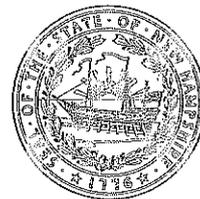




The State of New Hampshire
DEPARTMENT OF ENVIRONMENTAL SERVICES



Thomas S. Burack, Commissioner

February 17, 2011

Mr. John MacDonald
Vice President – Generation
Northeast Utilities
Public Service of New Hampshire
780 North Commercial Street
Manchester, NH 03101

Re: Preliminary Determination of Baseline Mercury Input and Record Hearing

Dear Mr. MacDonald:

The New Hampshire Department of Environmental Services, Air Resources Division (DES) has prepared a preliminary determination of the baseline mercury input pursuant to RSA 125-O:14, I. A public notice announcing the issuance of the preliminary determination and a record hearing will be published in the *Union Leader*, the *Concord Monitor*, and the *Portsmouth Herald* on February 18, 2011. The public comment period will end on March 21, 2011.

A copy of the preliminary determination and public notice are enclosed. Comments must be received by DES by the close of the comment period. If you have any questions regarding this preliminary determination, please contact Elizabeth Nixon of the Air Resources Division, Permitting & Environmental Health Bureau at (603) 271-0883 or via e-mail at elizabeth.nixon@des.nh.gov.

Sincerely,

Robert R. Scott
Director
Air Resources Division

By certified mail # 7002 3150 0004 7245 3016

cc: William Smagula, PSNH
Lynn Tillotson, PSNH
Interested Parties (via e-mail)

PRELIMINARY DETERMINATION ON BASELINE MERCURY INPUT

February 2011

RSA 125-O, *Multiple Pollutant Reduction Program*, was amended in 2006 to include strategies to reduce mercury emissions from coal-burning electric power plants in the State. Specifically, RSA 125-O:11-18 became effective on June 8, 2006, and requires statewide reductions in mercury emissions from “affected sources” defined as Merrimack Units 1 and 2 in Bow and Schiller Units 4, 5, and 6 in Portsmouth. RSA 125-O:13, II requires the total mercury emissions from the “affected sources” to be at least 80 percent less, on an annual basis, than the baseline mercury input, as defined in RSA 125-O:12, III, beginning on July 1, 2013. RSA 125-O:14, III(a), requires the “owner” of the “affected sources” to provide a written report to DES that includes the calculations used to determine the baseline mercury input. DES then verifies this data and makes a determination of the baseline mercury input and the baseline mercury emissions. The following serves as DES’s preliminary determination of the baseline mercury input pursuant to RSA 125-O:11-18.

Background

RSA 125-O:14, I, required PSNH to collect and analyze samples of coal on a monthly basis to determine the mercury content of the coal used in the “affected sources.” For purposes of the baseline mercury input determination, RSA 125-O:14, I(b) required coal sampling to occur at Merrimack Station Unit 1 and Unit 2 and at either Schiller Station Unit 4 or Unit 6 to serve as representative of all the Schiller Station units. Pursuant to RSA 125-O:14, I(a), coal sampling was conducted on a monthly basis beginning in August of 2006 and ending in July of 2007.

On August 30, 2006, PSNH submitted to DES, via fax, its baseline testing plan. In response, on October 2, 2006, DES sent PSNH a letter requesting additional information on, among other things, the coal sampling plan and a further explanation of how PSNH interpreted the phrase “coal used traditionally” as well as a demonstration that the samples were representative of such “traditional” coals. On December 12, 2006, DES and PSNH representatives met at the DES offices to discuss the information requested in the October 2, 2006 letter. Materials provided by PSNH at the December 12, 2006 meeting are in the DES file. As a follow-up to the meeting, on January 5, 2007, PSNH submitted to DES, via fax, a letter stating its position regarding the phrase “coal used traditionally” and “trial or test coal blends” as set forth in RSA 125-O:14, I(a).

On September 10, 2007, DES received from PSNH, via first-class mail, a Baseline Mercury Input Report (“the Report”). In the Report, PSNH calculated the average monthly mercury content for Merrimack Station Unit 1 (“MK1”) using a 2:1:1 blend of coal, consisting of 50% high sulfur coal, 25% Bailey (mid-sulfur) coal, and 25% Venezuelan (low sulfur) coal. For Merrimack Unit 2 (“MK2”), PSNH calculated the average monthly mercury content based upon 100% Bailey (mid-sulfur) coal, arguing that Bailey coal is the “traditional” fuel used in Merrimack Unit 2. Lastly, for Schiller Station, PSNH calculated the average monthly mercury

content using a simple average of the mercury content of the fuels since Schiller Station “traditionally” used a homogeneous blend of Venezuelan coals. Based upon these assumptions and the resulting calculations, PSNH asserted that the baseline mercury input for all “affected sources” was 326 pounds. On December 28, 2007, DES sent PSNH a letter requesting additional information so that DES could review the methodologies in the Report. DES sent a follow-up e-mail on August 12, 2008.

On October 27, 2009, PSNH submitted additional information related to coal type, tonnage, and mercury content. On October 29, 2009, DES sent a letter to PSNH requesting further additional information so that DES could finalize its review and determination of the baseline mercury input. On November 30, 2009, DES received from PSNH, via e-mail, its response to the October 29, 2009 letter. On February 5, 2010, DES sent PSNH another letter, stating that PSNH had submitted some, but not all, of the information requested in the October 29, 2009 letter.

On March 9, 2010, DES received a letter from PSNH with additional information for determining the baseline mercury input. In the letter, PSNH stated that it had previously calculated the average mercury content of coal and mercury baseline input using analytical data which was believed to be reported on an “as received” basis; however, further review of the lab analyses provided by coal suppliers revealed that the results were, in fact, reported on a dry basis rather than “as received.” Accordingly, PSNH updated its baseline mercury input calculation and concluded that the baseline mercury input was 308 pounds.

Analysis

RSA 125-O:12-14, establishes a comprehensive statutory scheme for defining, measuring and determining compliance with mercury emissions reduction requirements at the existing coal-burning power plant units in the State, specifically, Merrimack Units 1 and 2 in Bow and Schiller Units 4, 5, and 6 in Portsmouth (defined in RSA 125-O:12, I as the “affected sources”).

RSA 125-O:12, III defines the “baseline mercury input” as the total annual mercury emissions from all of the affected sources, calculated in accordance with RSA 125-O:14, I. RSA 125-O:14, I(a) provides that the baseline mercury input shall be determined by collecting a “representative monthly sample of the coal used traditionally (not to include trial or test coal blends)” for a 12-month period, commencing on the first day of the second month following the effective date of the section (August 2006). RSA 125-O:14, I(a) then provides:

that the mercury content of the coal derived from this analysis shall be multiplied by the average annual throughput of coal for the period 2003, 2004, and 2005 (average tons of coal combusted per year) to yield the average pounds of mercury input per year into each affected source. The sum of these annual input pound averages from each affected source shall equal the baseline mercury input.

The compliance provisions in RSA 125-O:13, II then provide that, beginning on July 1, 2013, the total mercury emissions from the affected sources shall be at least 80 percent less, on an annual basis, than the baseline mercury input.

RSA 125-O limits the representative sample to “coal used traditionally.” PSNH has argued that this phrase requires an inquiry into historical use going back many decades and would exclude even blends that have been consistently in use for many years prior to the sampling period. DES disagrees with this interpretation. In RSA 125-O:14, I(a), the phrase “coal used traditionally” is followed by a parenthetical stating “not to include trial or test coal blends”. This parenthetical serves as an explanation of the meaning of the phrase “coal used traditionally.” The term “traditionally” merely intends to exclude coal blends used on a “trial” or “test” basis in order to avoid anomalous results. The intent was to exclude “trial or test coal blends” because these would not be indicative of normal operation during the sampling period. Based on this determination, DES has recalculated the appropriate baseline mercury input using the proper coal blends for each of the “affected sources” below.

Merrimack Station

In its January 5, 2007 letter, PSNH stated that the Merrimack units were originally designed to burn higher sulfur coals and that prior to the implementation of the N.H. Multiple Pollutant Reduction Program and the Federal Title IV Acid Rain requirements, Merrimack Station’s two units began burning what PSNH refers to as “lower sulfur test coals and blends.” The N.H. Multiple Pollutant Reduction Program was enacted in 2002 and the Federal Acid Rain Program required emission reductions in 2000. Since the implementation of these programs, PSNH argues that MK1 used a blend of 50% high sulfur coal, 25% Bailey (mid-sulfur) coal, and 25% Venezuelan (low sulfur) coal. It further states that MK2 has historically used 100% Bailey (mid-sulfur) coal. PSNH further states: “These coals remain the standard traditional coals, while a number of test blends have been investigated in an effort to identify alternate lower sulfur coal blends that will successfully burn in the cyclone boilers, can be dependably procured and are economically feasible, to meet new lower sulfur emission requirements.” These so-called “test blends” consisted of a number of low mercury coals including “Russian” coal, Pocahontas coal, and Venezuelan coal. PSNH has asserted that all of the low mercury coals were “test or trial blends.” See Attachment A (showing graphically PSNH’s indication of test blends).

With respect to “Russian” coal, PSNH is correct: the “Russian” coal appears to be a “trial or test coal blend” as there was only a short term, anomalous use of this coal. Specifically, during the sampling period, MK1 did not use any “Russian” coal. At MK2, only three percent (3%) of the total coal used during the sampling period was “Russian” coal. Between 1997 and 2008, PSNH only used Russian coal sporadically and for a very short amount of time. MK1 only used a very small percentage (less than three percent on a monthly basis) of Russian coal in October 2005. MK2 only used a small amount on monthly basis (from 3 to 24 percent) from August 2005 through September 2006. Other than the brief period mentioned, PSNH did not use Russian coal. All of these factors taken together indicate that the “Russian” coal was a “trial or test coal blend.” However, based upon the information submitted by PSNH, DES does not consider the other low mercury coals as “trial or test coal blends.”

In reviewing the coal usage back to January 1997, MK1 historically burned high sulfur coal (50-100%) mixed with either Indonesian coal or Bailey (mid-sulfur) coal. In late 1998 and 1999, MK1 used high sulfur coal (about 50-60%) mixed with Venezuelan and mid-sulfur (Bailey) coal. In 2000, MK1 used a coal blend with a 2:1:1 ratio of high sulfur coal, Bailey (mid-sulfur) coal, and Venezuelan coal. In 2001 and 2002, MK1 burned mixtures of high sulfur coal and Venezuelan coal or high sulfur coal sometimes mixed with either Bailey (mid-sulfur) and/or Pocahontas. In 2003 through mid 2008, MK1 primarily burned a coal blend with a 1:1:1 ratio of high sulfur coal, Venezuelan coal, and Pocahontas coal. Occasionally, during this time period Bailey (mid-sulfur) was also mixed into the blend.

MK2 used primarily Bailey (mid-sulfur) coal in 1997 and 1998, but in 1999, PSNH began using a small amount of Venezuelan coal and in 2001, began using Pocahontas coal. In 2003 and 2004, PSNH used a coal blend with about a 1:1:1 ratio of Venezuelan, Pocahontas, and mid-sulfur (Bailey) coal. In 2005 and 2006, PSNH continued to use Venezuelan and mid-sulfur (Bailey) coal and also mixed in Pocahontas, Russian, and high sulfur coal. In 2007 and 2008, PSNH primarily burned Venezuelan and Bailey (mid-sulfur) coal.

Consistent use of large quantities of these coal blends for nearly a decade leads to the conclusion that these are not “trial or test coal blends.” See [Attachment B](#) (showing graphical history of coal use).

Because PSNH excluded certain coals from its analysis as “trial or test coal blends,” the assertions regarding coal use by PSNH and the PSNH recommended mercury baseline are incorrect. For MK1, as stated above, PSNH argues that a blend of 50% high sulfur coal, 25% Bailey (mid-sulfur) coal, and 25% Venezuelan (low sulfur) coal was used. However, during the coal sampling period referenced in RSA 125-O:14, I(a), the coals used at MK1 consisted of approximately 36% high sulfur coal, 6% Bailey (mid-sulfur) coal, with the remaining 57% comprised of a mixture of Venezuelan and Pocahontas low mercury coals. Similarly, whereas PSNH claimed that 100% of coal used at MK2 was Bailey (mid-sulfur) coal, in actuality Bailey coal comprised only 48% of the coal used during the applicable time period. The remainder consisted of less than 1% high sulfur coal, 41% Venezuelan coal, and 7% Pocahontas coal. The coals used during the sampling period referenced in RSA 125-O:14, I(a) (August 2006 through July 2007) are set forth in the following table:

Table1. MK1 and MK2 Coal Consumption (August 2006 – July 2007)(tons)

	High Sulfur	Bailey (Mid-Sulfur)	Venezuelan	Pocahontas	Russian	Total
MK1	124,184	20,719	92,879	103,542	-	341,324
MK2	5,580	437,469	381,368	59,615	31,218	915,250

Because DES agrees that PSNH has demonstrated that “Russian” coal was a trial or test coal blend, DES has excluded it from its analysis. All of the remaining coals, however, were used to determine the total amount of each coal used during the applicable time period.

To determine the total adjusted amount of non-trial, test blend coal usage during the time period of August 2006 through July 2007, therefore, the total amount of trial coal (Russian) usage

during the time period (31,218 tons) was subtracted from the total coal usage during the time period (915,250 tons) for a total non-trial, test coal blend usage of 884,032 tons.

For the baseline period of August 2006 through July 2007, DES then calculated the coals used on a percentage basis by PSNH at MK1 and MK2 as shown in Table 2:

Table 2. MK1 and MK2 Coal Consumption (August 2006 – July 2007)(%)

	High Sulfur	Bailey (Mid-Sulfur)	Venezuelan	Pocahontas
MK1	36%	6%	27%	30%
MK2	1%	49%	43%	7%

Schiller Station

For Schiller Units 4, 5, and 6, DES concurs with PSNH that the coal used traditionally is 100% Venezuelan. Therefore, for Schiller Station, the baseline mercury input calculations shall be based on an assumption of 100% Venezuelan coal.

Determination of Baseline Mercury Input

The statute describes the method for calculating the baseline mercury input. The steps are as follows:

- 1) Determine the average mercury input by sampling and analyzing the coal used at each affected source to determine the average mercury content of the coal “traditionally” combusted from August 2006 through July 2007, expressed in pounds of mercury per ton of coal combusted at each affected source;
- 2) Determine the annual average coal throughput for each affected source for the years 2003, 2004, and 2005; and
- 3) Calculate the Baseline Mercury Input by multiplying the average mercury content of the coal used in each unit by the annual average coal throughput.

Step 1: Determining the Average Mercury Input

Based upon the analysis above, in order to determine the mercury content of the coal, PSNH was required to sample the coal used at the affected units from August 2006 through July 2007. The total monthly mercury input is then determined by taking the sum of the mercury input by coal type. Mercury input by coal type is calculated by multiplying the total monthly coal throughput by the percentage usage of each coal type by the average monthly mercury coal content of each coal type by a conversion factor (changing parts per million to pounds per ton) as set forth in Equation 1.

Equation 1.

$$\text{Monthly Mercury Input (M) (lb Hg/month)} = \sum (T \times P \times Hg \times k)$$

Where:

T = Total monthly coal throughput (in tons of coal)

P = Percentage usage by coal type (%)

Hg = Average monthly mercury coal content by coal type (ppm)

k = conversion factor = 2000/1,000,000 (to convert Hg concentration from ppm to lbs/ton)

Values are summed over all applicable coal types.

The average annual mercury input of the coal for each affected unit is then determined by summing the total monthly mercury input found in Equation 1 and dividing that total by the total coal consumed for the period of August 2006 through July 2007 as set forth in Equation 2.

Equation 2.

$$\text{Average Annual Mercury Input by Unit (lb Hg/ton of coal)} = \frac{\sum M}{C}$$

Where:

M= Monthly Mercury Input (lb Hg/month)

C= Total Baseline Coal Consumption (tons of coal/12-month baseline period)

Values are summed over the 12-month period.

Based upon this methodology, DES has completed detailed mercury input calculations by unit. The results of these calculations are shown in Tables 3, 4, and 5 that follow.

Table 3. Average Annual Mercury Input Calculation – MK1

Aug 2006-July 2007%		Mercury Content (ppm) by Coal Type				Mercury Input (lbs)					Average Mercury Input lb/ton coal
	Total Coal Throughput (tons)	Bailey (6%)	Venezuelan (27%)	High Sulfur (36%)	Pocahontas (30%)	Bailey (6%)	Venezuelan (27%)	High Sulfur (36%)	Pocahontas (30%)	Mercury Input (lbs)	
Aug-06	34,161	0.118	0.034	0.088	0.078	0.49	0.63	2.16	1.59	4.87	
Sep-06	4,801	0.131	0.037	0.075	0.057	0.08	0.10	0.26	0.16	0.60	
Oct-06	27,517	0.117	0.030	0.070	0.052	0.38	0.45	1.40	0.86	3.09	
Nov-06	28,916	0.121	0.027	0.061	0.044	0.42	0.42	1.27	0.76	2.88	
Dec-06	29,442	0.103	0.031	0.105	0.050	0.36	0.50	2.22	0.89	3.97	
Jan-07	32,573	0.141	0.032	0.131	0.052	0.55	0.56	3.08	1.01	5.21	
Feb-07	26,943	0.143	0.014	0.161	0.052	0.46	0.21	3.13	0.84	4.64	
Mar-07	28,874	0.129	0.031	0.079	0.095	0.45	0.48	1.64	1.64	4.20	
Apr-07	31,333	0.125	0.040	0.069	0.095	0.47	0.68	1.56	1.78	4.49	
May-07	33,359	0.115	0.040	0.080	0.061	0.46	0.72	1.92	1.22	4.32	
Jun-07	29,329	0.126	0.036	0.198	0.054	0.44	0.57	4.19	0.94	6.15	
Jul-07	34,065	0.131	0.035	0.308	0.057	0.54	0.64	7.56	1.17	9.91	
Total	341,313					5.10	5.97	30.39	12.86	54.32	0.000159

Source: Coal Throughput – PSNH’s Annual Emission Reports; Mercury Content by Coal Type – PSNH Submittals dated 12/12/2006, 10/27/2009, 11/30/2009, and 3/9/2010
 Mid-Sulfur: Bailey
 High Sulfur: Emerald, Loveridge, Nelms
 C-Low Sulfur Venezuelan: Mina Norte, Pasa Diablo
 D-PRB Low Sulfur: Pocahontas

Table 4. Average Annual Mercury Input Calculation – MK2

Aug 2006 - July 2007%	Mercury Content (ppm) by Coal Type					Mercury Input (lbs)					Average Mercury Input lb/ton coal
	Total Coal Throughput (tons)	High Sulfur (1%)	Bailey (49%)	Venezuelan (43%)	Pocahontas (7%)	High Sulfur (1%)	Bailey (49%)	Venezuelan (43%)	Pocahontas (7%)	Mercury Input (lbs)	
Aug-06	96,238	0.088	0.118	0.034	0.078	0.17	11.17	2.81	1.05	15.20	
Sep-06	69,673	0.075	0.131	0.037	0.057	0.10	8.95	2.23	0.55	11.84	
Oct-06	92,176	0.070	0.117	0.030	0.052	0.13	10.53	2.39	0.67	13.72	
Nov-06	91,964	0.061	0.121	0.027	0.044	0.11	10.90	2.15	0.56	13.73	
Dec-06	76,279	0.105	0.103	0.031	0.050	0.16	7.72	2.06	0.54	10.48	
Jan-07	92,454	0.131	0.141	0.032	0.052	0.24	12.75	2.55	0.67	16.22	
Feb-07	64,351	0.161	0.143	0.014	0.052	0.21	9.01	0.80	0.47	10.48	
Mar-07	94,336	0.079	0.129	0.031	0.095	0.15	11.89	2.49	1.25	15.78	
Apr-07	49,307	0.069	0.125	0.040	0.095	0.07	6.03	1.70	0.65	8.46	
May-07	13,150	0.080	0.115	0.040	0.061	0.02	1.48	0.45	0.11	2.07	
Jun-07	83,669	0.198	0.126	0.036	0.054	0.33	10.35	2.60	0.63	13.91	
Jul-07	91,622	0.308	0.131	0.035	0.057	0.56	11.77	2.76	0.73	15.82	
Total	915,219					2.26	112.56	25.01	7.88	147.71	0.000161

Source: Coal Throughput – PSNH's Annual Emission Reports; Mercury Content by Coal Type – PSNH Submittals dated 12/12/2006, 10/27/2009, 11/30/2009, and 3/9/2010

Mid-sulfur: Bailey

High Sulfur: Emerald, Loveridge, Nelms

C-Low Sulfur Venezuelan: Mina Norte, Pasa Diablo

D-PRB Low Sulfur: Pocahontas

Table 5. Average Annual Mercury Input Calculation – Schiller

Aug 2006 - July 2007%		Mercury Content (ppm) by Coal Type	Mercury Input (lbs)	Average Mercury Input lb/ton coal
	Total Coal Throughput (tons)	Venezuelan (100%)	Venezuelan (100%)	
Aug-06	11,944	0.067	1.60	
Sep-06	13,237	0.037	0.99	
Oct-06	4,662	0.030	0.28	
Nov-06	6,583	0.027	0.36	
Dec-06	14,868	0.038	1.13	
Jan-07	15,394	0.032	0.99	
Feb-07	15,180	0.014	0.44	
Mar-07	13,174	0.031	0.81	
Apr-07	14,228	0.040	1.14	
May-07	14,889	0.083	2.48	
Jun-07	14,737	0.039	1.15	
Jul-07	11,275	0.035	0.79	
Total	150,171		12.14	0.000081

Source: Coal Throughput – PSNH's Annual Emission Reports; Mercury Content by Coal Type – PSNH Submittals dated 12/12/2006, 10/27/2009, 11/30/2009, and 3/9/2010
 C-Low Sulfur Venezuelan: Mina Norte, Pasa Diablo

Step 2: Determining the Annual Average Coal Throughput

RSA 125-O:14, I(a) specifies that the average annual coal throughput for the period of 2003, 2004, and 2005 (in average tons of coal combusted per year) for each affected unit shall be used in the baseline mercury input calculation. Table 6 summarizes the annual coal throughput for each of the affected sources as well as the average annual coal throughput.

Table 6. Annual Coal Throughput (tons per year)

	MK1	MK2	SR4	SR5	SR6
2003	363,074	768,968	151,299	154,756	150,286
2004	339,021	841,129	155,695	166,809	163,842
2005	354,865	870,802	157,304	157,879	164,952
Average Annual Throughput	352,320	826,966	154,766	159,815	159,693

Step 3: Calculating the Baseline Mercury Input

In order to determine the baseline mercury input, the average mercury input (lbs mercury/ton of coal) for each affected source (determined in Step 1) must be multiplied by the average coal throughput (tons of coal per year) for each affected source (determined in Step 2). The total baseline mercury input is then the sum of the average annual mercury input for all units as shown below in Table 7.

Table 7. Baseline Mercury Input

	Average Mercury Input (lb/ton)	Average Throughput (2003-2005) (tpy)	Average Annual Mercury Input (lbs/yr)
MK1	0.000159	352,320	56
MK2	0.000161	826,966	133
SR4	0.000081	154,766	13
SR5	0.000081	159,815	13
SR6	0.000081	159,693	13
Baseline Mercury Input			228

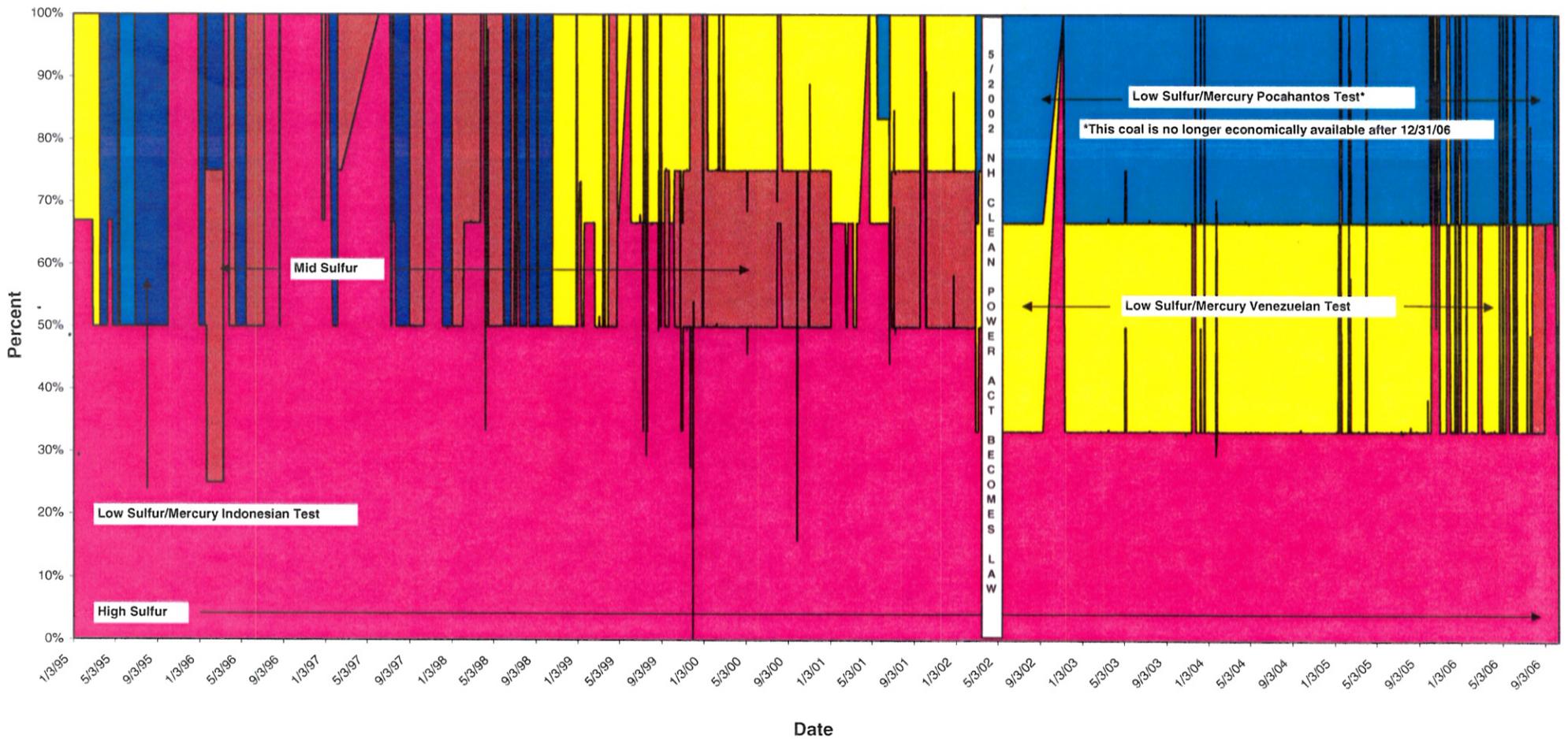
Conclusion

Based upon the analysis above, DES has made a determination that the baseline mercury input for the affected sources is 228 pounds per year. Accordingly, pursuant to RSA 125-O:13, II, the total mercury emissions from the affected sources shall be at least 80 percent less than 228 pounds per year, or 46 pounds per year, beginning on July 1, 2013.

ATTACHMENT A

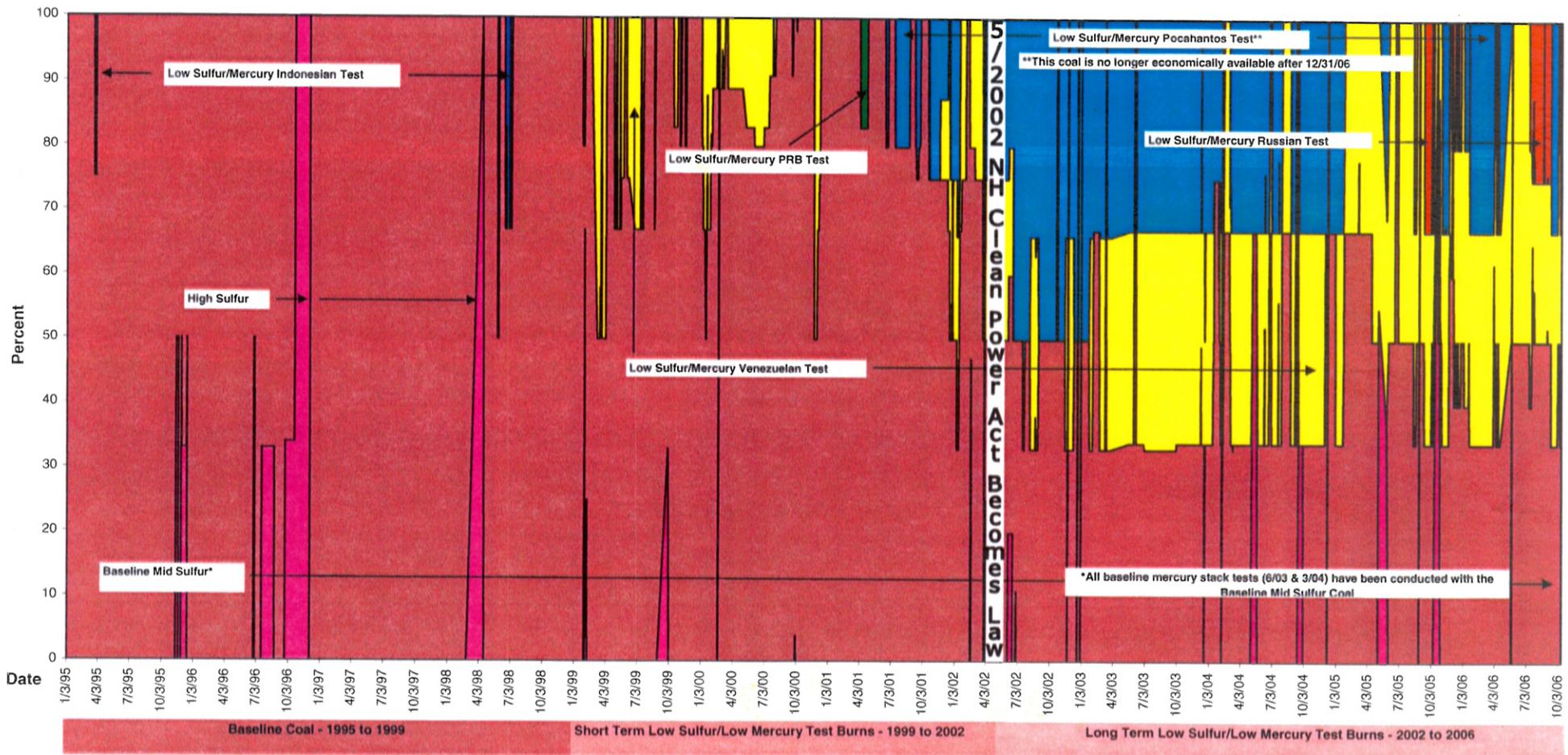
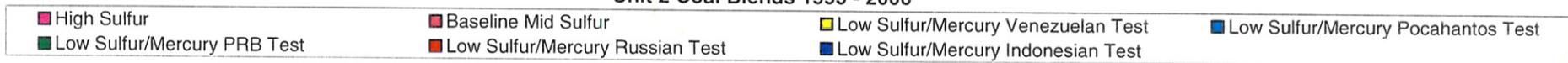
Unit 1 Coal Blends 1995-2006

■ High Sulfur
 ■ Mid Sulfur
 ■ Low Sulfur/Mercury Venezuelan Test
 ■ Low Sulfur/Mercury Pocahantos Test
 ■ Low Sulfur/Mercury Russian Test
 ■ Low Sulfur/Mercury Indonesian Test



Submitted by PSNH on 12/12/2006

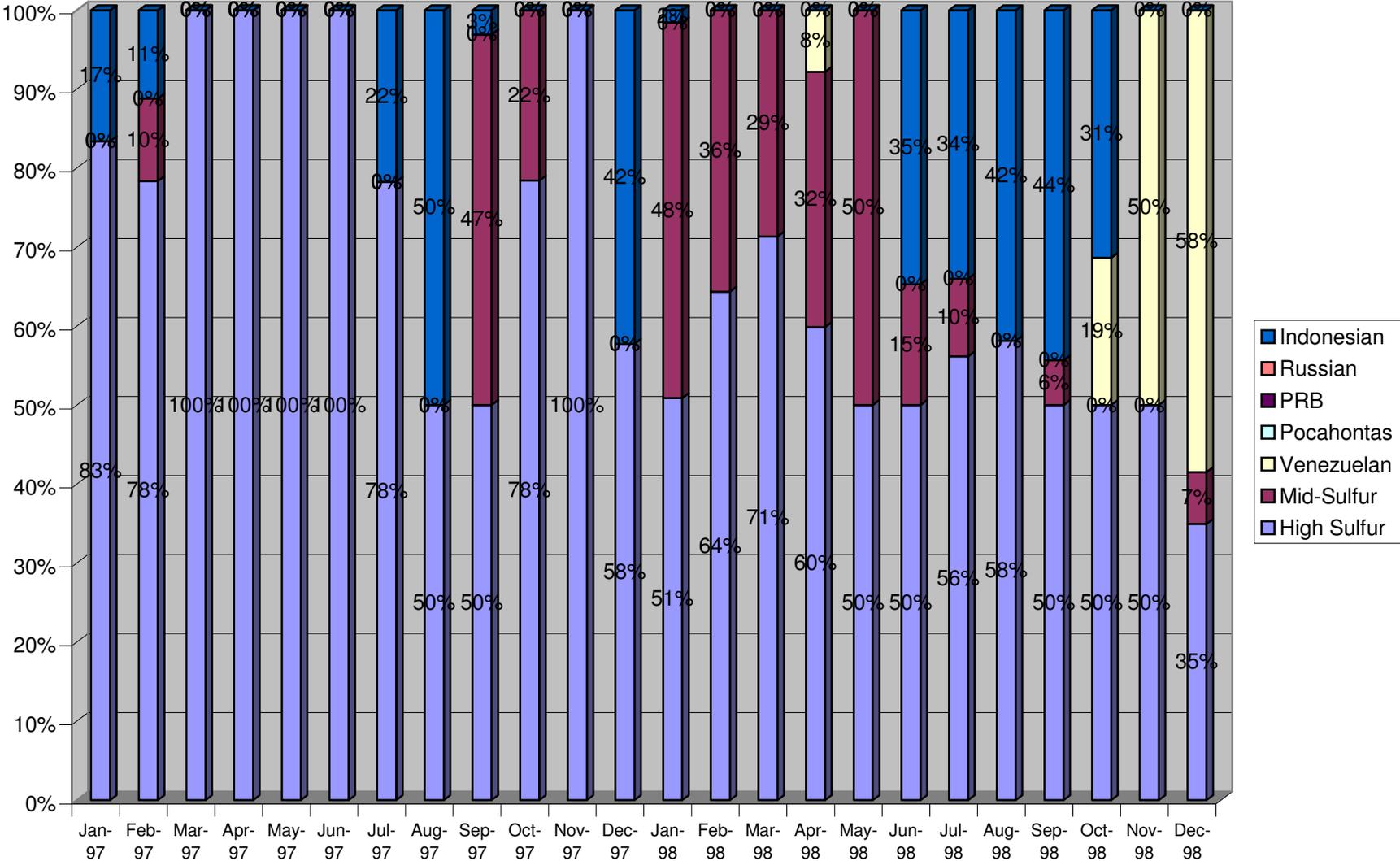
Unit 2 Coal Blends 1995 - 2006



Submitted by PSNH on 12/12/06

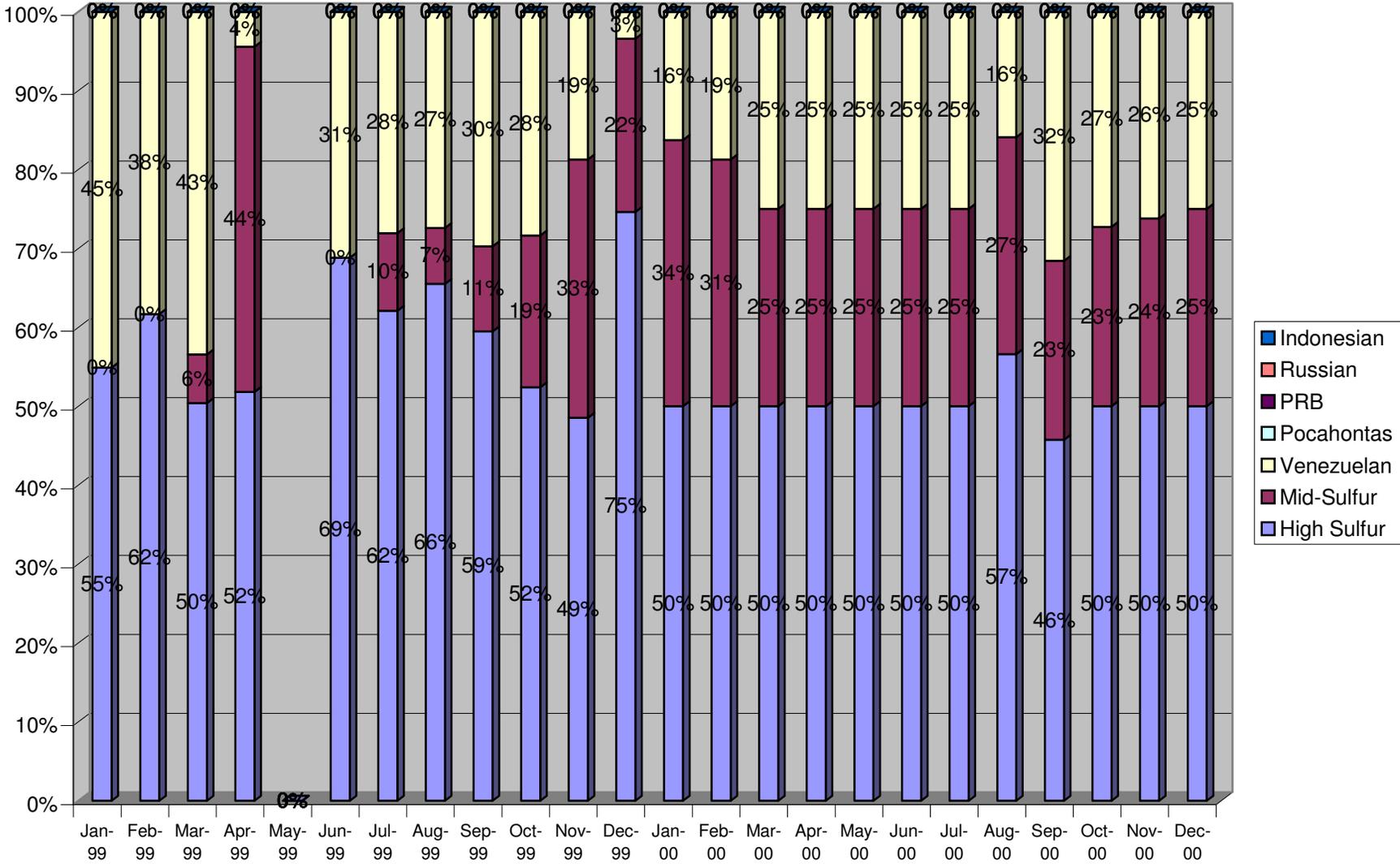
ATTACHMENT B

MK1 1997 1998



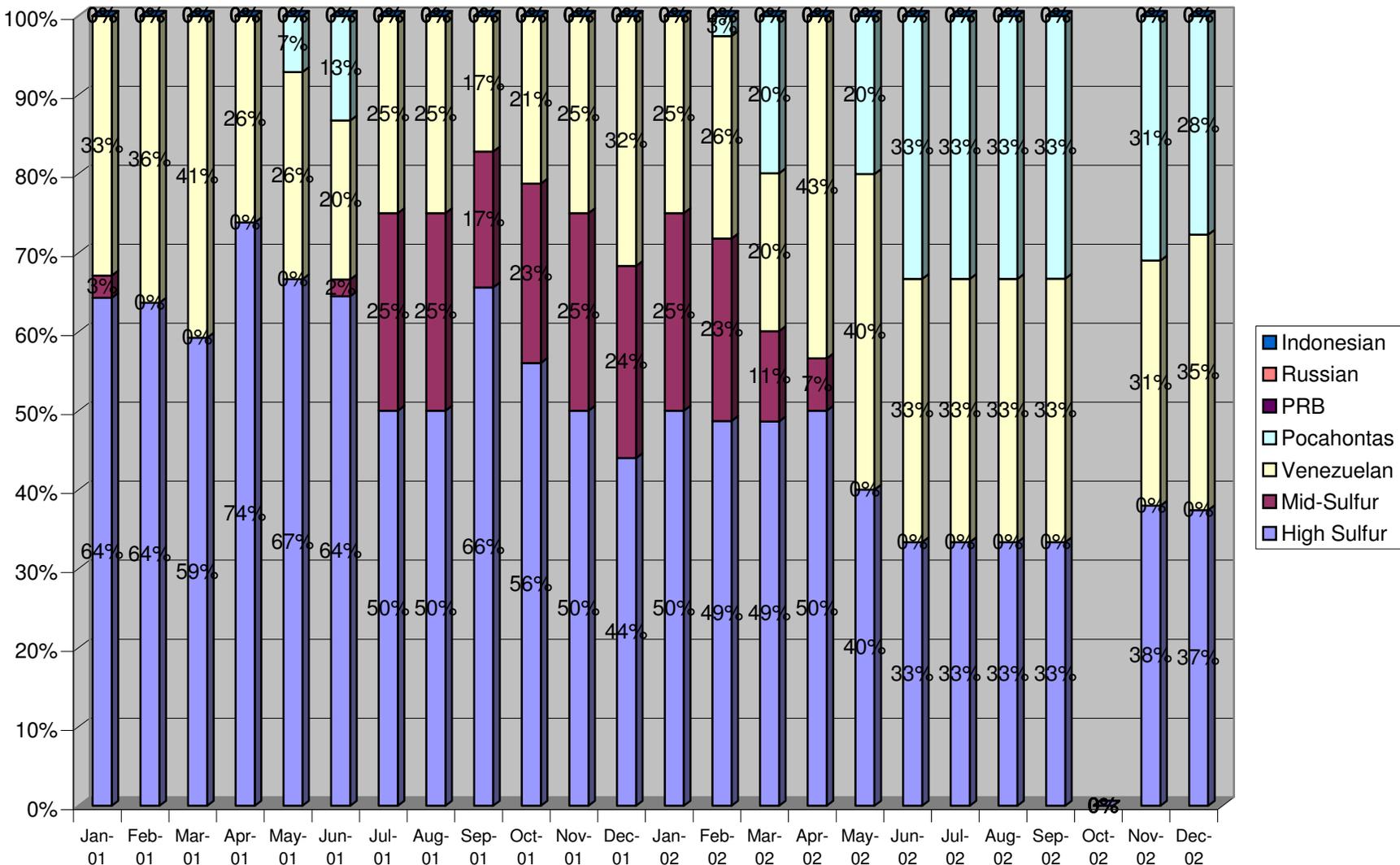
Source: PSNH submittals dated 10/27/2009 and 11/30/2009

MK1 1999 2000



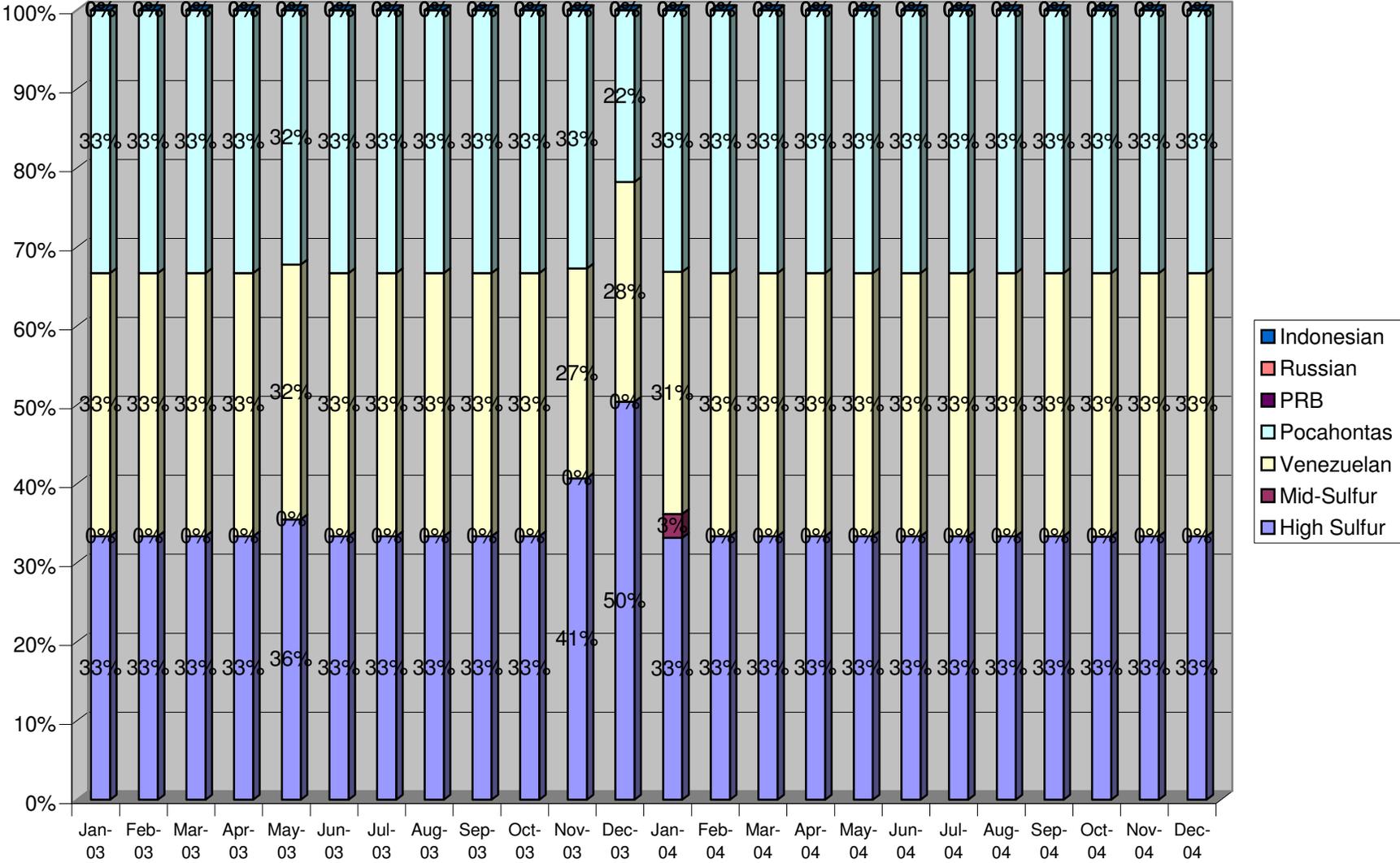
Source: PSNH submittals dated 10/27/2009 and 11/30/2009

MK1 2001 2002



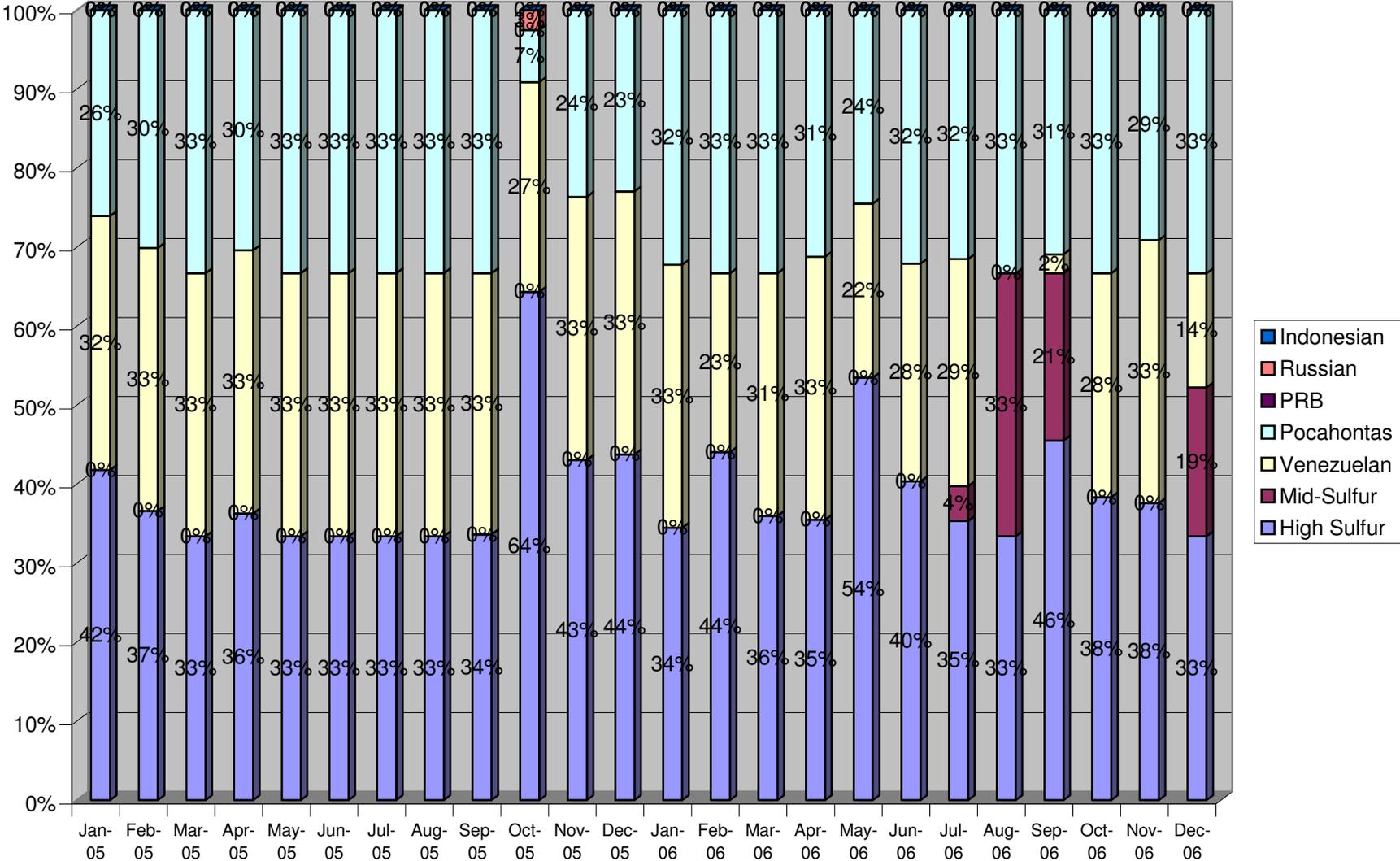
Source: PSNH submittals dated 10/27/2009 and 11/30/2009

MK1 2003 2004



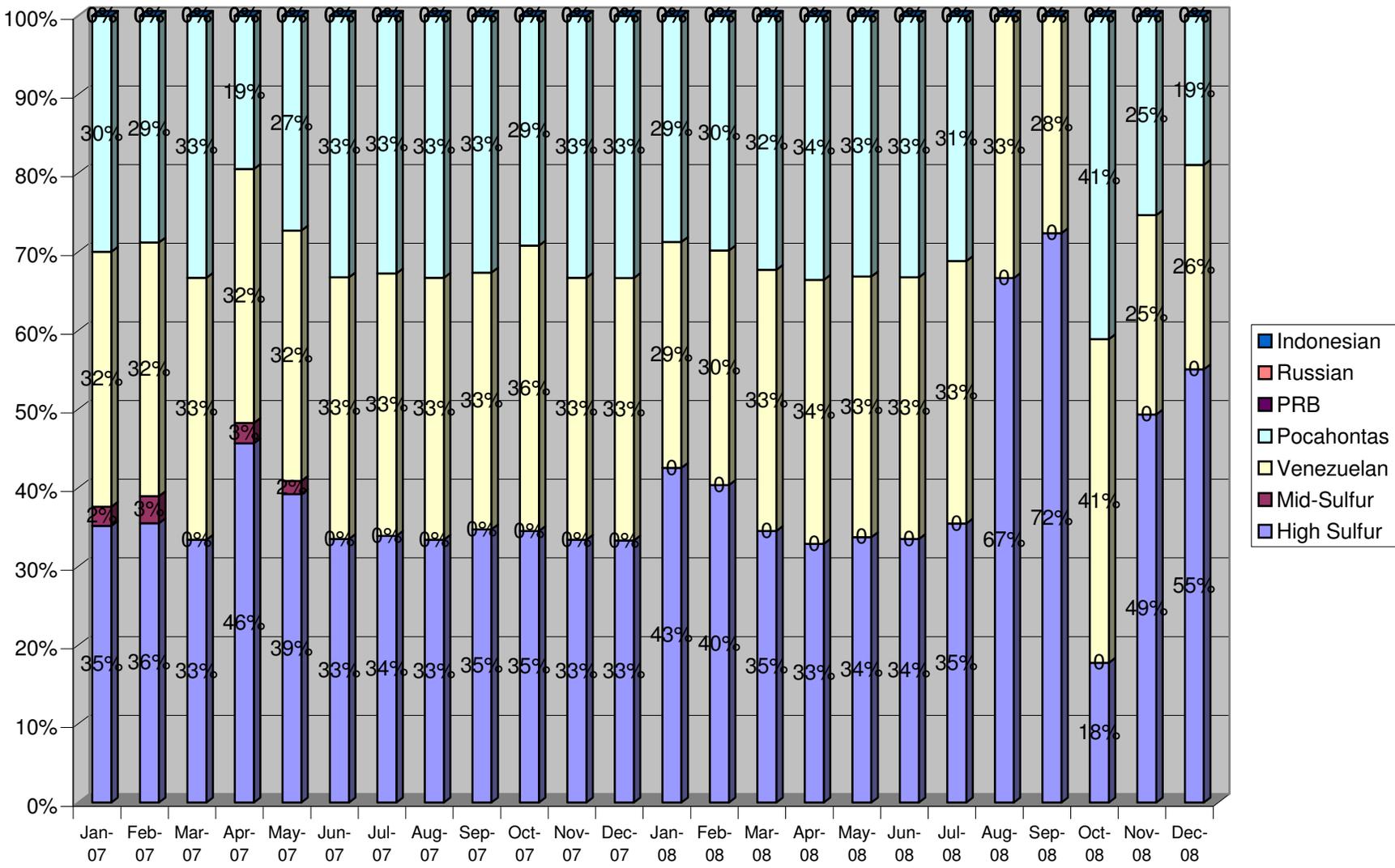
Source: PSNH submittals dated 10/27/2009 and 11/30/2009

MK1 2005 2006



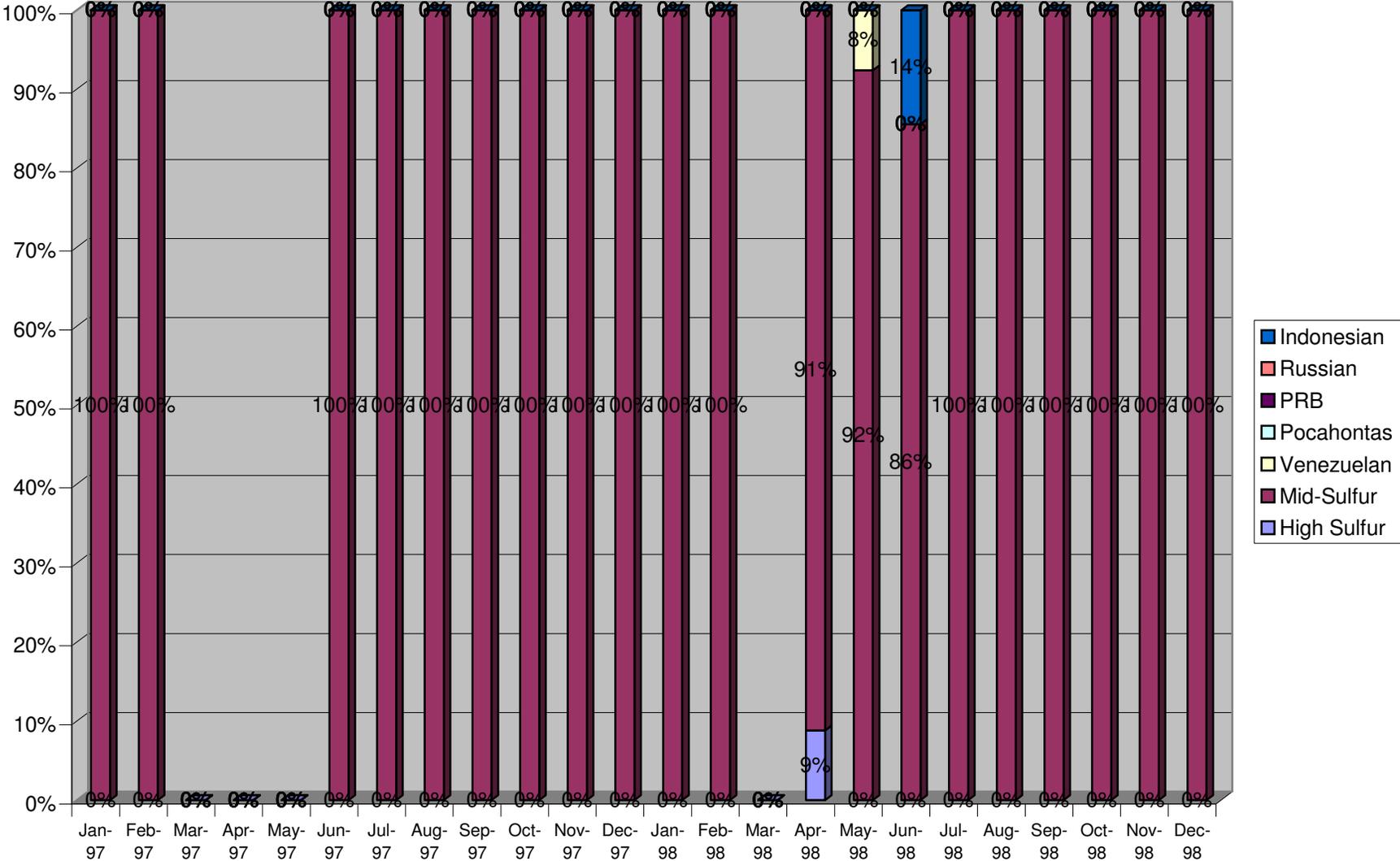
Source: PSNH submittals dated 10/27/2009 and 11/30/2009

MK1 2007 2008



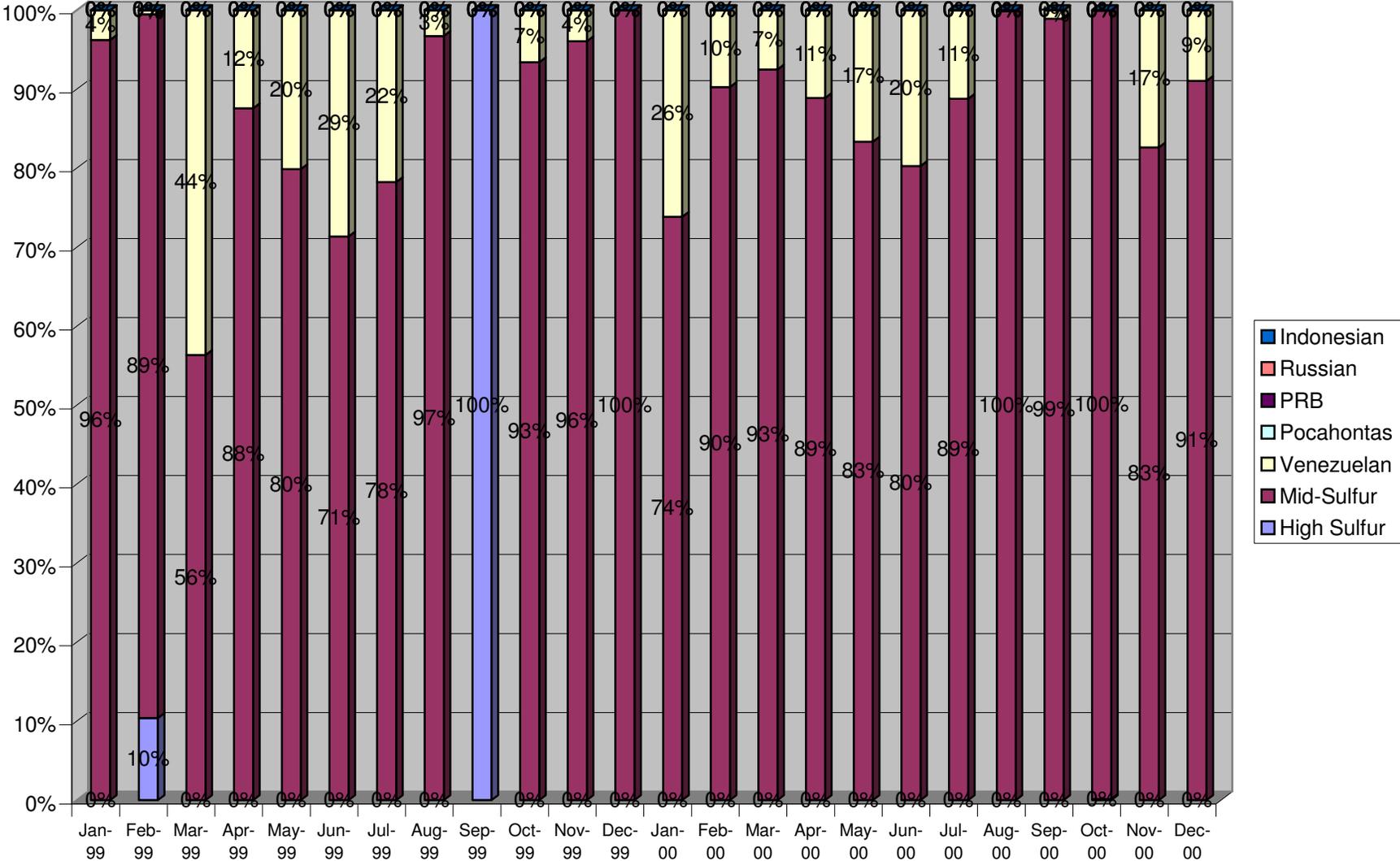
Source: PSNH submittals dated 10/27/2009 and 11/30/2009

MK2 1997 1998



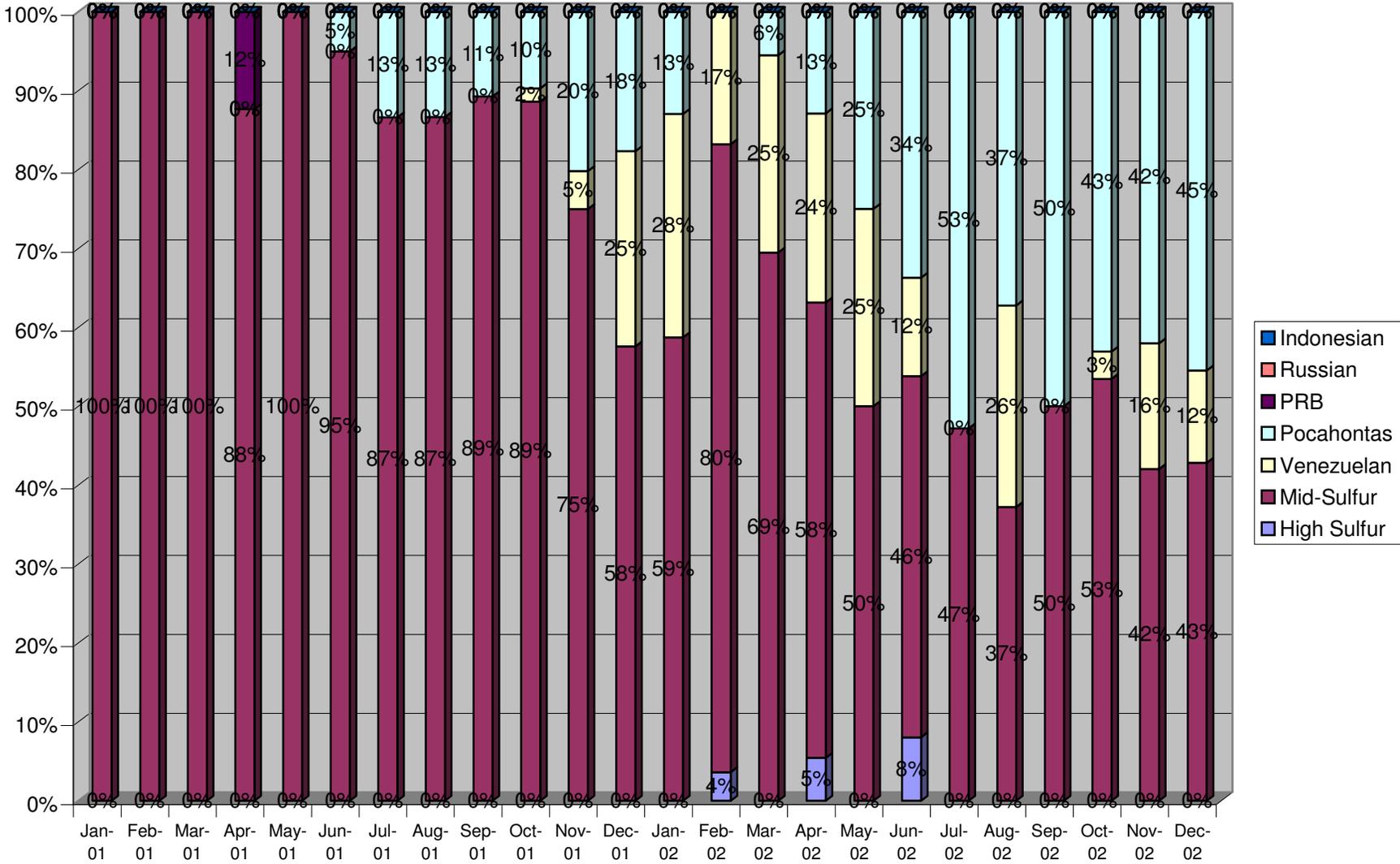
Source: PSNH submittals dated 10/27/2009 and 11/30/2009

MK2 1999 2000



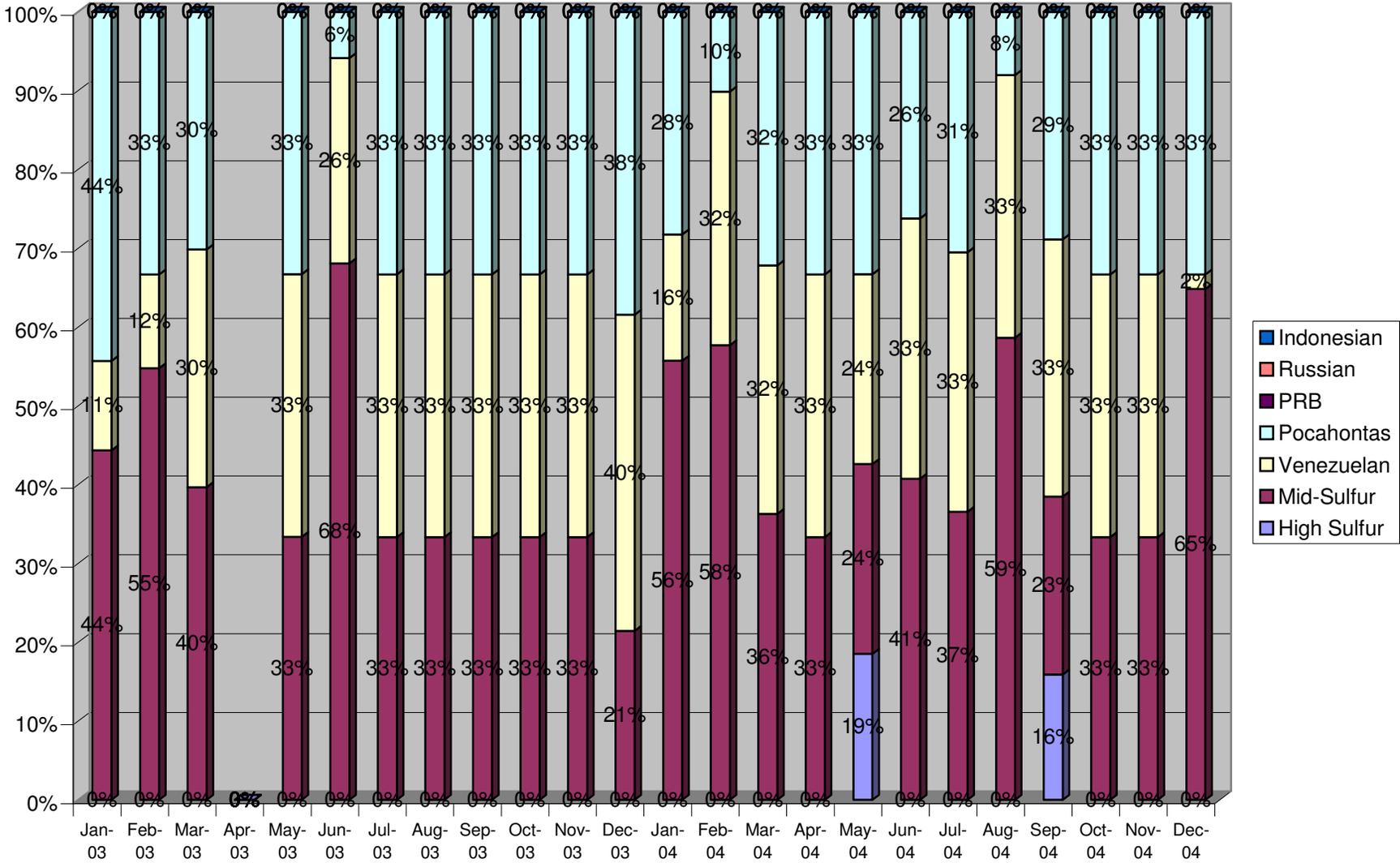
Source: PSNH submittals dated 10/27/2009 and 11/30/2009

MK2 2001 2002



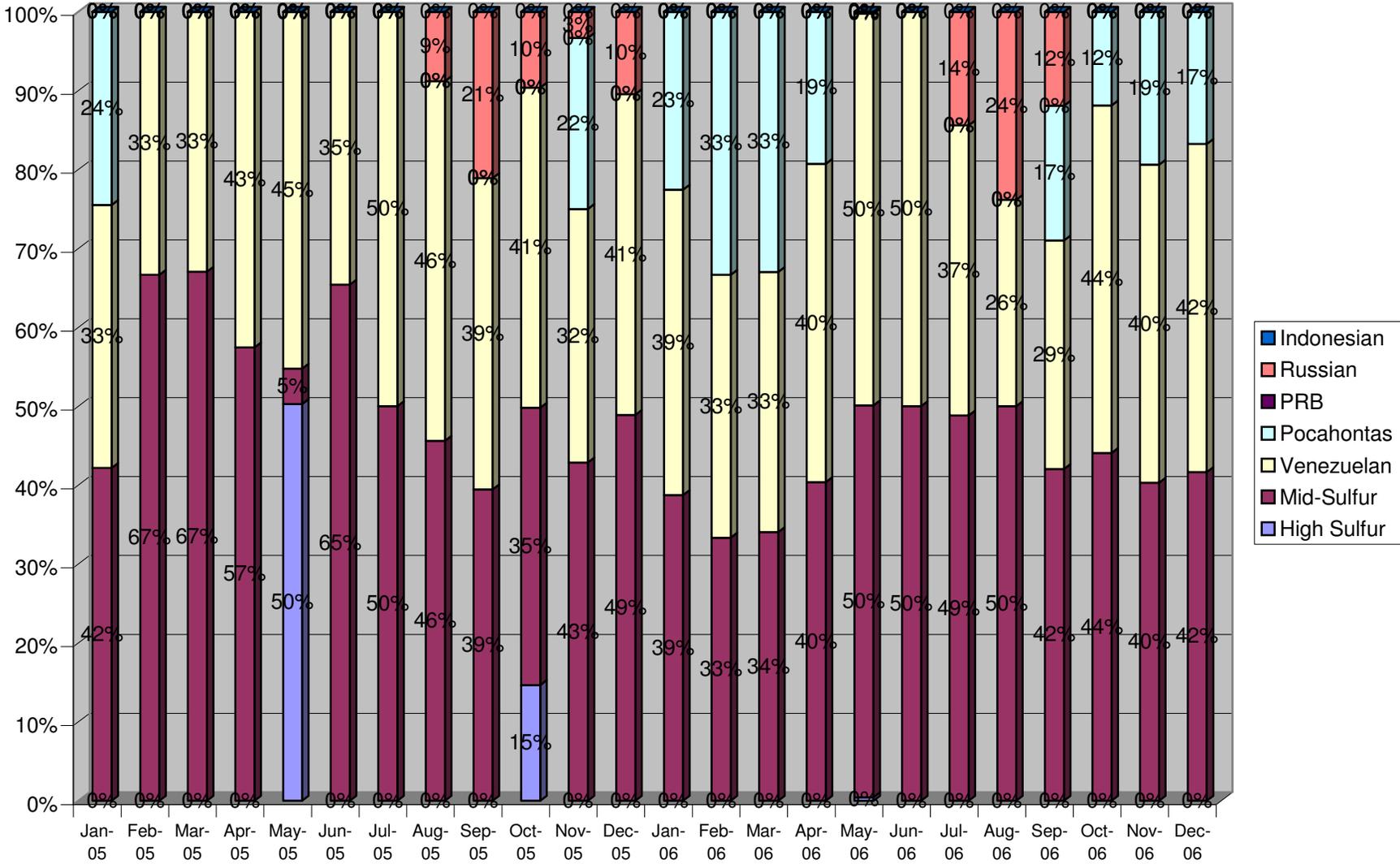
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MK2 2003 2004



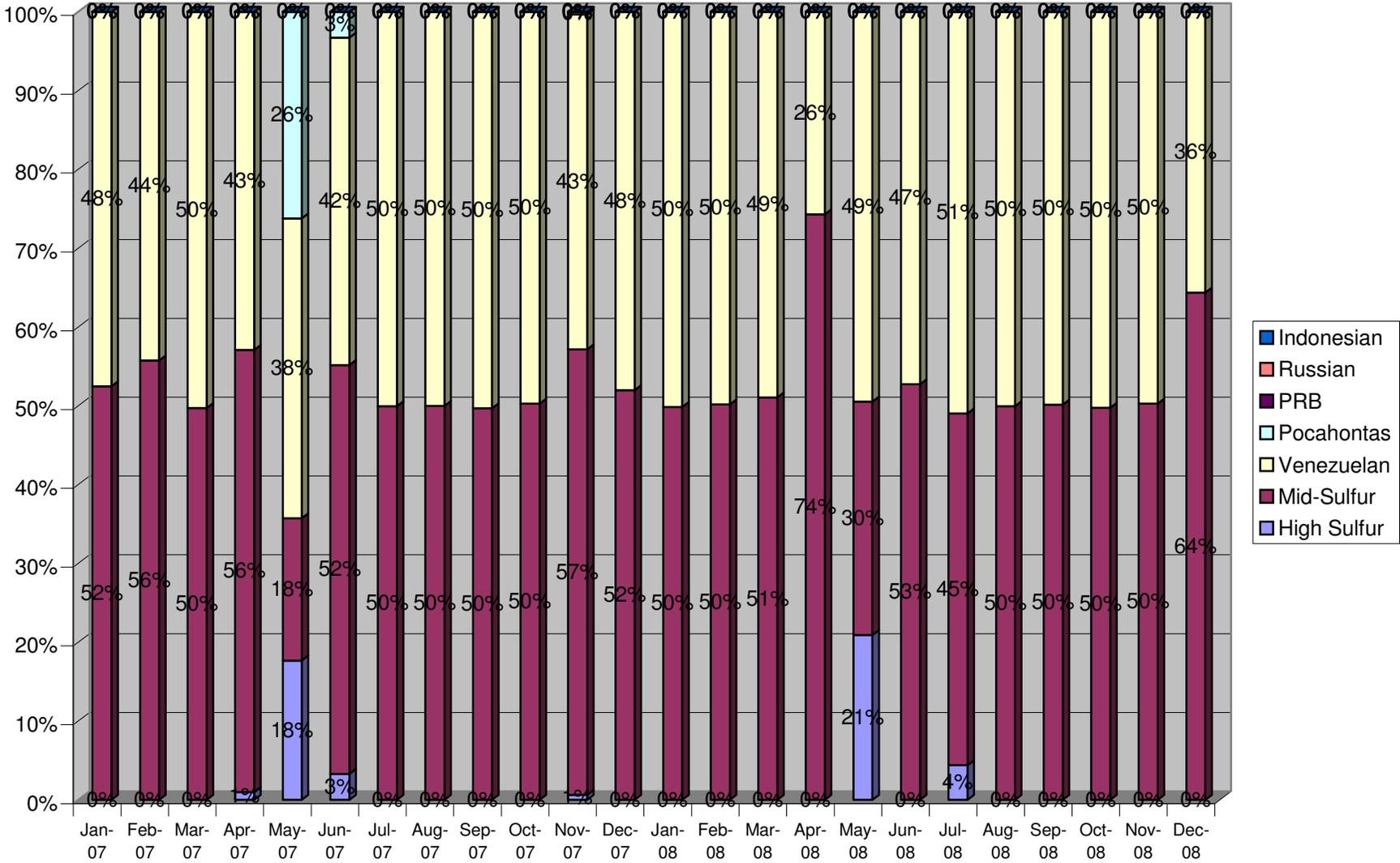
Source: PSNH submittals dated 10/27/2009 and 11/30/2009

MK2 2005 2006



Source: PSNH submittals dated 10/27/2009 and 11/30/2009

MK2 2007 2008



Source: PSNH submittals dated 10/27/2009 and 11/30/2009