cicalcendd2	end d1 12/31/02 icalcendd1	end pl 12/31/02 cicalcendpl	d2 countd2	d1 countd1	pl countpool
9933	20,685	-	-	18,138	-	-	1	0	0
9932	21,814	-	-	19,128	-	-	1	0	0
9931	21,061	-	-	18,468	-	-	1	0	0
9908	5,641	-	-	4,947	-	-	1	0	0
9907	5,341	-	-	4,683	-	-	1	0	0
9906	5,416	-	-	4,749	-	-	1	0	0
9905	5,566	-	-	4,881	-	-	1	0	0
9904	5,040	-	-	4,419	-	-	1	0	0
9902	5,190	-	-	4,551	-	-	1	0	0
9901	5,190	-	-	4,551	-	-	1	0	0
9815	16,402	-	-	14,382	-	-	1	0	0
9814	16,402	-	-	14,382	-	-	1	0	0
9813	16,402	-	-	14,382	-	-	1	0	0
9812	16,668	-	-	14,616	-	-	1	0	0
9811	16,535	-	-	14,499	-	-	1	0	0
9810	16,402	-	-	14,382	-	-	1	0	0
9809	16,468	-	-	14,441	-	-	1	0	0
9808	16,668	-	-	14,616	-	-	1	0	0
9806	16,068	-	-	14,090	-	-	1	0	0
9805	16,268	-	-	14,265	-	-	1	0	0
9804	16,268	-	-	14,265	-	-	1	0	0
9803	16,468	-	-	14,441	-	-	1	0	0
9660	7,097	-	-	6,223	-	-	1	0	0
9659	7,146	-	-	6,266	-	-	1	0	0
9657	8,201	-	-	7,192	-	-	1	0	0
9656	8,131	-	-	7,130	-	-	1	0	0
9655	7,563	-	-	6,631	-	-	1	0	0
9551	11,780	-	-	10,329	-	-	1	0	0
9550	12,603	-	-	11,051	-	-	1	0	0
8525	596	-	-	523	-	-	1	0	0
986	11,809	-	-	10,355	-	-	1	0	0
981	18,203	-	-	15,962	-	-	1	0	0
979	15,953	-	-	13,989	-	-	1	0	0
978	12,743	-	-	11,174	-	-	1	0	0
8913R	-	-	781	-	-	685	0	0	1
8911R	-	-	827	-	-	725	0	0	1
84203A	-	-	1,976	-	-	1,733	0	0	1
0183	-	-	25,655	-	-	-	0	0	0
0183	-	-	-	22,496	-	-	1	0	0

serialno	beg 1/1/02 d2 12/31/01 cicalcbegd2	beg 1/1/02 d1 12/31/01 calcbegd1	beg 1/1/02 pl 12/31/01 cicalcbegpl	end d2 12/31/02 cicalcendd2	end d1 12/31/02 icalcendd1	end pl 12/31/02 cicalcendpl	d2 countd2	d1 countd1	pl countpool
0177	-	-	13,292	-	-	11,655	0	0	1
0176	-	-	13,872	-	-	-	0	0	0
rodlets-7 to T153	-	-	-	-	-	-	0	0	0
rodlets-9 leftover	-	-	-	-	-	6,841	0	0	1
0174	-	-	13,292	-	-	11,655	0	0	1
200027	-	-	13,163	-	-	11,543	0	0	1
200023	-	-	13,765	-	-	-	0	0	0
rodlets-8 to T153	-	-	-	-	-	2,797	0	0	1
rodlets-7 to T153	-	-	-	-	-	-	0	0	0
rodlets-31 leftove	-	-	-	-	-	6,774	0	0	1
93156	-	-	735	-	-	645	0	0	1
93155	-	-	735	-	-	645	0	0	1
93143	-	-	827	-	-	725	0	0	1
93142	-	-	735	-	-	645	0	0	1
93125	-	-	1,913	-	-	1,677	0	0	1
93124	-	-	1,875	-	-	1,644	0	0	1
93122	-	-	1,859	-	-	1,630	0	0	1
93121	-	-	1,903	-	-	1,669	0	0	1
93120	-	-	1,868	-	-	1,638	0	0	1
91327	-	-	1,838	-	-	1,612	0	0	1
91325	-	-	2,481	-	-	2,176	0	0	1
91324	-	-	1,838	-	-	1,612	0	0	1
91323	-	-	1,976	-	-	1,733	0	0	1
91318	-	-	1,700	-	-	1,491	0	0	1
91314	-	-	1,250	-	-	1,096	0	0	1
91312	-	-	1,700	-	-	1,491	0	0	1
89030	-	-	1,230	-	-	1,079	0	0	1
89028	-	-	1,221	-	-	1,070	0	0	1
89025	-	-	1,165	-	-	1,022	0	0	1
89010	-	-	2,711	-	-	2,377	0	0	1
87025	-	-	2,620	-	-	2,297	0	0	1
87006	-	-	2,355	-	-	2,065	0	0	1
85191	-	-	2,206	-	-	1,934	0	0	1
85190	-	-	2,506	-	-	2,198	0	0	1
84204	-	-	2,149	-	-	1,885	0	0	1
84202	-	-	2,022	-	-	1,773	0	0	1
83346	-	-	597	-	-	524	0	0	1
83343	-	-	368	-	-	322	0	0	1
83342	-	-	643	-	-	564	0	0	1

serialno	beg 1/1/02 d2 12/31/01 cicalcbegd2	beg 1/1/02 d1 12/31/01 calcbegd1	beg 1/1/02 pl 12/31/01 cicalcbegpl	end d2 12/31/02 cicalcendd2	end d1 12/31/02 icalcendd1	end pl 12/31/02 cicalcendpl	d2 countd2	d1 countd1	pl countpool
83341	-	-	505	-	-	443	0	0	1
83338	-	-	643	-	-	564	0	0	1
83336	-	-	460	-	-	403	0	0	1
83324	-	-	414	-	-	363	0	0	1
83323	-	-	322	-	-	282	0	0	1
83321	-	-	414	-	-	363	0	0	1
83320	-	-	551	-	-	484	0	0	1
83319	-	-	551	-	-	484	0	0	1
83318	-	-	643	-	-	564	0	0	1
83317	-	-	505	-	-	443	0	0	1
83316	-	-	505	-	-	443	0	0	1
83315	-	-	505	-	-	443	0	0	1
83314	-	-	643	-	-	564	0	0	1
83313	-	-	551	-	-	484	0	0	1
83312	-	-	505	-	-	443	0	0	1
83311	-	-	505	-	-	443	0	0	1
83310	-	-	597	-	-	524	0	0	1
83309	-	-	505	-	-	443	0	0	1
83308	-	-	460	-	-	403	0	0	1
83307	-	-	551	-	-	484	0	0	1
83306	-	-	551	-	-	484	0	0	1
83305	-	-	597	-	-	524	0	0	1
83304	-	-	643	-	-	564	0	0	1
83303	-	-	597	-	-	524	0	0	1
83302	-	-	505	-	-	443	0	0	1
83301	-	-	505	-	-	443	0	0	1
83148	-	-	551	-	-	484	0	0	1
79290	-	-	503	-	-	441	0	0	1
79287	-	-	476	-	-	418	0	0	1
79285	-	-	472	-	-	414	0	0	1
79279	-	-	529	-	-	464	0	0	1
79278	-	-	525	-	-	461	0	0	1
79275	-	-	505	-	-	443	0	0	1
79273	-	-	473	-	-	415	0	0	1
79270	-	-	532	-	-	467	0	0	1
79266	-	-	476	-	-	418	0	0	1
79264	-	-	551	-	-	484	0	0	1
79263	-	-	643	-	-	564	0	0	1
79260	-	-	597	-	-	524	0	0	1

serialno	beg 1/1/02 d2 12/31/01 cicalcbegd2	beg 1/1/02 d1 12/31/01 calcbegd1	beg 1/1/02 pl 12/31/01 cicalcbegpl	end d2 12/31/02 cicalcendd2	end d1 12/31/02 icalcendd1	end pl 12/31/02 cicalcendpl		d2 countd2	d1 countd1	pl countpool
79259	-	-	597	-	-	524		0	0	1
79258	-	-	505	-	-	443		0	0	1
79257	-	-	551	-	-	484		0	0	1
79256	-	-	492	-	-	432		0	0	1
79255	-	-	475	-	-	417		0	0	1
79254	-	-	521	-	-	457		0	0	1
79253	-	-	551	-	-	484		0	0	1
79252	-	-	597	-	-	524		0	0	1
79246	-	-	497	-	-	436		0	0	1
79244	-	-	473	-	-	415		0	0	1
79235	-	-	428	-	-	376		0	0	1
79216	-	-	528	-	-	463		0	0	1
79143	-	-	322	-	-	282		0	0	1
79136	-	-	322	-	-	282		0	0	1
79132	-	-	368	-	-	322		0	0	1
9801	-	-	17,068	-	-	14,967		0	0	1
8914	-	-	643	-	-	564		0	0	1
8912	-	-	689	-	-	604		0	0	1
8536	-	-	643	-	-	564		0	0	1
8535	-	-	322	-	-	282		0	0	1
8534	-	-	514	-	-	450		0	0	1
8532	-	-	827	-	-	725		0	0	1
8530	-	-	568	-	-	498		0	0	1
8528	-	-	597	-	-	524		0	0	1
8526	-	-	507	-	-	445		0	0	1
8524	-	-	562	-	-	493		0	0	1
8523	-	-	689	-	-	604		0	0	1
8522	-	-	505	-	-	443		0	0	1
8521	-	-	503	-	-	441		0	0	1
3	-	-	276	-	-	242		0	0	1
2	-	-	276	-	-	242		0	0	1
1	-	-	276	-	-	242		0	0	1
18267750.1	1,053,350	405,320	196,919	930,713	355,412	163,817	-	80	136	120

as of 12/31/02

Delayed to 10/3/03 => 146,376

Tetra Tech EM Inc.

1800 John F. Kennedy Blvd., Sixth Floor ◆ Philadelphia, PA 19103 ◆ (215) 972-0444 ◆ FAX (215) 972-0484

August 6, 2003

Ms. Lorie Baker (3HS34)
Site Assessment Manager
U.S. Environmental Protection Agency
1650 Arch Street
Philadelphia, PA 19103-2029

Subject: **Final Trip Report for the Neutron Products, Inc. Site**
EPA Contract No. 68-S3-00-02
Technical Direction Document No. SE3-03-04-004
Document Tracking No. 2068

Dear Ms. Baker:

Tetra Tech EM Inc. (Tetra Tech) is submitting the final Trip Report for the Neutron Products, Inc. site. Please remove the figures and the appendices from the draft trip report and place them into the final trip report.

If you have any questions regarding this final report, please contact me at (518) 356-3793.

Sincerely,

Donna Brown

Alicia G. Shultz
Project Manager

Enclosure (1)

cc: TDD File
Donna Davies, letter only

contains recycled fiber and is recyclable

ORIGINAL

FINAL TRIP REPORT
FOR THE
NEUTRON PRODUCTS, INC. SITE
DICKERSON, MONTGOMERY COUNTY, MARYLAND

Prepared for

U.S. Environmental Protection Agency Region 3
Hazardous Site Cleanup Division
1650 Arch Street
Philadelphia, PA 19103

Prepared by

Tetra Tech EM Inc.
709 Chelsea Parkway
Boothwyn, PA 19061

EPA Contract No. 68-S3-00-02

Technical Direction Document No. SE3-03-04-004
Document Tracking No. 2068

August 6, 2003

Prepared by

Donna Brown for

Alicia Shultz
Project Manager

Approved by

Donna Brown for

William A. Hagel
START Program Manager

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1.0 INTRODUCTION

Under the Eastern Area Superfund Technical Assessment and Response Team (START) Contract No. 68-S3-00-02, Technical Direction Document (TDD) No. SE3-03-04-004, U.S. Environmental Protection Agency (EPA) Region 3 tasked Tetra Tech EM Inc. (Tetra Tech) to conduct sediment sampling of the Little Monocacy River at the Neutron Products, Inc. (NPI), site in Dickerson, Montgomery County, Maryland. The purpose of the sampling event is to determine whether cobalt-60 has migrated from the NPI facility to the Little Monocacy River.

This trip report provides a summary of relevant background information in Section 2.0, outlines site activities in Section 3.0, outlines analytical results in Section 4.0, and includes conclusions and recommendations regarding future actions at the site in Section 5.0. All references cited in this report are listed after the text.

2.0 BACKGROUND

This section describes the site location, presents a description of the site, and summarizes the site's history and previous investigations.

2.1 SITE LOCATION

The NPI site is located on 22301 Mount Ephraim Road in Dickerson, Maryland, as shown in Figure 1. The NPI facility is on the eastern side of Mount Ephraim Road and is bordered on all sides by residential properties and railroad tracks to the south. The Little Monocacy River and its tributaries are located 1,000 and 1,500 feet east and west of the NPI facility, respectively.

2.2 SITE HISTORY

NPI is licensed by the Maryland Department of the Environment (MDE) to use and control radioactive material with up to 2,000,000 curies (Ci) of activity (MDE 2001). Most of NPI's business has been for teletherapy cancer treatment; the facility refurbished and serviced radiation treatment (teletherapy)

1 SITE LOCATION MAP

equipment (MDE 1996). NPI held four licenses: License 01 for manufacturing, supplying, and melting cobalt-60; License 03 for source exchange; and Licenses 04 and 05 for irradiation of manufactured goods (MDE 2001).

2.3 PREVIOUS INVESTIGATIONS

In 2000, the Circuit Court for Montgomery County, Maryland ordered a permanent injunction against NPI for operations under License 01 for the inability to secure financial assurance. NPI was ordered to cease melting cobalt-60 and was not allowed to receive or refabricate additional radioactive material (Circuit Court for Montgomery County 2000). NPI currently operates two pool-type panoramic irradiators loaded with 380,000 and 1,139,100 Ci, respectively, of cobalt-60 for the radiation processing of medical equipment and consumer goods (MDE 2003).

Four areas of concern have been identified at the NPI site: the hot cell, hot waste storage areas, courtyard, and dry pond, as shown in Figure 2. NPI formerly melted cobalt-60 in the hot cell. NPI currently stores cobalt-60 contaminated wastes in the hot waste storage area. The hot cell and hot waste storage area are accessible through garage doors that open to the outside; the doors open onto the courtyard. MDE has determined that cobalt-60 is released to the courtyard when these doors are opened (MDE 1995). Surface water runoff from the courtyard is directed to the dry pond, a retention basin. The dry pond discharges to a culvert adjacent to a railroad on the south side of the NPI site. The culvert directs water to an unnamed tributary of the Little Monocacy River approximately 1,500 feet west of the site. Cobalt-60 contamination has been documented in the dry pond and the culvert (U.S. Geological Survey [USGS] 1995 and MDE 1993). In August 1995, a sediment sample collected from the Little Monocacy River contained 430 picocuries per kilogram (pCi/kg) of cobalt-60 (MDE 1995).

NPI and MDE have thermoluminescent dosimeters (TLD) located 100 feet apart within a 1,000-meter radius of the NPI site. On numerous occasions, the TLDs have measured gamma radiation levels from the NPI site that exceed NPI's license condition of 500 milliRem per year. These high levels have been attributed to cobalt-60 contamination in the dry pond and to excessive quantities of cobalt-60 waste stored in the hot waste storage area (MDE 1995).

2 SITE LAYOUT MAP

3.0 SITE ACTIVITIES

On May, 13 2003, Tetra Tech mobilized to the NPI site and collected sediment samples from Little Monocacy River, a tributary to the Little Monocacy River, and from a broken culvert located adjacent to a railroad track along the southern boundary of the site. No sampling plan was prepared for the sampling activity. Sampling locations were identified by EPA on site during the sampling activity.

3.1 SITE CONDITIONS AND SAMPLING LOCATIONS

On May 13, 2003, the weather was mostly cloudy with an average temperature of 45° F. The sampling team, which consisted of Tetra Tech personnel Alicia Shultz and Nancy McLaughlin, and EPA representative Lorie Baker, conducted a site reconnaissance using a Ludlum Micro Rem gamma survey meter to identify sampling locations. Sampling locations are shown in Figure 3, and sample identifiers and locations are summarized in Table 1. The site reconnaissance began at the Dickerson Train Station located within 200 feet west of the NPI site. The survey meter at the train station measured between 8 and 15 microRems per hour (μRem/hr). The background gamma reading was between 5 and 10 μRem/hr. Background readings were obtained 1,000 feet east and west of NPI along the railroad.

The sampling team followed the railroad tracks from the station approximately 300 feet west of the NPI site to a broken culvert that reportedly receives discharge from NPI's dry pond. A reading of up to 15 μRem/hr was recorded at the culvert. The broken culvert was identified as sampling location Culvert.

From the Dickerson Train Station, the sampling team followed the railroad tracks 2,500 feet west to an unnamed tributary of the Little Monocacy River. At this location, the railroad tracks are located on an earthen embankment with a height of approximately 20 feet. An unnamed tributary to the Little Monocacy River flows through and under the embankment. A pipe emerges from the bottom of the embankment on the south side of the railroad. Water from the pipe flows at a steady rate and discharges into the tributary of the Little Monocacy River. According to MDE, the source of the water in the pipe

3 SAMPLING LOCATION MAP

TABLE 1
LOCATIONS OF SAMPLES

SAMPLE IDENTIFIERS	SAMPLE LOCATION
LM-1	Sediment sample collected from the Little Monocacy River at the point where a railroad bridge crosses the river, approximately 2,000 feet east of the NPI site
LM-2	Sediment sample collected from the Little Monocacy River, approximately 1,000 feet downstream from LM-1
LM-3	Sediment sample collected from the Little Monocacy River, approximately 1,700 feet downstream from LM-1
LM-4	Sediment sample collected from the location where a pipe discharges into an unnamed tributary of the Little Monocacy River, approximately 2,500 feet west of the NPI site
LM-5	Sediment sample collected from an unnamed tributary of the Little Monocacy River where it emerges from a railroad embankment, approximately 2,500 feet west of the NPI facility
LM-6	Sediment sample collected from an unnamed tributary of the Little Monocacy River, approximately 100 feet south of LM-5
LM-7	Duplicate of LM-6
Culvert	Sediment sample collected from a broken culvert adjacent to the railroad

Notes:
NPI Neutron Products, Inc.

is the culvert into which the NPI dry pond discharges. The sampling team identified a sampling location at the point where the pipe discharges into the unnamed tributary, sampling location LM-4.

The unnamed tributary of the Little Monocacy River emerges through a stone-lined tunnel that cuts through the bottom of the embankment. The location where the tributary emerges from the embankment was identified as sampling location LM-5. A third sampling location was identified approximately 100 feet south of sampling location LM-5 and was identified as sampling location LM-6. Duplicate sample LM-7 was collected at this location.

The sampling team returned to the Dickerson Train Station and traveled north on Mount Ephraim Road and east on the Mouth of the Monocacy Road to the Little Monocacy River. Sampling location LM-1 was identified in the Little Monocacy River at the point where a large railroad bridge crosses the Little Monocacy River. Two other sampling locations were identified in the Little Monocacy River approximately 1,000 and 1,700 feet downstream of the railroad bridge, sampling locations LM-2 and LM-3, respectively.

3.2 SAMPLE COLLECTION

Tetra Tech collected a total of eight sediment samples, including one duplicate sample, on May 13, 2003. Figure 3 shows the sampling locations. Table 2 summarizes the Tetra Tech and Contract Laboratory Program (CLP) sample identifiers, matrices, types, collection dates and times, analytical parameters, analytical methods, and sample containers and preservatives used for each sample collected during this sampling event. All samples were analyzed for cobalt-60.

The sampling team surveyed each sampling location using the gamma radiation survey meter. No radiation levels were recorded significantly above background levels at the sampling locations. As Tetra Tech walked from the Dickerson Train Station east towards the NPI site and dry pond, the gamma radiation survey meter recorded 30 μRem/hr approximately 100 feet west of the dry pond.

TABLE 2

SAMPLE SUMMARY

Sample Identifiers		Matrix	Collection Date/Time	Sample Type	Analytical Parameters	Analytical Methods	Containers and Preservatives
Tetra Tech	**CLP**						
LM-1	MC0500	Sediment	05-13-03/1105	Grab	Cobalt-60	Gamma Spectrometry	Four 8-oz, clear wide-mouth jars; ice
LM-2	MC0501	Sediment	05-13-03/1125	Grab	Cobalt-60	Gamma Spectrometry	Four 8-oz, clear wide-mouth jars; ice
LM-3	MC0502	Sediment	05-13-03/1145	Grab	Cobalt-60	Gamma Spectrometry	Four 8-oz, clear wide-mouth jars; ice
LM-4	MC0503	Sediment	05-13-03/1245	Grab	Cobalt-60	Gamma Spectrometry	Four 8-oz, clear wide-mouth jars; ice
LM-5	MC0504	Sediment	05-13-03/1255	Grab	Cobalt-60	Gamma Spectrometry	Four 8-oz, clear wide-mouth jars; ice
LM-6	MC0505	Sediment	05-13-03/1340	Grab	Cobalt-60	Gamma Spectrometry	Four 8-oz, clear wide-mouth jars; ice
LM-7	MC0506	Sediment	05-13-03/1350	Grab	Cobalt-60	Gamma Spectrometry	Four 8-oz, clear wide-mouth jars; ice
Culvert	MC0507	Sediment	05-13-03/1215	Grab	Cobalt-60	Gamma Spectrometry	Four 8-oz, clear wide-mouth jars; ice

Notes:

CLP Contract Laboratory Program
Oz ounces
Tetra Tech Tetra Tech EM Inc.

3.3 SAMPLE DOCUMENTATION AND HANDLING

Sampling activities and qualitative and quantitative observations were documented in the site logbook; copies of Tetra Tech's site logbook notes are provided in Appendix A. Photographic documentation of each sampling location is provided in Appendix B.

All samples were shipped to National Air and Radiation Environmental Laboratory for cobalt-60 analysis under delivery of analytical services (DAS) number R31616 on May 14, 2003. Appendix C provides copies of the traffic report and chain-of-custody record.

4.0 ANALYTICAL RESULTS

Cobalt-60 was not detected in any of the sediment samples collected from the Little Monocacy River or its tributary. Cobalt-60 was detected in sediment sample Culvert, collected from the culvert, at a concentration of 8.75 picocuries per gram (pCi/g) dry weight. The complete analytical data package is included in Appendix D.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The sediment samples collected from the Little Monocacy River and its tributary did not reveal concentrations of cobalt-60. However, Cobalt-60 was detected in sediment sample Culvert, collected from the broken culvert. The dry pond located on the NPI site discharges to the culvert. All surface water runoff from the NPI site flows to the dry pond. The presence of cobalt-60 in sediment sample Culvert indicates that the NPI site is releasing cobalt-60 to the dry pond and the culvert. The concentration of cobalt-60 detected in the sediment sample (8.75 pCi/g) exceeds NPI's licensing condition, which limits contamination in unrestricted areas to 8 pCi/g. Tetra Tech recommends that the analytical data collected during this sampling investigation be used in a Hazard Ranking System (HRS) evaluation of the NPI site.

REFERENCES

Circuit Court for Montgomery County, Maryland. 2000. Order Modifying Permanent Injunction Pending Appeal. Department of the Environment Versus Neutron Products, Inc. Civil No. 199036. December 31.

Maryland Department of the Environment (MDE). 1993. Radioactive Materials Inspection for Neutron Products, Inc. October 18 through 22.

MDE. 1995. Inspection Summary of Neutron Products, Inc. August 29 and 30.

MDE. 1996. Radioactive Materials Inspection for Neutron Products, Inc. August 29 and 30.

MDE. 2001. Radioactive Material License for Neutron Products, Inc. January 31.

MDE. 2003. Memorandum Regarding Neutron Products, Inc. From Alan Jacobson, Health Physicist Supervisor. To Roland Fletcher, Manager Radiological Health Program. April 21.

U.S. Geologic Survey. 7.5-Minute Series Topographic map, Poolesville, Maryland, 1995.

APPENDIX A

SITE LOGBOOK NOTES

(Seven Pages)

APPENDIX B

PHOTOGRAPHIC DOCUMENTATION LOG

(Seven Pages)

APPENDIX C

TRAFFIC REPORT AND CHAIN-OF-CUSTODY RECORD

(Three Sheets)

APPENDIX D

ANALYTICAL DATA PACKAGE

(20 Pages)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
ENVIRONMENTAL SCIENCE CENTER
701 MAPES ROAD
FORT MEADE, MARYLAND 20755-5350

DATE : June 10, 2003

SUBJECT: Region III Data QA Review

FROM : Fredrick Foreman
Region III ESAT RPO (3ES20)

TO : Lorie Baker
Regional Program Manager (3HS34)

Attached are the results of gamma analysis on soil samples collected from Neutron Products site (Case#: R31616) and analyzed by the EPA's National Air and Radiation Environmental Laboratory (NAREL).

If you have any questions regarding this data, please contact John Griggs, Chief, MASB, NAREL at (334)270-3400.

Attachment

cc: Khin Thuang (EPA Region 3)
Alicia Schultz (TTEMI)

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF RADIATION AND INDOOR AIR
National Air and Radiation Environmental Laboratory
540 South Morris Avenue, Montgomery, AL 36115-2601
(334) 270-3400

June 4, 2003

MEMORANDUM

SUBJECT: Radiochemical results for Neutron Products Samples

FROM: John Griggs, Chief
MASB

To: Khin-Cho Thaung, Chemist
Region 3

Attached are the results of gamma analysis on samples collected from Neutron Products in Dickerson, MD. The samples constitute NAREL batch number 0300031.

Radiochemical analyses usually require the subtraction of an instrument background measurement from a gross sample measurement. Both values are positive, but when the sample activity is low, random variations in the two measurements can cause the gross value to be less than the background, resulting in a measured activity less than zero. Although negative activities have no physical significance, they do have statistical significance, as for example in the evaluation of trends or the comparison of two groups of samples.

For all analyses except gamma spectroscopy, it is the policy of NAREL to report results as generated, whether positive, negative, or zero, together with the 2-sigma measurement uncertainty and a sample-specific estimate of the minimum detectable concentration (MDC). The activity, uncertainty, and MDC are given in the same units. The activity and 2-sigma uncertainty for a radionuclide measured by gamma spectroscopy are reported only if the nuclide is detected; so, the results of gamma analyses are never zero or negative. Nuclides that are not detected do not appear in the report, with the exception of Ba-140, Co-60, Cs-137, I-131, K-40, Ra-226, and Ra-228. If one of these seven nuclides is undetected, NAREL reports it as "Not Detected," or "ND," and provides a sample-specific estimate of the MDC.

Specific information concerning all aspects of the radiological analysis of the samples is contained in the batch case narrative of the data package. If you have any questions concerning the analytical results, please contact me at (334)270-3450.

Attachments

cc: Sheri Minnick, Region 3, w/o attachments
Mary Clark, (6601J), w/o attachments
Ed Sensintaffar, NAREL

U.S. ENVIRONMENTAL PROTECTION AGENCY
NATIONAL AIR AND RADIATION ENVIRONMENTAL LABORATORY
GAMMA ANALYSES

REPORT OF SAMPLE DELIVERY GROUP #0300031

Project: NEUTRON PRODUCTS
Analysis Procedure: Gamma Spectrometry
Date Reported: 05/23/2003

SAMPLES

NAREL Sample #	Client Sample ID	Type	Matrix	Date Collected	Date Received
A3.02504A	MC0500, LM-01	SAM	SEDIMENT	05/13/2003	05/15/2003
A3.02505B	MC0501 LM-2	SAM	SEDIMENT	05/13/2003	05/15/2003
A3.02506C	MC0502, LM-3	SAM	SEDIMENT	05/13/2003	05/15/2003
A3.02507D	MC0503, LM-4	SAM	SEDIMENT	05/13/2003	05/15/2003
A3.02508E	MC0504, LM-5	SAM	SEDIMENT	05/13/2003	05/15/2003
A3.02509F	MC0505, LM-6	SAM	SEDIMENT	05/13/2003	05/15/2003
A3.02510Y	MC0506, LM-7	SAM	SEDIMENT	05/13/2003	05/15/2003
A3.02511Z	MC0507, CULVERT	SAM	SEDIMENT	05/13/2003	05/15/2003

EXCEPTIONS

1. Packaging and Shipping - No problems were observed.
2. Documentation - No problems were observed.
3. Sample Preparation - No problems were encountered.
4. Analysis - No problems were encountered.
5. Holding Times - All holding times were met.

QUALITY CONTROL

1. QC samples - All QC analysis results met NAREL acceptance criteria.
2. Instruments - Response and background checks for all instruments used in these analyses met NAREL acceptance criteria.

CERTIFICATION

I certify that this data report complies with the terms and conditions of the Quality Assurance Project Plan, except as noted above. Release of the data contained in this report has been authorized by the Chief of the Monitoring and Analytical Services Branch and the NAREL Quality Assurance Coordinator, or their designees, as verified by the following signatures.

Mary Wisdom 6/4/03

Mary F. Wisdom — Date
Quality Assurance Coordinator

John Griggs 6/4/03

John Griggs, Ph.D. — Date
Chief, Monitoring and Analytical Services Branch

GENERAL INFORMATION

SAMPLE TYPES

BLD	Blind sample
FBK	Field blank
SAM	Normal sample

ANALYSIS QC TYPES

ANA	Normal analysis
DUP	Laboratory duplicate
LCS	Laboratory control sample (blank spike)
MS	Matrix spike
MSD	Matrix spike duplicate
RBK	Reagent blank

QUALITY INDICATORS

RPD	Relative Percent Difference
%R	Percent Recovery
Z	Number of standard deviations by which a QC measurement differs from the expected value

EVALUATION OF QC ANALYSES

A reagent blank result is considered unacceptable if it is more than 3 standard deviations below zero or more than 3 standard deviations above a predetermined upper control limit. For some analyses NAREL has set the upper control limit at zero. For others the control limit is a small positive number.

NAREL evaluates the results of duplicate and spike analyses using "*Z* scores." A *Z* score is the number of standard deviations by which the QC result differs from its ideal value. The score is considered acceptable if its absolute value is not greater than 3.

The *Z* score for a spiked sample is computed by dividing the difference between the measured value and the target value by the combined standard uncertainty of the difference.

The *Z* score for a duplicate analysis is computed by dividing the difference between the two measured values by the combined standard uncertainty of the difference. When the precision of paired MS/MSD analyses is evaluated, the native sample activity is subtracted from each measured value and the net concentrations are then converted to total activities before the *Z* score is computed.

Each standard uncertainty used to compute a *Z* score includes an additional fixed term to represent sources of measurement error other than counting error. This additional term is not used in the evaluation of reagent blanks.

NAREL reports the "relative percent difference," or RPD, between duplicate results and the "percent recovery," or %R, for spiked analyses, but does not use these values for evaluation.

GENERAL INFORMATION (CONTINUED)

GAMMA ANALYSIS

The reporting format lists the gamma emitters in alphabetical order. The activity and 2-sigma uncertainty for radionuclides measured by gamma spectroscopy are reported only if the nuclide is detected. Nuclides that are not detected do not appear in the report, with the exception of Ba-140, Co-60, Cs-137, I-131, K-40, Ra-226 and Ra-228. If one of these seven nuclides is undetected, NAREL reports it as "Not Detected" or "ND", and provides a sample-specific estimate of the MDC.

Due to potential spectral interferences and other possible problems associated with the determination of the activity of certain radionuclides, the activities for Th-234, Pa-234m, Ra-226, Th-231, and U-235 are subject to greater possible uncertainty than other commonly reported radionuclides. It should be noted that this potential uncertainty is not included in the two-sigma counting uncertainty which is reported with each activity. Although in this report we do provide the calculated activities for these radionuclides, we recommend that the results be used only as a qualitative means of indicating the presence of these radionuclides and not as a quantitative measure of their concentration. The results for these nuclides are not used in the evaluation of quality control samples. Furthermore, because of mutual interference between Ra-226 and U-235, NAREL's gamma analysis software tends to overestimate the amounts of these nuclides whenever both are present in a sample. Lower estimates for Ra-226 activities can be obtained from the reported activities of its decay products, Pb-214 and Bi-214, which are likely to be somewhat less than the Ra-226 activity because of the potential escape of radon gas.

NAREL's gamma spectroscopy software corrects activities and MDCs for decay between collection and analysis, but only up to a limit of ten half-lives. So, if the decay time for a sample is more than ten half-lives of a radionuclide, that nuclide will almost always be undetected and the reported MDC will be meaningless. This is usually a problem only for short-lived radionuclides, such as I-131 and Ba-140, when there is a long delay between collection and analysis.

U.S. ENVIRONMENTAL PROTECTION AGENCY
NATIONAL AIR AND RADIATION ENVIRONMENTAL LABORATORY
GAMMA ANALYSES
SDG #0300031

ANALYSIS SUMMARY

Analysis Procedure: NAREL GAM-01
Title: Gamma Spectrometry

NAREL Sample #	QC Type	Preparation Procedure	Date Completed	Prep Batch #	QC Batch #
A3.02504A		N/A	05/20/2003	0007756W	0002871R
A3.02505B		N/A	05/20/2003	0007756W	0002871R
A3.02506C		N/A	05/20/2003	0007756W	0002871R
A3.02507D		N/A	05/20/2003	0007756W	0002871R
A3.02508E		N/A	05/20/2003	0007756W	0002871R
A3.02509F		N/A	05/20/2003	0007756W	0002871R
A3.02510Y		N/A	05/20/2003	0007756W	0002871R
A3.02510Y	DUP	N/A	05/21/2003	0007756W	0002871R
A3.02511Z		N/A	05/20/2003	0007756W	0002871R

* Samples marked with an asterisk are not in this sample delivery group but were analyzed with it for QC purposes.

U.S. ENVIRONMENTAL PROTECTION AGENCY
NATIONAL AIR AND RADIATION ENVIRONMENTAL LABORATORY
GAMMA ANALYSES
SDG #0300031

SAMPLE ANALYSIS REPORT

Sample #:	A3.02504A	QC batch #:	0002871R
Matrix:	SEDIMENT	Prep batch #:	0007756W
Sample type:	SAM	Prep procedure:	N/A
Amount analyzed:	5.330e+02 GDRY	Analysis procedure:	NAREL GAM-01
Dry/wet weight:	N/A	Analyst:	N/A
Ash/dry weight:	N/A	QC type:	ANA

COUNTING INFORMATION

Date and time	Duration (min)	Detector ID	Operator
05/19/2003 15:19	1000.0	GE01	RCL

ANALYTICAL RESULTS

Analyte		Activity	± 2σ Uncertainty	MDC	Unit	Date
Ba140		ND		1.3e-01	PCI/GDRY	05/13/2003
Be7		1.50e-01	9.8e-02		PCI/GDRY	05/13/2003
Bi212		1.02e+00	2.2e-01		PCI/GDRY	05/13/2003
Bi214	*	7.36e-01	5.3e-02		PCI/GDRY	05/13/2003
Co60		ND		5.9e-02	PCI/GDRY	05/13/2003
Cs137		1.82e-02	1.6e-02		PCI/GDRY	05/13/2003
I131		ND		2.6e-02	PCI/GDRY	05/13/2003
K40		1.32e+01	8.5e-01		PCI/GDRY	05/13/2003
Pb210		7.73e-01	1.4e-01		PCI/GDRY	05/13/2003
Pb212		1.00e+00	6.1e-02		PCI/GDRY	05/13/2003
Pb214	*	7.73e-01	5.0e-02		PCI/GDRY	05/13/2003
Ra224		8.57e-01	2.1e-01		PCI/GDRY	05/13/2003
Ra226	*	1.87e+00	2.4e-01		PCI/GDRY	05/13/2003
Ra228		9.58e-01	7.2e-02		PCI/GDRY	05/13/2003
Th234	*	8.00e-01	1.0e-01		PCI/GDRY	05/13/2003
Tl208		3.23e-01	2.5e-02		PCI/GDRY	05/13/2003
U235	*	1.03e-01	1.3e-02		PCI/GDRY	05/13/2003

* An asterisk indicates a result whose value may be significantly over or underestimated.

U.S. ENVIRONMENTAL PROTECTION AGENCY
NATIONAL AIR AND RADIATION ENVIRONMENTAL LABORATORY
GAMMA ANALYSES
SDG #0300031

SAMPLE ANALYSIS REPORT

Sample #:	A3.02505B	QC batch #:	0002871R
Matrix:	SEDIMENT	Prep batch #:	0007756W
Sample type:	SAM	Prep procedure:	N/A
Amount analyzed:	5.780e+02 GDRY	Analysis procedure:	NAREL GAM-01
Dry/wet weight:	N/A	Analyst:	N/A
Ash/dry weight:	N/A	QC type:	ANA

COUNTING INFORMATION

Date and time	Duration (min)	Detector ID	Operator
05/19/2003 15:19	1000.0	GE02	RCL

ANALYTICAL RESULTS

Analyte		Activity	± 2σ Uncertainty	MDC	Unit	Date
Ba140		ND		1.1e-01	PCI/GDRY	05/13/2003
Be7		1.26e-01	1.1e-01		PCI/GDRY	05/13/2003
Bi212		6.11e-01	1.8e-01		PCI/GDRY	05/13/2003
Bi214	*	4.59e-01	4.1e-02		PCI/GDRY	05/13/2003
Co60		ND		3.0e-02	PCI/GDRY	05/13/2003
Cs137		ND		2.6e-02	PCI/GDRY	05/13/2003
I131		ND		3.3e-02	PCI/GDRY	05/13/2003
K40		1.09e+01	7.4e-01		PCI/GDRY	05/13/2003
Pb212		7.23e-01	5.0e-02		PCI/GDRY	05/13/2003
Pb214	*	4.49e-01	3.8e-02		PCI/GDRY	05/13/2003
Ra223		4.33e-02	5.2e-02		PCI/GDRY	05/13/2003
Ra224		3.38e-01	2.9e-01		PCI/GDRY	05/13/2003
Ra226	*	8.03e-01	2.8e-01		PCI/GDRY	05/13/2003
Ra228		6.24e-01	5.5e-02		PCI/GDRY	05/13/2003
Th234	*	2.98e-01	1.7e-01		PCI/GDRY	05/13/2003
Tl208		2.07e-01	2.1e-02		PCI/GDRY	05/13/2003

* An asterisk indicates a result whose value may be significantly over or underestimated.

U.S. ENVIRONMENTAL PROTECTION AGENCY
NATIONAL AIR AND RADIATION ENVIRONMENTAL LABORATORY
GAMMA ANALYSES
SDG #0300031

SAMPLE ANALYSIS REPORT

Sample #:	A3.02506C	QC batch #:	0002871R
Matrix:	SEDIMENT	Prep batch #:	0007756W
Sample type:	SAM	Prep procedure:	N/A
Amount analyzed:	6.080e+02 GDRY	Analysis procedure:	NAREL GAM-01
Dry/wet weight:	N/A	Analyst:	N/A
Ash/dry weight:	N/A	QC type:	ANA

COUNTING INFORMATION

Date and time	Duration (min)	Detector ID	Operator
05/19/2003 15:19	1000.0	GE03	RCL

ANALYTICAL RESULTS

Analyte		Activity	± 2σ Uncertainty	MDC	Unit	Date
Ba140		ND		6.1e-02	PCI/GDRY	05/13/2003
Bi212		5.55e-01	9.5e-02		PCI/GDRY	05/13/2003
Bi214	*	3.63e-01	2.7e-02		PCI/GDRY	05/13/2003
Co60		ND		1.6e-02	PCI/GDRY	05/13/2003
Cs137		1.05e-02	5.4e-03		PCI/GDRY	05/13/2003
I131		ND		2.2e-02	PCI/GDRY	05/13/2003
K40		1.08e+01	6.4e-01		PCI/GDRY	05/13/2003
Pb212		6.30e-01	4.0e-02		PCI/GDRY	05/13/2003
Pb214	*	4.18e-01	2.9e-02		PCI/GDRY	05/13/2003
Ra224		5.89e-01	1.7e-01		PCI/GDRY	05/13/2003
Ra226	*	9.50e-01	1.8e-01		PCI/GDRY	05/13/2003
Ra228		5.79e-01	4.1e-02		PCI/GDRY	05/13/2003
Tl208		1.95e-01	1.5e-02		PCI/GDRY	05/13/2003
U235	*	5.96e-02	1.2e-02		PCI/GDRY	05/13/2003

* An asterisk indicates a result whose value may be significantly over or underestimated.

U.S. ENVIRONMENTAL PROTECTION AGENCY
NATIONAL AIR AND RADIATION ENVIRONMENTAL LABORATORY
GAMMA ANALYSES
SDG #0300031

SAMPLE ANALYSIS REPORT

Sample #:	A3.02507D	QC batch #:	0002871R
Matrix:	SEDIMENT	Prep batch #:	0007756W
Sample type:	SAM	Prep procedure:	N/A
Amount analyzed:	6.160e+02 GDRY	Analysis procedure:	NAREL GAM-01
Dry/wet weight:	N/A	Analyst:	N/A
Ash/dry weight:	N/A	QC type:	ANA

COUNTING INFORMATION

Date and time	Duration (min)	Detector ID	Operator
05/19/2003 15:19	1000.0	GE04	RCL

ANALYTICAL RESULTS

Analyte		Activity	± 2σ Uncertainty	MDC	Unit	Date
Ba140		ND		6.4e-02	PCI/GDRY	05/13/2003
Bi212		5.83e-01	1.0e-01		PCI/GDRY	05/13/2003
Bi214	*	4.13e-01	3.0e-02		PCI/GDRY	05/13/2003
Co60		ND		1.7e-02	PCI/GDRY	05/13/2003
Cs137		2.82e-02	7.4e-03		PCI/GDRY	05/13/2003
I131		ND		2.3e-02	PCI/GDRY	05/13/2003
K40		8.69e+00	5.3e-01		PCI/GDRY	05/13/2003
Pb212		6.83e-01	4.4e-02		PCI/GDRY	05/13/2003
Pb214	*	4.52e-01	3.2e-02		PCI/GDRY	05/13/2003
Ra223		4.77e-02	3.9e-02		PCI/GDRY	05/13/2003
Ra224		3.88e-01	2.2e-01		PCI/GDRY	05/13/2003
Ra226	*	9.61e-01	1.8e-01		PCI/GDRY	05/13/2003
Ra228		6.19e-01	4.4e-02		PCI/GDRY	05/13/2003
Tl208		2.12e-01	1.6e-02		PCI/GDRY	05/13/2003
U235	*	6.01e-02	1.1e-02		PCI/GDRY	05/13/2003

* An asterisk indicates a result whose value may be significantly over or underestimated.

U.S. ENVIRONMENTAL PROTECTION AGENCY
NATIONAL AIR AND RADIATION ENVIRONMENTAL LABORATORY
GAMMA ANALYSES
SDG #0300031

SAMPLE ANALYSIS REPORT

Sample #:	A3.02508E	QC batch #:	0002871R
Matrix:	SEDIMENT	Prep batch #:	0007756W
Sample type:	SAM	Prep procedure:	N/A
Amount analyzed:	6.530e+02 GDRY	Analysis procedure:	NAREL GAM-01
Dry/wet weight:	N/A	Analyst:	N/A
Ash/dry weight:	N/A	QC type:	ANA

COUNTING INFORMATION

Date and time	Duration (min)	Detector ID	Operator
05/19/2003 15:18	1000.0	GE05	RCL

ANALYTICAL RESULTS

Analyte		Activity	± 2σ Uncertainty	MDC	Unit	Date
Ba140		ND		7.7e-02	PCI/GDRY	05/13/2003
Bi212		7.43e-01	1.3e-01		PCI/GDRY	05/13/2003
Bi214	*	5.24e-01	3.8e-02		PCI/GDRY	05/13/2003
Co60		ND		2.0e-02	PCI/GDRY	05/13/2003
Cs137		2.71e-02	8.3e-03		PCI/GDRY	05/13/2003
I131		ND		2.5e-02	PCI/GDRY	05/13/2003
K40		1.43e+01	8.6e-01		PCI/GDRY	05/13/2003
Pb212		8.65e-01	5.5e-02		PCI/GDRY	05/13/2003
Pb214	*	5.40e-01	3.8e-02		PCI/GDRY	05/13/2003
Ra224		6.11e-01	2.3e-01		PCI/GDRY	05/13/2003
Ra226	*	1.25e+00	2.3e-01		PCI/GDRY	05/13/2003
Ra228		8.05e-01	5.6e-02		PCI/GDRY	05/13/2003
Th234	*	4.84e-01	1.9e-01		PCI/GDRY	05/13/2003
Tl208		2.78e-01	2.0e-02		PCI/GDRY	05/13/2003

* An asterisk indicates a result whose value may be significantly over or underestimated.

U.S. ENVIRONMENTAL PROTECTION AGENCY
NATIONAL AIR AND RADIATION ENVIRONMENTAL LABORATORY
GAMMA ANALYSES
SDG #0300031

SAMPLE ANALYSIS REPORT

Sample #:	A3.02509F	QC batch #:	0002871R
Matrix:	SEDIMENT	Prep batch #:	0007756W
Sample type:	SAM	Prep procedure:	N/A
Amount analyzed:	5.840e+02 GDRY	Analysis procedure:	NAREL GAM-01
Dry/wet weight:	N/A	Analyst:	N/A
Ash/dry weight:	N/A	QC type:	ANA

COUNTING INFORMATION

Date and time	Duration (min)	Detector ID	Operator
05/19/2003 15:19	1000.0	GE06	RCL

ANALYTICAL RESULTS

Analyte		Activity	± 2σ Uncertainty	MDC	Unit	Date
Ba140		ND		7.0e-02	PCI/GDRY	05/13/2003
Be7		1.58e-01	6.7e-02		PCI/GDRY	05/13/2003
Bi212		7.53e-01	1.2e-01		PCI/GDRY	05/13/2003
Bi214	*	5.34e-01	3.8e-02		PCI/GDRY	05/13/2003
Co60		ND		1.9e-02	CI/GDRY	05/13/2003
Cs137		3.87e-02	9.4e-03		PCI/GDRY	05/13/2003
I131		ND		2.3e-02	PCI/GDRY	05/13/2003
K40		1.23e+01	7.4e-01		PCI/GDRY	05/13/2003
Pb212		8.17e-01	5.2e-02		PCI/GDRY	05/13/2003
Pb214	*	5.59e-01	3.9e-02		PCI/GDRY	05/13/2003
Ra223		5.42e-02	4.5e-02		PCI/GDRY	05/13/2003
Ra224		5.02e-01	2.4e-01		PCI/GDRY	05/13/2003
Ra226	*	1.31e+00	2.1e-01		PCI/GDRY	05/13/2003
Ra228		7.83e-01	5.5e-02		PCI/GDRY	05/13/2003
Th234	*	9.40e-01	1.8e-01		PCI/GDRY	05/13/2003
Tl208		2.70e-01	2.0e-02		PCI/GDRY	05/13/2003

* An asterisk indicates a result whose value may be significantly over or underestimated.

U.S. ENVIRONMENTAL PROTECTION AGENCY
NATIONAL AIR AND RADIATION ENVIRONMENTAL LABORATORY
GAMMA ANALYSES
SDG #0300031

SAMPLE ANALYSIS REPORT

Sample #:	A3.02510Y	QC batch #:	0002871R
Matrix:	SEDIMENT	Prep batch #:	0007756W
Sample type:	SAM	Prep procedure:	N/A
Amount analyzed:	5.780e+02 GDRY	Analysis procedure:	NAREL GAM-01
Dry/wet weight:	N/A	Analyst:	N/A
Ash/dry weight:	N/A	QC type:	ANA

COUNTING INFORMATION

Date and time	Duration (min)	Detector ID	Operator
05/19/2003 15:19	1000.0	GE07	RCL

ANALYTICAL RESULTS

Analyte		Activity	± 2σ Uncertainty	MDC	Unit	Date
Ba140		ND		8.2e-02	PCI/GDRY	05/13/2003
Be7		8.41e-02	6.0e-02		PCI/GDRY	05/13/2003
Bi212		6.55e-01	1.4e-01		PCI/GDRY	05/13/2003
Bi214	*	5.09e-01	3.9e-02		PCI/GDRY	05/13/2003
Co60		ND		2.0e-02	PCI/GDRY	05/13/2003
Cs137		3.06e-02	9.4e-03		PCI/GDRY	05/13/2003
I131		ND		2.6e-02	PCI/GDRY	05/13/2003
K40		1.23e+01	7.5e-01		PCI/GDRY	05/13/2003
Pb212		7.81e-01	5.1e-02		PCI/GDRY	05/13/2003
Pb214	*	5.38e-01	3.9e-02		PCI/GDRY	05/13/2003
Ra224		5.71e-01	2.8e-01		PCI/GDRY	05/13/2003
Ra226	*	1.11e+00	2.5e-01		PCI/GDRY	05/13/2003
Ra228		7.50e-01	5.5e-02		PCI/GDRY	05/13/2003
Th234	*	1.01e+00	2.4e-01		PCI/GDRY	05/13/2003
Tl208		2.53e-01	2.0e-02		PCI/GDRY	05/13/2003

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U.S. ENVIRONMENTAL PROTECTION AGENCY
NATIONAL AIR AND RADIATION ENVIRONMENTAL LABORATORY
GAMMA ANALYSES
SDG #0300031

SAMPLE ANALYSIS REPORT

Sample #:	A3.02510Y	QC batch #:	0002871R
Matrix:	SEDIMENT	Prep batch #:	0007756W
Sample type:	SAM	Prep procedure:	N/A
Amount analyzed:	5.780e+02 GDRY	Analysis procedure:	NAREL GAM-01
Dry/wet weight:	N/A	Analyst:	N/A
Ash/dry weight:	N/A	QC type:	DUP

COUNTING INFORMATION

Date and time	Duration (min)	Detector ID	Operator
05/20/2003 14:34	1000.0	GE09	RCL

ANALYTICAL RESULTS

Analyte		Activity	± 2σ Uncertainty	MDC	Unit	Date
Ba140		ND		8.7e-02	PCI/GDRY	05/13/2003
Be7		9.40e-02	6.4e-02		PCI/GDRY	05/13/2003
Bi212		8.08e-01	1.4e-01		PCI/GDRY	05/13/2003
Bi214	*	5.24e-01	3.8e-02		PCI/GDRY	05/13/2003
Co60		ND		2.1e-02	PCI/GDRY	05/13/2003
Cs137		2.78e-02	8.3e-03		PCI/GDRY	05/13/2003
I131		ND		2.9e-02	PCI/GDRY	05/13/2003
K40		1.25e+01	7.6e-01		PCI/GDRY	05/13/2003
Pb212		7.97e-01	5.2e-02		PCI/GDRY	05/13/2003
Pb214	*	5.42e-01	3.9e-02		PCI/GDRY	05/13/2003
Ra223		4.53e-02	4.6e-02		PCI/GDRY	05/13/2003
Ra224		5.79e-01	2.6e-01		PCI/GDRY	05/13/2003
Ra226	*	1.08e+00	2.2e-01		PCI/GDRY	05/13/2003
Ra228		7.60e-01	5.5e-02		PCI/GDRY	05/13/2003
Tl208		2.64e-01	2.0e-02		PCI/GDRY	05/13/2003

* An asterisk indicates a result whose value may be significantly over or underestimated.

U.S. ENVIRONMENTAL PROTECTION AGENCY
NATIONAL AIR AND RADIATION ENVIRONMENTAL LABORATORY
GAMMA ANALYSES
SDG #0300031

SAMPLE ANALYSIS REPORT

Sample #:	A3.02511Z	QC batch #:	0002871R
Matrix:	SEDIMENT	Prep batch #:	0007756W
Sample type:	SAM	Prep procedure:	N/A
Amount analyzed:	4.610e+02 GDRY	Analysis procedure:	NAREL GAM-01
Dry/wet weight:	N/A	Analyst:	N/A
Ash/dry weight:	N/A	QC type:	ANA

COUNTING INFORMATION

Date and time	Duration (min)	Detector ID	Operator
05/19/2003 15:19	1000.0	GE08	RCL

ANALYTICAL RESULTS

Analyte		Activity	± 2σ Uncertainty	MDC	Unit	Date
Ba140		ND		2.0e-01	PCI/GDRY	05/13/2003
Bi212		6.99e-01	3.7e-01		PCI/GDRY	05/13/2003
Bi214	*	4.84e-01	4.9e-02		PCI/GDRY	05/13/2003
Co60		8.75e+00	5.0e-01		PCI/GDRY	05/13/2003
Cs137		1.16e-01	2.3e-02		PCI/GDRY	05/13/2003
I131		ND		5.2e-02	PCI/GDRY	05/13/2003
K40		9.08e+00	6.0e-01		PCI/GDRY	05/13/2003
Pb210		1.47e+00	3.9e-01		PCI/GDRY	05/13/2003
Pb212		6.59e-01	5.1e-02		PCI/GDRY	05/13/2003
Pb214	*	5.58e-01	4.8e-02		PCI/GDRY	05/13/2003
Ra224		6.77e-01	4.5e-01		PCI/GDRY	05/13/2003
Ra226	*	1.53e+00	3.6e-01		PCI/GDRY	05/13/2003
Ra228		5.56e-01	8.5e-02		PCI/GDRY	05/13/2003
Th234	*	5.40e-01	1.7e-01		PCI/GDRY	05/13/2003
Tl208		2.21e-01	2.7e-02		PCI/GDRY	05/13/2003

* An asterisk indicates a result whose value may be significantly over or underestimated.

U.S. ENVIRONMENTAL PROTECTION AGENCY
NATIONAL AIR AND RADIATION ENVIRONMENTAL LABORATORY
GAMMA ANALYSES
SDG #0300031

QC BATCH SUMMARY

QC batch #: 0002871R
Preparation procedure: N/A
Analysis procedure: NAREL GAM-01

NAREL Sample #	QC Type	Yield (%)	± 2σ Uncertainty (%)	Analyst
A3.02504A		N/A		N/A
A3.02505B		N/A		N/A
A3.02506C		N/A		N/A
A3.02507D		N/A		N/A
A3.02508E		N/A		N/A
A3.02509F		N/A		N/A
A3.02510Y		N/A		N/A
A3.02510Y	DUP	N/A		N/A
A3.02511Z		N/A		N/A

* Samples marked with an asterisk are not in this sample delivery group but were analyzed with it for QC purposes.

National Air and Radiation Environmental Laboratory
QC Batch Report

QC Batch #: 0002871R Analytical Procedure: NAREL GAM-01

LABORATORY DUPLICATES (PCI/GDRY)

Sample ID	Nuclide	Original ± 2σ	Duplicate ± 2σ	RPD	Z
A3.02510Y	BA140				
A3.02510Y	BE7	8.41e-02 ± 6.0e-02	9.40e-02 ± 6.4e-02	11.12	0.22 OK
A3.02510Y	BI212	6.55e-01 ± 1.4e-01	8.08e-01 ± 1.4e-01	20.92	1.37 OK
A3.02510Y	CO60				
A3.02510Y	CS137	3.06e-02 ± 9.4e-03	2.78e-02 ± 8.3e-03	9.59	-0.42 OK
A3.02510Y	I131				
A3.02510Y	K40	1.23e+01 ± 7.5e-01	1.25e+01 ± 7.6e-01	1.61	0.19 OK
A3.02510Y	PB212	7.81e-01 ± 5.1e-02	7.97e-01 ± 5.2e-02	2.03	0.24 OK
A3.02510Y	RA224	5.71e-01 ± 2.8e-01	5.79e-01 ± 2.6e-01	1.39	0.04 OK
A3.02510Y	RA228	7.50e-01 ± 5.5e-02	7.60e-01 ± 5.5e-02	1.32	0.15 OK
A3.02510Y	TL208	2.53e-01 ± 2.0e-02	2.64e-01 ± 2.0e-02	4.26	0.47 OK

Analyst: Robert C Lowry 5-23-03
Lowry, Robert C.

QA Officer: _____ _____

START/ TTEMI

TTEMI

U.S. EPA Region III Sample Scheduling Request Form

RAS CASE No:		DAS No: R31616	NSF No:
Date: April 23, 2003	Data Validation Level: IM2		EPA Lab Reply:
Site Name: Neutron Products, Inc.			Cost:
Address: 22301 Mount Ephraim Road		City: Dickerson, Montgomery County	State: MD
Latitude:	Longitude:		Anal +Val Data TAT:21 days
Program: Superfund	CERCLIS No: MDN000305785		Activity: SI
Account No: 03T03N50102DA3P1S100	Operable Unit:		Spill ID:
Preparer: Marian Murphy	RPM/PO: Lorie Baker (3HS34)		Site Leader: Alicia Shultz
Phone: 610-364-2129	Phone: 215-814-3356		Phone: 518-356-3793
FAX: 610-485-8587	FAX: 215-814-3254		FAX: 518-356-3793
E-mail: marian.murphy@ttemi.com	E-mail: baker.lorie@epa.gov		E-mail: alicia.shultz@ttemi.com
EPA CO: Deborah Eble	Contract Type: START 3 Eastern Area	Prime: Tetra Tech EM Inc.	Sub:
Lab Assignment Date:	Analytical TAT: 7 days		Ship Date From: 5/13/02
Organic Lab:			Ship Date To: 5/14/03
Inorganic Lab:			Carrier:

SAMPLES	METHOD	PARAMETER	MATRIX
15	EPA/600/4-80-032 901.1	Cobalt 60 by Gamma Spectroscopy 20717	Sediment

NOTE: Data validation levels M3 & IM2 require justification. QC field samples must be included as part of total number of samples.

1. Special Instructions:
2. Objectives / Project Plan ID / Permit ID: Fax results to the EPA Site Assessment Manager (SAM), Lorie Baker , in 7 days to the above fax number.
3. Program / Project / Permit Reporting Limits AS PER METHOD
4. DQO (QC Requirements) AS PER METHOD

U.S. Environmental Protection Agency
Environmental Science Center
Fort Meade, Maryland

DATE: June 6, 2003

From: Khin Thaung
US EPA Environmental Science Center
701 Mapes Road
Fort Meade, Maryland 20755-5350

Office Phone No. (410) 305- 2743

Office FAX No. (410) 305- 3095

To: Lori Baker

Address:

FAX No. 215 814 3254

Phone No.

Number of pages including cover page: 19

Notes:

Neutron Product Analysis
R31616

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF RADIATION AND INDOOR AIR
National Air and Radiation Environmental Laboratory
540 South Morris Avenue, Montgomery, AL 36115-2601
(334) 270-3400

June 4, 2003

MEMORANDUM

SUBJECT: Radiochemical results for Neutron Products Samples

FROM: John Griggs, Chief
MASB

To: Khin-Cho Thaung, Chemist
Region 3

Attached are the results of gamma analysis on samples collected from Neutron Products in Dickerson, MD. The samples constitute NAREL batch number 0300031.

Radiochemical analyses usually require the subtraction of an instrument background measurement from a gross sample measurement. Both values are positive, but when the sample activity is low, random variations in the two measurements can cause the gross value to be less than the background, resulting in a measured activity less than zero. Although negative activities have no physical significance, they do have statistical significance, as for example in the evaluation of trends or the comparison of two groups of samples.

For all analyses except gamma spectroscopy, it is the policy of NAREL to report results as generated, whether positive, negative, or zero, together with the 2-sigma measurement uncertainty and a sample-specific estimate of the minimum detectable concentration (MDC). The activity, uncertainty, and MDC are given in the same units. The activity and 2-sigma uncertainty for a radionuclide measured by gamma spectroscopy are reported only if the nuclide is detected; so, the results of gamma analyses are never zero or negative. Nuclides that are not detected do not appear in the report, with the exception of Ba-140, Co-60, Cs-137, I-131, K-40, Ra-226, and Ra-228. If one of these seven nuclides is undetected, NAREL reports it as "Not Detected," or "ND," and provides a sample-specific estimate of the MDC.

Specific information concerning all aspects of the radiological analysis of the samples is contained in the batch case narrative of the data package. If you have any questions concerning the analytical results, please contact me at (334)270-3450.

Attachments

cc: Sheri Minnick, Region 3, w/o attachments
Mary Clark, (6501J), w/o attachments
Ed Sensintaffar, NAREL

U.S. ENVIRONMENTAL PROTECTION AGENCY
NATIONAL AIR AND RADIATION ENVIRONMENTAL LABORATORY
GAMMA ANALYSES

REPORT OF SAMPLE DELIVERY GROUP #0300031

Project: NEUTRON PRODUCTS
Analysis Procedure: Gamma Spectrometry
Date Reported: 05/23/2003

SAMPLES

NAREL Sample #	Client Sample ID	Type	Matrix	Date Collected	Date Received
A3.02504A	MC0500, LM-01	SAM	SEDIMENT	05/13/2003	05/15/2003
A3.02505B	MC0501 LM-2	SAM	SEDIMENT	05/13/2003	05/15/2003
A3.02506C	MC0502, LM-3	SAM	SEDIMENT	05/13/2003	05/15/2003
A3.02507D	MC0503, LM-4	SAM	SEDIMENT	05/13/2003	05/15/2003
A3.02508E	MC0504, LM-5	SAM	SEDIMENT	05/13/2003	05/15/2003
A3.02509F	MC0505, LM-6	SAM	SEDIMENT	05/13/2003	05/15/2003
A3.02510Y	MC0506, LM-7	SAM	SEDIMENT	05/13/2003	05/15/2003
A3.02511Z	MC0507, CULVERT	SAM	SEDIMENT	05/13/2003	05/15/2003

EXCEPTIONS

1. Packaging and Shipping - No problems were observed.
2. Documentation - No problems were observed.
3. Sample Preparation - No problems were encountered.
4. Analysis - No problems were encountered.
5. Holding Times - All holding times were met.

QUALITY CONTROL

1. QC samples - All QC analysis results met NAREL acceptance criteria.
2. Instruments - Response and background checks for all instruments used in these analyses met NAREL acceptance criteria.

CERTIFICATION

I certify that this data report complies with the terms and conditions of the Quality Assurance Project Plan, except as noted above. Release of the data contained in this report has been authorized by the Chief of the Monitoring and Analytical Services Branch and the NAREL Quality Assurance Coordinator, or their designees, as verified by the following signatures.

Mary Wisdom 6/4/03

Mary F. Wisdom Date
Quality Assurance Coordinator

John Griggs 6/4/03

John Griggs, Ph.D. Date
Chief, Monitoring and Analytical Services Branch

GENERAL INFORMATION

SAMPLE TYPES

BLD	Blind sample
FBK	Field blank
SAM	Normal sample

ANALYSIS QC TYPES

ANA	Normal analysis
DUP	Laboratory duplicate
LCS	Laboratory control sample (blank spike)
MS	Matrix spike
MSD	Matrix spike duplicate
RBK	Reagent blank

QUALITY INDICATORS

RPD	Relative Percent Difference
%R	Percent Recovery
Z	Number of standard deviations by which a QC measurement differs from the expected value

EVALUATION OF QC ANALYSES

A reagent blank result is considered unacceptable if it is more than 3 standard deviations below zero or more than 3 standard deviations above a predetermined upper control limit. For some analyses NAREL has set the upper control limit at zero. For others the control limit is a small positive number.

NAREL evaluates the results of duplicate and spike analyses using "Z scores." A Z score is the number of standard deviations by which the QC result differs from its ideal value. The score is considered acceptable if its absolute value is not greater than 3.

The Z score for a spiked sample is computed by dividing the difference between the measured value and the target value by the combined standard uncertainty of the difference.

The Z score for a duplicate analysis is computed by dividing the difference between the two measured values by the combined standard uncertainty of the difference. When the precision of paired MS/MSD analyses is evaluated, the native sample activity is subtracted from each measured value and the net concentrations are then converted to total activities before the Z score is computed.

Each standard uncertainty used to compute a Z score includes an additional fixed term to represent sources of measurement error other than counting error. This additional term is not used in the evaluation of reagent blanks.

NAREL reports the "relative percent difference," or RPD, between duplicate results and the "percent recovery," or %R, for spiked analyses, but does not use these values for evaluation.

GENERAL INFORMATION (CONTINUED)

GAMMA ANALYSIS

The reporting format lists the gamma emitters in alphabetical order. The activity and 2-sigma uncertainty for radionuclides measured by gamma spectroscopy are reported only if the nuclide is detected. Nuclides that are not detected do not appear in the report, with the exception of Ba-140, Co-60, Cs-137, I-131, K-40, Ra-226 and Ra-228. If one of these seven nuclides is undetected, NAREL reports it as "Not Detected" or "ND", and provides a sample-specific estimate of the MDC.

Due to potential spectral interferences and other possible problems associated with the determination of the activity of certain radionuclides, the activities for Th-234, Pa-234m, Ra-226, Th-231, and U-235 are subject to greater possible uncertainty than other commonly reported radionuclides. It should be noted that this potential uncertainty is not included in the two-sigma counting uncertainty which is reported with each activity. Although in this report we do provide the calculated activities for these radionuclides, we recommend that the results be used only as a qualitative means of indicating the presence of these radionuclides and not as a quantitative measure of their concentration. The results for these nuclides are not used in the evaluation of quality control samples. Furthermore, because of mutual interference between Ra-226 and U-235, NAREL's gamma analysis software tends to overestimate the amounts of these nuclides whenever both are present in a sample. Lower estimates for Ra-226 activities can be obtained from the reported activities of its decay products, Pb-214 and Bi-214, which are likely to be somewhat less than the Ra-226 activity because of the potential escape of radon gas.

NAREL's gamma spectroscopy software corrects activities and MDCs for decay between collection and analysis, but only up to a limit of ten half-lives. So, if the decay time for a sample is more than ten half-lives of a radionuclide, that nuclide will almost always be undetected and the reported MDC will be meaningless. This is usually a problem only for short-lived radionuclides, such as I-131 and Ba-140, when there is a long delay between collection and analysis.

U.S. ENVIRONMENTAL PROTECTION AGENCY
NATIONAL AIR AND RADIATION ENVIRONMENTAL LABORATORY
GAMMA ANALYSES
SDG #0300031

ANALYSIS SUMMARY

Analysis Procedure: NAREL GAM-01
Title: Gamma Spectrometry

NAREL Sample #	QC Type	Preparation Procedure	Date Completed	Prep Batch #	QC Batch #
A3.02504A		N/A	05/20/2003	0007756W	0002871R
A3.02505B		N/A	05/20/2003	0007756W	0002871R
A3.02506C		N/A	05/20/2003	0007756W	0002871R
A3.02507D		N/A	05/20/2003	0007756W	0002871R
A3.02508E		N/A	05/20/2003	0007756W	0002871R
A3.02509F		N/A	05/20/2003	0007756W	0002871R
A3.02510Y		N/A	05/20/2003	0007756W	0002871R
A3.02510Y	DUP	N/A	05/21/2003	0007756W	0002871R
A3.02511Z		N/A	05/20/2003	0007756W	0002871R

* Samples marked with an asterisk are not in this sample delivery group but were analyzed with it for QC purposes.

U.S. ENVIRONMENTAL PROTECTION AGENCY
NATIONAL AIR AND RADIATION ENVIRONMENTAL LABORATORY
GAMMA ANALYSES
SDG #0300031

SAMPLE ANALYSIS REPORT

Sample #:	A3.02504A	QC batch #:	0002871R
Matrix:	SEDIMENT	Prep batch #:	0007756W
Sample type:	SAM	Prep procedure:	N/A
Amount analyzed:	5.330e+02 GDRY	Analysis procedure:	NAREL GAM-01
Dry/wet weight:	N/A	Analyst:	N/A
Ash/dry weight:	N/A	QC type:	ANA

COUNTING INFORMATION

Date and time	Duration (min)	Detector ID	Operator
05/19/2003 15:19	1000.0	GE01	RCL

ANALYTICAL RESULTS

Analyte		Activity	± 2σ Uncertainty	MDC	Unit	Date
Ba140		ND		1.3e-01	PCI/GDRY	05/13/2003
Be7		1.50e-01	9.8e-02		PCI/GDRY	05/13/2003
Bi212		1.02e+00	2.2e-01		PCI/GDRY	05/13/2003
Bi214	*	7.36e-01	5.3e-02		PCI/GDRY	05/13/2003
Co60		ND		5.9e-02	PCI/GDRY	05/13/2003
Cs137		1.82e-02	1.6e-02		PCI/GDRY	05/13/2003
I131		ND		2.6e-02	PCI/GDRY	05/13/2003
K40		1.32e+01	8.5e-01		PCI/GDRY	05/13/2003
Pb210		7.73e-01	1.4e-01		PCI/GDRY	05/13/2003
Pb212		1.00e+00	6.1e-02		PCI/GDRY	05/13/2003
Pb214	*	7.73e-01	5.0e-02		PCI/GDRY	05/13/2003
Ra224		8.57e-01	2.1e-01		PCI/GDRY	05/13/2003
Ra226	*	1.87e+00	2.4e-01		PCI/GDRY	05/13/2003
Ra228		9.58e-01	7.2e-02		PCI/GDRY	05/13/2003
Th234	*	8.00e-01	1.0e-01		PCI/GDRY	05/13/2003
Tl208		3.23e-01	2.5e-02		PCI/GDRY	05/13/2003
U235	*	1.03e-01	1.3e-02		PCI/GDRY	05/13/2003

* An asterisk indicates a result whose value may be significantly over or underestimated.

U.S. ENVIRONMENTAL PROTECTION AGENCY
NATIONAL AIR AND RADIATION ENVIRONMENTAL LABORATORY
GAMMA ANALYSES
SDG #0300031

SAMPLE ANALYSIS REPORT

Sample #:	A3.02505B	QC batch #:	0002871R
Matrix:	SEDIMENT	Prep batch #:	0007756W
Sample type:	SAM	Prep procedure:	N/A
Amount analyzed:	5.780e+02 GDRY	Analysis procedure:	NAREL GAM-01
Dry/wet weight:	N/A	Analyst:	N/A
Ash/dry weight:	N/A	QC type:	ANA

COUNTING INFORMATION

Date and time	Duration (min)	Detector ID	Operator
05/19/2003 15:19	1000.0	GE02	RCL

ANALYTICAL RESULTS

Analyte		Activity	± 2σ Uncertainty	MDC	Unit	Date
Ba140		ND		1.1e-01	PCI/GDRY	05/13/2003
Be7		1.26e-01	1.1e-01		PCI/GDRY	05/13/2003
Bi212		6.11e-01	1.8e-01		PCI/GDRY	05/13/2003
Bi214	*	4.59e-01	4.1e-02		PCI/GDRY	05/13/2003
Co60		ND		3.0e-02	PCI/GDRY	05/13/2003
Cs137		ND		2.6e-02	PCI/GDRY	05/13/2003
I131		ND		3.3e-02	PCI/GDRY	05/13/2003
K40		1.09e+01	7.4e-01		PCI/GDRY	05/13/2003
Pb212		7.23e-01	5.0e-02		PCI/GDRY	05/13/2003
Pb214	*	4.49e-01	3.8e-02		PCI/GDRY	05/13/2003
Ra223		4.33e-02	5.2e-02		PCI/GDRY	05/13/2003
Ra224		3.38e-01	2.9e-01		PCI/GDRY	05/13/2003
Ra226	*	8.03e-01	2.8e-01		PCI/GDRY	05/13/2003
Ra228		6.24e-01	5.5e-02		PCI/GDRY	05/13/2003
Th234	*	2.98e-01	1.7e-01		PCI/GDRY	05/13/2003
Tl208		2.07e-01	2.1e-02		PCI/GDRY	05/13/2003

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GAMMA ANALYSES
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SAMPLE ANALYSIS REPORT

Sample #:	A3.02506C	QC batch #:	0002871R
Matrix:	SEDIMENT	Prep batch #:	0007756W
Sample type:	SAM	Prep procedure:	N/A
Amount analyzed:	6.080e+02 GDRY	Analysis procedure:	NAREL GAM-01
Dry/wet weight:	N/A	Analyst:	N/A
Ash/dry weight:	N/A	QC type:	ANA

COUNTING INFORMATION

Date and time	Duration (min)	Detector ID	Operator
05/19/2003 15:19	1000.0	GE03	RCL

ANALYTICAL RESULTS

Analyte		Activity	± 2σ Uncertainty	MDC	Unit	Date
Ba140		ND		6.1e-02	PCI/GDRY	05/13/2003
Bi212		5.55e-01	9.5e-02		PCI/GDRY	05/13/2003
Bi214	*	3.63e-01	2.7e-02		PCI/GDRY	05/13/2003
Co60		ND		1.6e-02	PCI/GDRY	05/13/2003
Cs137		1.05e-02	5.4e-03		PCI/GDRY	05/13/2003
I131		ND		2.2e-02	PCI/GDRY	05/13/2003
K40		1.08e+01	6.4e-01		PCI/GDRY	05/13/2003
Pb212		6.30e-01	4.0e-02		PCI/GDRY	05/13/2003
Pb214	*	4.18e-01	2.9e-02		PCI/GDRY	05/13/2003
Ra224		5.89e-01	1.7e-01		PCI/GDRY	05/13/2003
Ra226	*	9.50e-01	1.8e-01		PCI/GDRY	05/13/2003
Ra228		5.79e-01	4.1e-02		PCI/GDRY	05/13/2003
Tl208		1.95e-01	1.5e-02		PCI/GDRY	05/13/2003
U235	*	5.96e-02	1.2e-02		PCI/GDRY	05/13/2003

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SAMPLE ANALYSIS REPORT

Sample #:	A3.02507D	QC batch #:	0002871R
Matrix:	SEDIMENT	Prep batch #:	0007756W
Sample type:	SAM	Prep procedure:	N/A
Amount analyzed:	6.160e+02 GDRY	Analysis procedure:	NAREL GAM-01
Dry/wet weight:	N/A	Analyst:	N/A
Ash/dry weight:	N/A	QC type:	ANA

COUNTING INFORMATION

Date and time	Duration (min)	Detector ID	Operator
05/19/2003 15:19	1000.0	GE04	RCL

ANALYTICAL RESULTS

Analyte		Activity	± 2σ Uncertainty	MDC	Unit	Date
Ba140		ND		6.4e-02	PCI/GDRY	05/13/2003
Bi212		5.83e-01	1.0e-01		PCI/GDRY	05/13/2003
Bi214	*	4.13e-01	3.0e-02		PCI/GDRY	05/13/2003
Co60		ND		1.7e-02	PCI/GDRY	05/13/2003
Cs137		2.82e-02	7.4e-03		PCI/GDRY	05/13/2003
I131		ND		2.3e-02	PCI/GDRY	05/13/2003
K40		8.69e+00	5.3e-01		PCI/GDRY	05/13/2003
Pb212		6.83e-01	4.4e-02		PCI/GDRY	05/13/2003
Pb214	*	4.52e-01	3.2e-02		PCI/GDRY	05/13/2003
Ra223		4.77e-02	3.9e-02		PCI/GDRY	05/13/2003
Ra224		3.88e-01	2.2e-01		PCI/GDRY	05/13/2003
Ra226	*	9.61e-01	1.8e-01		PCI/GDRY	05/13/2003
Ra228		6.19e-01	4.4e-02		PCI/GDRY	05/13/2003
Tl208		2.12e-01	1.6e-02		PCI/GDRY	05/13/2003
U235	*	6.01e-02	1.1e-02		PCI/GDRY	05/13/2003

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SAMPLE ANALYSIS REPORT

Sample #:	A3.02508E	QC batch #:	0002871R
Matrix:	SEDIMENT	Prep batch #:	0007756W
Sample type:	SAM	Prep procedure:	N/A
Amount analyzed:	6.530e+02 GDRY	Analysis procedure:	NAREL GAM-01
Dry/wet weight:	N/A	Analyst:	N/A
Ash/dry weight:	N/A	QC type:	ANA

COUNTING INFORMATION

Date and time	Duration (min)	Detector ID	Operator
05/19/2003 15:18	1000.0	GE05	RCL

ANALYTICAL RESULTS

Analyte		Activity	± 2σ Uncertainty	MDC	Unit	Date
Ba140		ND		7.7e-02	PCI/GDRY	05/13/2003
Bi212		7.43e-01	1.3e-01		PCI/GDRY	05/13/2003
Bi214	*	5.24e-01	3.8e-02		PCI/GDRY	05/13/2003
Co60		ND		2.0e-02	PCI/GDRY	05/13/2003
Cs137		2.71e-02	8.3e-03		PCI/GDRY	05/13/2003
I131		ND		2.5e-02	PCI/GDRY	05/13/2003
K40		1.43e+01	8.6e-01		PCI/GDRY	05/13/2003
Pb212		8.65e-01	5.5e-02		PCI/GDRY	05/13/2003
Pb214	*	5.40e-01	3.8e-02		PCI/GDRY	05/13/2003
Ra224		6.11e-01	2.3e-01		PCI/GDRY	05/13/2003
Ra226	*	1.25e+00	2.3e-01		PCI/GDRY	05/13/2003
Ra228		8.05e-01	5.6e-02		PCI/GDRY	05/13/2003
Th234	*	4.84e-01	1.9e-01		PCI/GDRY	05/13/2003
Tl208		2.78e-01	2.0e-02		PCI/GDRY	05/13/2003

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SAMPLE ANALYSIS REPORT

Sample #:	A3.02509F	QC batch #:	0002871R
Matrix:	SEDIMENT	Prep batch #:	0007756W
Sample type:	SAM	Prep procedure:	N/A
Amount analyzed:	5.840e+02 GDRY	Analysis procedure:	NAREL GAM-01
Dry/wet weight:	N/A	Analyst:	N/A
Ash/dry weight:	N/A	QC type:	ANA

COUNTING INFORMATION

Date and time	Duration (min)	Detector ID	Operator
05/19/2003 15:19	1000.0	GE06	RCL

ANALYTICAL RESULTS

Analyte		Activity	± 2σ Uncertainty	MDC	Unit	Date
Ba140		ND		7.0e-02	PCI/GDRY	05/13/2003
Be7		1.58e-01	6.7e-02		PCI/GDRY	05/13/2003
Bi212		7.53e-01	1.2e-01		PCI/GDRY	05/13/2003
Bi214	*	5.34e-01	3.8e-02		PCI/GDRY	05/13/2003
Co60		ND		1.9e-02	CI/GDRY	05/13/2003
Cs137		3.87e-02	9.4e-03		PCI/GDRY	05/13/2003
I131		ND		2.3e-02	PCI/GDRY	05/13/2003
K40		1.23e+01	7.4e-01		PCI/GDRY	05/13/2003
Pb212		8.17e-01	5.2e-02		PCI/GDRY	05/13/2003
Pb214	*	5.59e-01	3.9e-02		PCI/GDRY	05/13/2003
Ra223		5.42e-02	4.5e-02		PCI/GDRY	05/13/2003
Ra224		5.02e-01	2.4e-01		PCI/GDRY	05/13/2003
Ra226	*	1.31e+00	2.1e-01		PCI/GDRY	05/13/2003
Ra228		7.83e-01	5.5e-02		PCI/GDRY	05/13/2003
Th234	*	9.40e-01	1.8e-01		PCI/GDRY	05/13/2003
Tl208		2.70e-01	2.0e-02		PCI/GDRY	05/13/2003

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SAMPLE ANALYSIS REPORT

Sample #:	A3.02510Y	QC batch #:	0002871R
Matrix:	SEDIMENT	Prep batch #:	0007756W
Sample type:	SAM	Prep procedure:	N/A
Amount analyzed:	5.780e+02 GDRY	Analysis procedure:	NAREL GAM-01
Dry/wet weight:	N/A	Analyst:	N/A
Ash/dry weight:	N/A	QC type:	ANA

COUNTING INFORMATION

Date and time	Duration (min)	Detector ID	Operator
05/19/2003 15:19	1000.0	GE07	RCL

ANALYTICAL RESULTS

Analyte		Activity	± 2σ Uncertainty	MDC	Unit	Date
Ba140		ND		8.2e-02	PCI/GDRY	05/13/2003
Be7		8.41e-02	6.0e-02		PCI/GDRY	05/13/2003
Bi212		6.55e-01	1.4e-01		PCI/GDRY	05/13/2003
Bi214	*	5.09e-01	3.9e-02		PCI/GDRY	05/13/2003
Co60		ND		2.0e-02	PCI/GDRY	05/13/2003
Cs137		3.06e-02	9.4e-03		PCI/GDRY	05/13/2003
I131		ND		2.6e-02	PCI/GDRY	05/13/2003
K40		1.23e+01	7.5e-01		PCI/GDRY	05/13/2003
Pb212		7.81e-01	5.1e-02		PCI/GDRY	05/13/2003
Pb214	*	5.38e-01	3.9e-02		PCI/GDRY	05/13/2003
Ra224		5.71e-01	2.8e-01		PCI/GDRY	05/13/2003
Ra226	*	1.11e+00	2.5e-01		PCI/GDRY	05/13/2003
Ra228		7.50e-01	5.5e-02		PCI/GDRY	05/13/2003
Th234	*	1.01e+00	2.4e-01		PCI/GDRY	05/13/2003
Tl208		2.53e-01	2.0e-02		PCI/GDRY	05/13/2003

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SAMPLE ANALYSIS REPORT

Sample #:	A3.02510Y	QC batch #:	0002871R
Matrix:	SEDIMENT	Prep batch #:	0007756W
Sample type:	SAM	Prep procedure:	N/A
Amount analyzed:	5.780e+02 GDRY	Analysis procedure:	NAREL GAM-01
Dry/wet weight:	N/A	Analyst:	N/A
Ash/dry weight:	N/A	QC type:	DUP

COUNTING INFORMATION

Date and time	Duration (min)	Detector ID	Operator
05/20/2003 14:34	1000.0	GE09	RCL

ANALYTICAL RESULTS

Analyte		Activity	± 2σ Uncertainty	MDC	Unit	Date
Ba140		ND		8.7e-02	PCI/GDRY	05/13/2003
Be7		9.40e-02	6.4e-02		PCI/GDRY	05/13/2003
Bi212		8.08e-01	1.4e-01		PCI/GDRY	05/13/2003
Bi214	*	5.24e-01	3.8e-02		PCI/GDRY	05/13/2003
Co60		ND		2.1e-02	PCI/GDRY	05/13/2003
Cs137		2.78e-02	8.3e-03		PCI/GDRY	05/13/2003
I131		ND		2.9e-02	PCI/GDRY	05/13/2003
K40		1.25e+01	7.6e-01		PCI/GDRY	05/13/2003
Pb212		7.97e-01	5.2e-02		PCI/GDRY	05/13/2003
Pb214	*	5.42e-01	3.9e-02		PCI/GDRY	05/13/2003
Ra223		4.53e-02	4.6e-02		PCI/GDRY	05/13/2003
Ra224		5.79e-01	2.6e-01		PCI/GDRY	05/13/2003
Ra226	*	1.08e+00	2.2e-01		PCI/GDRY	05/13/2003
Ra228		7.60e-01	5.5e-02		PCI/GDRY	05/13/2003
Tl208		2.64e-01	2.0e-02		PCI/GDRY	05/13/2003

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SAMPLE ANALYSIS REPORT

Sample #:	A3.02511Z	QC batch #:	0002871R
Matrix:	SEDIMENT	Prep batch #:	0007756W
Sample type:	SAM	Prep procedure:	N/A
Amount analyzed:	4.610e+02 GDRY	Analysis procedure:	NAREL GAM-01
Dry/wet weight:	N/A	Analyst:	N/A
Ash/dry weight:	N/A	QC type:	ANA

COUNTING INFORMATION

Date and time	Duration (min)	Detector ID	Operator
05/19/2003 15:19	1000.0	GE08	RCL

ANALYTICAL RESULTS

Analyte		Activity	± 2σ Uncertainty	MDC	Unit	Date
Ba140		ND		2.0e-01	PCI/GDRY	05/13/2003
Bi212		6.99e-01	3.7e-01		PCI/GDRY	05/13/2003
Bi214	*	4.84e-01	4.9e-02		PCI/GDRY	05/13/2003
Co60		8.75e+00	5.0e-01		PCI/GDRY	05/13/2003
Cs137		1.16e-01	2.3e-02		PCI/GDRY	05/13/2003
I131		ND		5.2e-02	PCI/GDRY	05/13/2003
K40		9.08e+00	6.0e-01		PCI/GDRY	05/13/2003
Pb210		1.47e+00	3.9e-01		PCI/GDRY	05/13/2003
Pb212		6.59e-01	5.1e-02		PCI/GDRY	05/13/2003
Pb214	*	5.58e-01	4.8e-02		PCI/GDRY	05/13/2003
Ra224		6.77e-01	4.5e-01		PCI/GDRY	05/13/2003
Ra226	*	1.53e+00	3.6e-01		PCI/GDRY	05/13/2003
Ra228		5.56e-01	8.5e-02		PCI/GDRY	05/13/2003
Th234	*	5.40e-01	1.7e-01		PCI/GDRY	05/13/2003
Tl208		2.21e-01	2.7e-02		PCI/GDRY	05/13/2003

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GAMMA ANALYSES
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QC BATCH SUMMARY

QC batch #: 0002871R
Preparation procedure: N/A
Analysis procedure: NAREL GAM-01

NAREL Sample #	QC Type	Yield (%)	± 2σ Uncertainty (%)	Analyst
A3.02504A		N/A		N/A
A3.02505B		N/A		N/A
A3.02506C		N/A		N/A
A3.02507D		N/A		N/A
A3.02508E		N/A		N/A
A3.02509F		N/A		N/A
A3.02510Y		N/A		N/A
A3.02510Y	DUP	N/A		N/A
A3.02511Z		N/A		N/A

* Samples marked with an asterisk are not in this sample delivery group but were analyzed with it for QC purposes.

National Air and Radiation Environmental Laboratory
QC Batch Report

QC Batch #: 0002871R Analytical Procedure: NAREL GAM-01

LABORATORY DUPLICATES (PCI/GDRY)

Sample ID	Nuclide	Original ± 2σ	Duplicate ± 2σ	RPD	Z
A3.02510Y	BA140				
A3.02510Y	BE7	8.41e-02 ± 6.0e-02	9.40e-02 ± 6.4e-02	11.12	0.22 OK
A3.02510Y	BI212	6.55e-01 ± 1.4e-01	8.08e-01 ± 1.4e-01	20.92	1.37 OK
A3.02510Y	CO60				
A3.02510Y	CS137	3.06e-02 ± 9.4e-03	2.78e-02 ± 8.3e-03	9.59	-0.42 OK
A3.02510Y	I131				
A3.02510Y	K40	1.23e+01 ± 7.5e-01	1.25e+01 ± 7.6e-01	1.61	0.19 OK
A3.02510Y	PB212	7.81e-01 ± 5.1e-02	7.97e-01 ± 5.2e-02	2.03	0.24 OK
A3.02510Y	RA224	5.71e-01 ± 2.8e-01	5.79e-01 ± 2.6e-01	1.39	0.04 OK
A3.02510Y	RA228	7.50e-01 ± 5.5e-02	7.60e-01 ± 5.5e-02	1.32	0.15 OK
A3.02510Y	TL208	2.53e-01 ± 2.0e-02	2.64e-01 ± 2.0e-02	4.26	0.47 OK

Analyst: Robert C Lowry 5-23-03
Lowry, Robert C.

QA Officer: _____ _____