SRMs to Stock

	Year	NEI	Rewritten (w/o meas)	Recertified (w/meas)	New (others)	New (SRM)
Old Era	2002	9	0	0	0	0
	2003	9	0	0	0	^{232}U
	2004	9	^{3}H (2)	0	0	^{226}Ra
	2005	9	0	0	0	0
New Era	2005	9	^{63}Ni	^{243}Am, ^{209}Po	^{226}Ra/^{222}Rn (4)	^{60}Co ^{137}Cs
	2006	9	^{240}Pu , ^{244}Cm, ^{133}Ba, ^{129}I	(^{63}Ni)	Seaweed	^{55}Fe, ^{166m}Ho, ^{210}Pb
	2007 to date	2	^{3}H (3), ^{226}Ra Natural Uranium	0	Rocky Flats #2 ^{226}Ra (2)	^{90}Sr (2)

^{60}Co

- 48 ampoules prepared in 2003
- Ion Chamber “A” measurements in 2004

- Ion Chamber “A” measurements in 2005
  - Two occasions
- Data reconciliation
- Certified

^{137}Cs

- 100 ampoules prepared in 2000
- Ion Chamber “A” measurements in 2001
  - 4 occasions

- Data reconciliation for 2001 measurements in 2005
- Re-measurement in Ion Chamber “A” in 2005
- Data Reconciliation
- Certified

^{55}Fe and ^{210}Pb

^{55}Fe

- Master and ampoules prepared in 2005
- LS measurements
- Intercomparison
- Certified

^{210}Pb

- Ampoules prepared in 1999

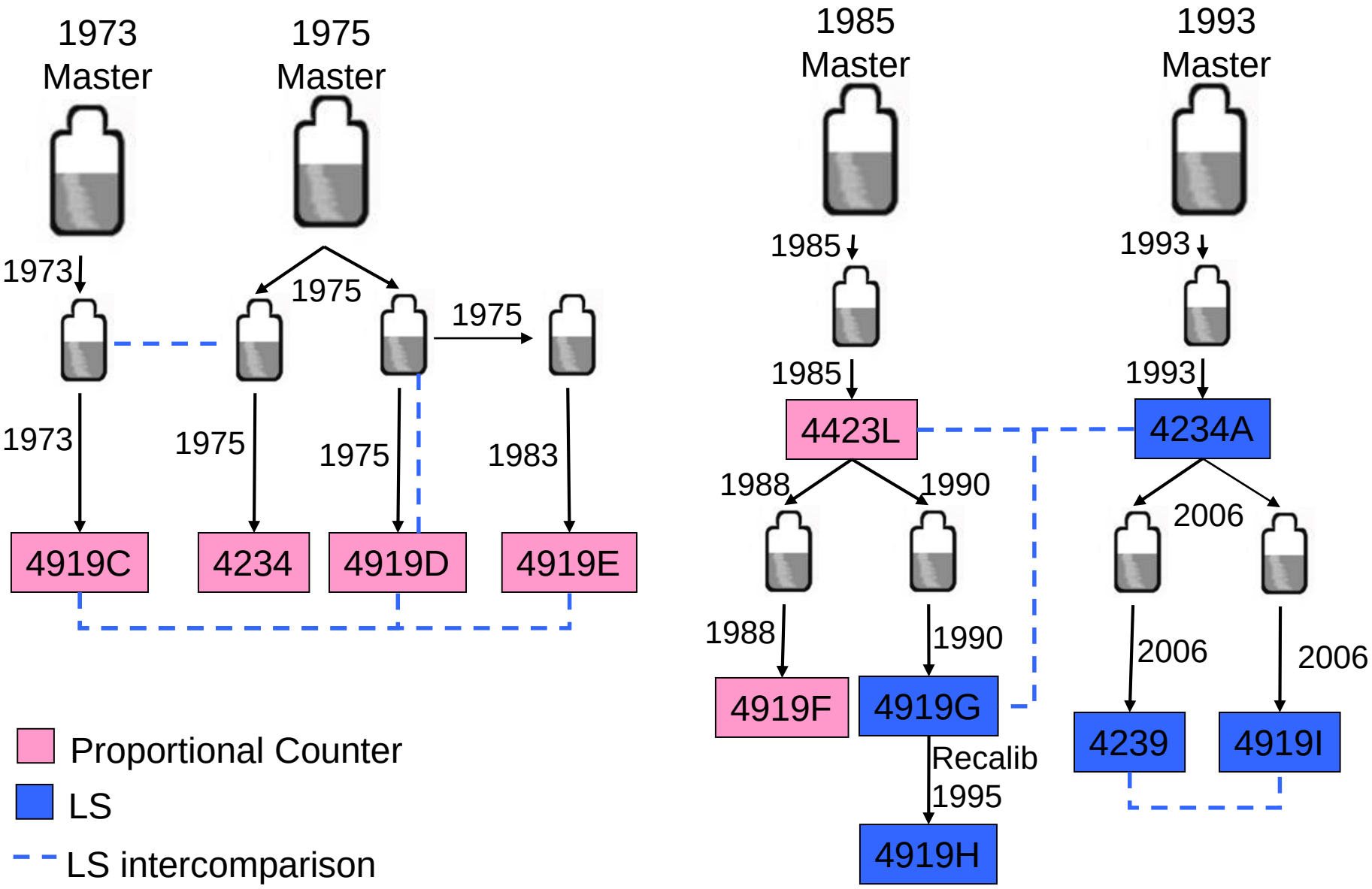
- LS measurements in 2006
- Certified

^{166m}Ho

- 226 ampoules prepared in 1997
- IC measurements in 1997

- High resolution gamma-ray spectrometry
  - gamma-ray emission rates
- IC Measurements in 2006 for confirmation
  - (based on K-value from Lucas with NaI total γ)
- Data reconciliation
- Certified

Sr-90 History



^{90}Sr

Two activity levels

- High- LS CNET
  - 294 activity determinations, variables include
    - 7 samples
    - 3 counters (one to two occasions)
    - 3 to 5 cycles
    - 3 cocktails composition
    - 15 day aging
- Low
  - 6 activity ratios for dilution confirmation

Recent Comparison of Primary Methods

Nuclide	Methods	% Difference
^{63}Ni	TDCR (LNHB) TDCR (BEZ) CNET	-0.31% 1 -0.77%*
^{90}Sr	TDCR (BEZ) CNET	1 +0.09%
^{210}Pb	CNET Anticoincidence β(LS)-γ(NaI)	1 +0.7%
^{241}Pu	TDCR (BEZ) CNET	Coming
^{241}Am	CNET Anticoincidence β(LS)-γ(NaI)	Coming

* was +0.16% from certificate

Working on…

^{230}Th (ampoules prepared)
^{241}Pu (material at hand)
^{241}Am (material at hand)
^{242}Pu (buy back & dilute)
^{228}Ra -Jerry

Next

^{209}Po
^{63}Ni
^{99}Tc

Later

^{244}Cm
^{229}Th

Projected Out of Stock

SRM	Name	Status
4353	Rocky Flats Soil #2	Out of Stock
4342	Thorium-230	Out of Stock
4340A	Plutonium-241	Out of Stock
4322B	Americium-241	Out of Stock
4326	Polonium-209	Out of Stock
4339A	Radium-228	Out of Stock
4320A	Curium-244	Out of Stock
4328B	Thorium-229	Out of Stock
4355	Peruvian Soil Powder	Out of Stock
4332D	Americium-243	Jun-07
4966	Radium-226	Sep-07
4357	Ocean Sediment	Jan-08
4218F	Europium-152 PS	Mar-08
4341	Neptunium-237	May-08
4927F	Hydrogen-3	Jul-08
4973	Radon-222 Emanation std	Aug-08
4354	Lake Sediment	Nov-08
4325	Beryllium-10/9	Jan-09
4334H	Plutonium-242	Mar-09
4926E	Hydrogen-3	Apr-09
4226C	Nickel-63	Jun-09
4974	Radon-222 Emanation std	Jun-09
4990C	Oxalic Acid	Jan-10
4350B	River Sediment	May-10
4943	Chlorine-36	May-10
4361C	Hydrogen-3	Jun-10
4949C	Iodine-129	Sep-10

Projected Out of Stock

4222C	Carbon-14 (as hexadecane)	Jan-11
4965	Radium-226	Mar-11
4947C	Hydrogen-3 (Toluene)	Jul-11
4321C	Natural Uranium	Aug-11
4929F	Iron-55	Nov-11
4324B	Uranium-232	Dec-11
4967A	Radium-226	Feb-12
4251C	Barium-133	Mar-12
4323B	Plutonium-238	Jun-12
4338A	Plutonium-240	Nov-12
4972	Radon-222 Emanation std	Jan-14
4241C	Barium-133 PS	Mar-14
4329	Curium-243	Mar-14
4330B	Plutonium-239	Mar-14
4351	Human Lung	Nov-14
4233E	Cesium-137	Dec-18
4971	Radon-222	Sep-19
4370C	Europium-152	Apr-23
4356	Ashed Bone	Jan-24
4352	Human Liver	Dec-24
4969	Radium-226	Feb-27
4201B	Niobium-94	Apr-51
4274	Holmium-166m	N/A
4337	Lead-210	N/A
4359	Seaweed	N/A

SRMs Sale History

March 9

	FY01	FY02	FY03	FY04	FY05	FY06	YTD
Total	554	492	483	528	482	424	177
NEI	135	136	107	123	116	109	42
Natural Matrix	57	18	60	88	62	36	7
SRM Program	362	338	316	317	304	279	128

Must think about NOW

^{3}H

SRM Number	Out of Stock	Activity Level	Volume/ Container
4927F	July 2008	600 kBq•g^{-1}	5-mL ampoule
4926E	April 2009	5 kBq•g^{-1}	20-mL septum vial
4361C	June 2010	2 Bq•g^{-1}	500-mL bottle

Who? When? What plan?