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Gallup, NM 87301

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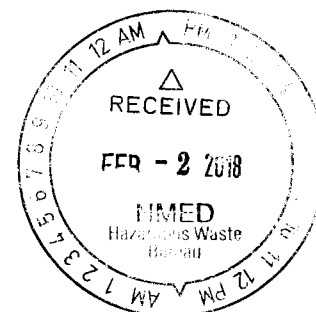
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Certified Return Receipt: # 7013 0600 0001 0294 9419

January 30, 2018

Mr. John E. Kieling, Chief
New Mexico Environmental Department
2905 Rodeo Park Drive East, Bldg 1
Santa Fe, NM 87505-6303

RE: 2018 Financial Assurance Cost Estimate
WESTERN REFINING SOUTHWEST INC, GALLUP REFINERY
EPA ID# NMD000333211



Dear Mr. Kieling:

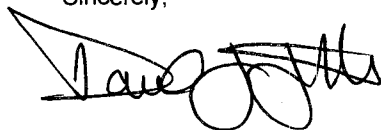
Western Refining Southwest, Inc. – Gallup Refinery submits the referenced Financial Assurance Cost Estimate. The estimate was prepared for Gallup Refinery by DiSorbo Consulting, LLC, a third-party environmental engineering company. This cost estimate includes costs to address those activities specified in the Complaint and Consent Agreement and Final Order (CAFO) (dated August 26, 2009) for implementation of a remedy for Aeration Lagoons AL-1 and AL-2 and the requirements of the RCRA Post-Closure Care Permit (“RCRA Permit”) (effective December 2, 2013). The costs estimates were prepared in accordance with 40 CFR 264.101 and substantially in compliance with the requirements of 40 CFR §264.142 and §264.144.

If you have any questions regarding Western’s responses, please do not hesitate to contact Jessica O’Brien at (505) 722-0287.

Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Sincerely,



Daniel J. Statile
Vice President Refining
Western Refining Southwest, Inc. – Gallup Refinery

Enclosure

cc: K. Van Horn NMED HWB (via e-mail)
C. Chavez OCD (via e-mail)
D. Pruner, Gallup Refinery (via e-mail)
A. Hains, Andeavor (via e-mail)

January 10, 2018

Jessica O'Brien
Environmental Supervisor – Gallup Refinery
Andeavor
92 Giant Crossing Road
Gallup, New Mexico 87301

Re: Western Refining Southwest, Inc. - Gallup Refinery
Financial Assurance Cost Estimate

Dear Ms. O'Brien:

This cost estimate includes costs to address those activities specified in the Complaint and Consent Agreement and Final Order (CAFO) (dated August 26, 2009) for implementation of a remedy for Aeration Lagoons AL-1 and AL-2 and the requirements of the RCRA Post-Closure Permit ("RCRA Permit") (effective date 12/2/2013). The initial cost estimates were prepared in accordance with 40 CFR 264.101 and substantially in compliance with the requirements of 40 CFR 264.142 and 264.144.

In addressing the requirements of the CAFO, the original 2009 cost estimate for the Aeration Lagoons (\$1,257,000) has been adjusted annually for inflation each year. The most recent update was conducted in January 2017 with an inflation adjusted estimate of \$1,383,219. To prepare the 2018 estimate, the 2017 estimate of \$1,383,219 was multiplied by an annual inflation factor of 1.02% [Implicit Price Deflator (IPD), as taken from the Bureau of Economic Analysis' Table 1.1.9; implicit price deflator for 2017 / implicit price deflator for 2016 (updated 12/21/2017) = 113.614/111.628 = 1.02%] to yield an updated estimate of \$1,410,883.

There are two separate provisions in the 2013 RCRA Permit, which require cost estimates. The first of which is Provision II.D.1 that specifies, "*The Permittee shall adjust the post-closure estimate for inflation within 60 days prior to the anniversary date of the establishment of the financial instrument used to comply with 40 CFR § 264.145.*" This provision addresses post-closure care of the Land Treatment Unit (LTU).

A revised cost estimate for post-closure care of the LTU was prepared in 2010, reflecting the significant amount of work that had been completed since issuance of the previous RCRA Post-Closure Permit in 2000. The estimated cost in 2010 was \$125,185 (see enclosed Table 1B) and it has been adjusted annually since. The most recent annual adjustment prepared in January 2017 produced an updated cost of \$136,445. Applying an annual inflation factor of 1.02 %, the 2017 estimate of \$136,445 is adjusted to \$139,173 to yield an updated estimate for 2018.

Ms. Jessica O'Brien

January 10, 2018

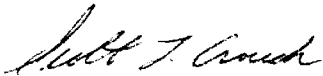
Page 2

Provision II.D.2 in the 2013 RCRA Permit required that a cost estimate be prepared as follows: *"Within 180 days of the effective date of this Permit, the Permittee shall submit to the NMED for approval a detailed written estimate, in current dollars, of the cost of hiring a third party to perform a cleanup of contaminant releases at or migrating from the Facility in accordance with this Permit (hereafter "Estimated Cost of the Work"). The initial Estimated Cost of the Work shall account for the total costs of post-closure care and monitoring the Land Treatment Unit and conducting the Facility Wide Groundwater Monitoring for a period of 20 years."* Pursuant to this requirement, a cost estimate was prepared in February 2014 for 20 years of facility-wide groundwater monitoring. The estimated cost was \$1,762,340. Pursuant to RCRA Permit Provision II.D. 3, the Estimated Cost of Work has been updated to subtract the costs of work completed during the previous calendar year and to account for changes to the Facility-Wide Ground Water Monitoring Work Plan. The Facility-Wide Ground Water Monitoring Plan - Updates for 2016 and comments received on August 22, 2016 on the 2015 updates to the Plan were used to update the Estimated Cost of Work. There have not been any subsequent approvals of updates to the Facility-Wide Ground Water Monitoring Plan, thus the previous estimate for 2017 is retained and is only adjusted for inflation. The 2017 estimate was \$2,595,847. Based on an annual inflation factor of 1.02%, the 2018 estimate is \$2,647,764. Table 1A provides a detailed explanation of the annual cost of implementing facility-wide groundwater monitoring on an annual basis.

The current total estimated cost is \$4,197,820 for addressing the Aeration Lagoons pursuant to the CAFO and implementation of the 2013 RCRA Post-Closure Permit. If there are any questions, please contact me at (512) 693-4193.

Sincerely,

DiSorbo Consulting, LLC



Scott T. Crouch, P.G.
Senior Consultant

Enclosures

cc: Allen Hains – Andeavor Refining El Paso

TABLE 1
 JANUARY 2017 COST ESTIMATE FOR RCRA POST-CLOSURE PERMIT
 WESTERN REFINING SOUTHWEST, INC. - GALLUP REFINERY

Waste Management Area	Corrective Action/Project	Investigation Costs	Remediation Costs	O&M Costs	Total Costs	Notes
RCRA Regulated Units						
Land Treatment Unit	Ground Water & Soil Monitoring	\$0	\$0	\$136,445	\$136,445	Post-closure care for LTU, Table 1B adjusted for inflation since 2010
Solid Waste Management Units (SWMU's)						
SWMU 1 – Aeration Basin	Soil investigation & potential remediation	\$0	\$0	\$0	\$0	remediation cost estimate developed Nov. 2009 pursuant to EPA CAFO; remedy not selected by NMED under the Permit
SWMU 2 - Evaporation Ponds	IWP due 1/31/2021	\$0	\$0	\$0	\$0	
SWMU 3 – Empty Container Storage Area/Bundle Cleaning Pad	IWP due 3/1/2014	\$0	\$0	\$0	\$0	IWP submitted 2/26/2014
SWMU 4 – Old Burn Pit	IWP due 6/30/2014	\$0	\$0	\$0	\$0	already capped, IWP submitted 6/24/2014 with additional sampling completed in 2016
SWMU 5 – Landfill Areas	IWP due 9/30/2014	\$0	\$0	\$0	\$0	already capped, IWP submitted 6/24/2014 with additional sampling completed in 2016
SWMU 6 – Tank Farm	IWP due 12/31/2019	\$0	\$0	\$0	\$0	Phase-Separate Hydrocarbon (PSH) recovery is conducted once a quarter at three wells & a small passive bioventing system is present, but the operations costs are minimal and no timeframe for operation is specified. No additional O&M costs are included as these actions would be conducted during other routine monitoring events.

TABLE 1
JANUARY 2017 COST ESTIMATE FOR RCRA POST-CLOSURE PERMIT
WESTERN REFINING SOUTHWEST, INC. - GALLUP REFINERY

Waste Management Area	Corrective Action/Project	Investigation Costs	Remediation Costs	O&M Costs	Total Costs	Notes
SWMU 7 – Fire Training Area	IWP due 3/31/2015	\$0	\$0	\$0	\$0	already capped, IWP submittal deferred until end of operations in this area per NMED's March 20, 2015 letter
SWMU 8 – Railroad Rack Lagoon, ditch & fan area	NFA Petition	\$0	\$0	\$0	\$0	Remediation completed and reports approved by NMED; only NFA petition and permit mod remains to be completed.
SWMU 9 – Drainage Ditch Near Inactive Landfarm	IWP due 6/30/2015	\$0	\$0	\$0	\$0	IWP submittal deferred until unspecified future date per NMED's March 20, 2015 letter
SWMU 10 – Sludge Pits	IWP due 9/20/2014	\$0	\$0	\$0	\$0	IWP submitted 9/16/2014 with investigation conducted in 2015 and 2016
SWMU 11 – Secondary Oil Skimmer	IWP due 6/31/2016	\$0	\$0	\$0	\$0	NMED granted extensions for IWP due date
SWMU 12 – Contact Wastewater Collection System ⁵	IWP due 9/30/2016	\$0	\$0	\$0	\$0	NMED granted extensions for IWP due date
SWMU 13 – Drainage Ditch between N & S Evaporation	IWP due 6/30/2016	\$0	\$0	\$0	\$0	NMED granted extensions for IWP due date
SWMU 14 – API Separator	Soil investigation & potential remediation	\$0		\$0	\$0	NMED granted extensions for Soil investigation & potential remediation date
AOC 15 (NAPIS)	IWP due 9/30/2016	\$0	\$0	\$0		NMED granted extensions for IWP due date
& AOC 16 (NAPIS Overflow Tanks) IWP	IWP due 9/30/2016	\$0	\$0	\$0	\$0	NMED granted extensions for IWP due date
AOC 17 (Railroad Loading/Unloading Facility) RA	Release Assessment due 12/31/2016	\$0	\$0	\$0	\$0	NMED granted extensions for Release Assessment due date

TABLE 1
JANUARY 2017 COST ESTIMATE FOR RCRA POST-CLOSURE PERMIT
WESTERN REFINING SOUTHWEST, INC. - GALLUP REFINERY

Waste Management Area	Corrective Action/Project	Investigation Costs	Remediation Costs	O&M Costs	Total Costs	Notes
AOC 18 (Asphalt Tank Farm) IWP	IWP due 6/30/2017	\$0	\$0	\$0	\$0	NMED granted extensions for IWP due date
AOC 19 (East Fuel Oil Loading Rack) RA	RA due 6/30/2017	\$0	\$0	\$0	\$0	NMED granted extensions for RA due date
AOC 20 (Crude Slop & Ethanol Unloading Facility) RA	RA due 9/30/2017	\$0	\$0	\$0	\$0	NMED granted extensions for RA due date
AOC 21 (Mail Loading Racks) RA	RA due 12/31/2017	\$0	\$0	\$0	\$0	NMED granted extensions for RA due date
AOC 22 (Loading Rack Additive Tank Farm) IWP	IWP due 3/31/2018	\$0	\$0	\$0	\$0	NMED granted extensions for IWP due date
AOC 23 (Retail Fuel Tank Farm) IWP	IWP due 3/31/2018	\$0	\$0	\$0	\$0	NMED granted extensions for IWP due date
AOC 24 (Crude Oil Tank Farm) IWP	IWP due 6/30/2018	\$0	\$0	\$0	\$0	NMED granted extensions for IWP due date
AOC 25 (Tank 573) RA	RA due 12/31/2016	\$0	\$0	\$0	\$0	NMED granted extensions for RA due date
AOC 26 (Process Units) RA	RA due 4/30/2021	\$0	\$0	\$0	\$0	NMED granted extensions for RA due date
AOC 27 (Boiler & Cooling Unit Area) RA	RA due 9/30/2018	\$0	\$0	\$0	\$0	NMED granted extensions for RA due date
AOC 28 (Warehouse & Maintenance Shop Area) RA	RA due 12/31/2018	\$0	\$0	\$0	\$0	NMED granted extensions for RA due date
AOC 29 (Equip. Yard & Drum Storage Area) RA	RA due 3/31/2019	\$0	\$0	\$0	\$0	NMED granted extensions for RA due date
AOC 30 (Laboratory) RA	RA due 6/30/2019	\$0	\$0	\$0	\$0	NMED granted extensions for RA due date
AOC 31 (Tank 27 & 28) IWP	IWP due 9/30/2019	\$0	\$0	\$0	\$0	NMED granted extensions for IWP due date

TABLE 1
JANUARY 2017 COST ESTIMATE FOR RCRA POST-CLOSURE PERMIT
WESTERN REFINING SOUTHWEST, INC. - GALLUP REFINERY

Waste Management Area	Corrective Action/Project	Investigation Costs	Remediation Costs	O&M Costs	Total Costs	Notes
AOC 32 (Flare & Ancillary Tanks) IWP	IWP due 12/31/2019	\$0	\$0	\$0	\$0	NMED granted extensions for IWP due date
AOC 33 (Storm Water Collection System) IWP	IWP due 3/31/2020	\$0	\$0	\$0	\$0	NMED granted extensions for IWP due date
AOC 34 (Scrap Yard) IWP	IWP due 6/30/2020	\$0	\$0	\$0	\$0	NMED granted extensions for IWP due date
Groundwater						
Site-wide	Facility-Wide Groundwater Monitoring	\$0	\$0	\$0	\$2,595,847	1 year (2017) at \$253,063/yr and 16 years (beyond 2017) at \$146,424/yr; see Table 1A
Other Costs						
Total Estimated Costs		\$0	\$0	\$136,445	\$2,732,292	

TABLE 1A (2017)
Facility-Wide Groundwater Monitoring Annual Cost Estimate
Western Refining Southwest, Inc. - Gallup Refinery

Analysis	Frequency	# of Sample Locations	# of Samples ¹	Cost/Sample	Cost per Year
Quarterly Sampling Events					
8260B	Quarterly	46	206	\$90	\$18,540
8011	Quarterly	14	65	\$50	\$3,250
8021	Quarterly	10	48	\$45	\$2,160
8015B (GRO, DRO)	Quarterly	56	246	\$90	\$22,140
8270C	Quarterly	41	180	\$220	\$39,600
Cations/Anions -General Chemistry	Quarterly	45	198	\$170	\$33,660
WQCC Metals	Quarterly	52	229	\$225	\$51,525
Cyanide, Nitrates	Quarterly	1	5	\$70	\$350
Filters			52	\$15	\$780
Level 4 Data Packet				10% of analysis	\$17,123
subtotal					\$189,128
Semi-Annual Sampling Events					
8260B	Semi-Annual	11	22	\$90	\$1,980
8270C	Semi-Annual	11	22	\$220	\$4,840
Cations/Anions	Semi-Annual	12	24	\$170	\$4,080
WQCC Metals	Semi-Annual	11	22	\$225	\$4,950
BOD / COD	Semi-Annual	11	22	\$90	\$1,980
Filters	Semi-Annual		22	\$15	\$330
Level 4 Data Packet	Semi-Annual			10% of analysis	\$1,783
subtotal					\$19,943
Annual Sampling Events					
8260B	Annual	21	24	\$90	\$2,160
8011	Annual	10	12	\$50	\$600
8015B (GRO, DRO)	Annual	20	23	\$90	\$2,070
8270C	Annual	7	8	\$220	\$1,760
Cations/Anions	Annual	18	20	\$170	\$3,400
WQCC Metals	Annual	20	22	\$225	\$4,950
Cyanide, Nitrates	Annual	7	8	\$70	\$560
BOD / COD	Annual	1	2	\$90	\$180
TDS	Annual	1	2	\$20	\$40
Filters	Annual		20	\$15	\$300
Level 4 Data Packet	Annual			10% of analysis	\$1,572
subtotal					\$17,592
Three-Year Sampling Events					
8260B	Every third year	2	0.7	\$90	\$63
8270C	Every third year	2	0.7	\$220	\$154
WQCC Metals	Every third year	2	0.7	\$225	\$158
Cyanide, Nitrates	Every third year	2	0.7	\$70	\$49
Filters	Every third year		1	\$15	\$15
Level 4 Data Packet	Every third year			10% of analysis	\$42
subtotal					\$481
Sampling Labor	Three quarterly events		10 Days, 8 hour days	\$72/hour	\$17,280
	Combined annual, one quarterly & three-year event		15 Days, 8 hour days	\$72/hour	\$8,640
subtotal					\$25,920
Annual Total					\$253,063

1 - # of Samples includes additional QA/QC samples

The sampling requirements addressed in the table are per the Facility-Wide Ground Water Monitoring Work Plan - Updates for 2016 (dated May 3, 2016) and the subsequent comments (dated August 22, 2016) NMED provided on the 2015 updates to the Monitoring Work Plan.

TABLE 1A (After 2017)
Facility-Wide Groundwater Monitoring Annual Cost Estimate
Western Refining Southwest, Inc. - Gallup Refinery

Analysis	Frequency	# of Sample Locations	# of Samples ¹	Cost/Sample	Cost per Year
Quarterly Sampling Events					
8260B	Quarterly	9	44	\$90	\$3,960
8011	Quarterly	4	22	\$50	\$1,100
8021	Quarterly	10	48	\$45	\$2,160
8015B (GRO, DRO)	Quarterly	19	84	\$90	\$7,560
8270C	Quarterly	5	22	\$220	\$4,840
Cations/Anions -General Chemistry	Quarterly	9	40	\$170	\$6,800
WQCC Metals	Quarterly	15	66	\$225	\$14,850
Cyanide, Nitrates	Quarterly	1	5	\$70	\$350
Filters			77	\$15	\$1,155
Level 4 Data Packet				10% of analysis	\$4,162
subtotal					\$46,937
Semi-Annual Sampling Events					
8260B	Semi-Annual	11	22	\$90	\$1,980
8270C	Semi-Annual	11	22	\$220	\$4,840
Cations/Anions	Semi-Annual	12	24	\$170	\$4,080
WQCC Metals	Semi-Annual	11	22	\$225	\$4,950
BOD / COD	Semi-Annual	11	22	\$90	\$1,980
Filters	Semi-Annual		22	\$15	\$330
Level 4 Data Packet	Semi-Annual			10% of analysis	\$1,783
subtotal					\$19,943
Annual Sampling Events					
8260B	Annual	58	65	\$90	\$5,850
8011	Annual	10	12	\$50	\$600
8015B (GRO, DRO)	Annual	57	64	\$90	\$5,760
8270C	Annual	43	47	\$220	\$10,340
Cations/Anions	Annual	54	59	\$170	\$10,030
WQCC Metals	Annual	57	63	\$225	\$14,175
Cyanide, Nitrates	Annual	7	8	\$70	\$560
BOD / COD	Annual	1	2	\$90	\$180
TDS	Annual	1	2	\$20	\$40
Filters	Annual		57	\$15	\$855
Level 4 Data Packet	Annual			10% of analysis	\$4,754
subtotal					\$53,144
Three-Year Sampling Events					
8260B	Every third year	2	0.7	\$90	\$63
8270C	Every third year	2	0.7	\$220	\$154
WQCC Metals	Every third year	2	0.7	\$225	\$158
Cyanide, Nitrates	Every third year	2	0.7	\$70	\$49
Filters	Every third year		1	\$15	\$15
Level 4 Data Packet	Every third year			10% of analysis	\$42
subtotal					\$481
Sampling Labor	Three quarterly events		10 Days, 8 hour days	\$72/hour	\$17,280
	Combined annual, one quarterly & three-year event		15 Days, 8 hour days	\$72/hour	\$8,640
subtotal					\$25,920
Annual Total					\$146,424

1 - # of Samples includes additional QA/QC samples

The sampling requirements addressed in the table are per the Facility-Wide Ground Water Monitoring Work Plan - Updates for 2016 (dated May 3, 2016) and the subsequent comments (dated August 22, 2016) NMED provided on the 2015 updates to the Monitoring Work Plan.

TABLE 1B
Land Treatment Unit Detailed Cost Estimate
Western Refining Southwest, Inc. - Gallup Refinery

Activity	Cost Estimate in 2000 Part B Permit Application			Updated 2010 Cost Estimate				
	Material	Cost Frequency (over 30 years)	Estimated Cost	Material	Cost Frequency (remaining 20 years)	Revised Costs	Inflation Adjustment ³	2010 Estimated Costs
MONITORING								
Sample by Zone								
ZOI	4 samples at \$1,450	3	\$17,400	4 samples at \$709 ¹	2	\$5,672	0	\$5,672
Treatment Zone	4 samples at \$1,450	3	\$17,400	4 samples at \$709 ¹	2	\$5,672	0	\$5,672
Chinle Slope Wash	1 sample at \$1,650	8	\$13,200	1 sample at \$834 ²	2	\$1,668	0	\$1,668
Sonsela	4 samples at \$1,650	8	\$52,800	4 samples at \$834 ²	2	\$6,672	0	\$6,672
Sample QC	25% of \$100,800		\$25,200	25% of \$19,684		\$4,921	0	\$4,921
Mobilization/labor								
ZOI & Treatment Zone	3 events at \$1,000/event		\$3,000	2 events at \$1,000/event		\$2,000	\$500.80	\$2,501
Chinle Slope Wash & Sonsela	8 events at \$2,000/event		\$16,000	2 events at \$2,000/event		\$4,000	\$1,001.60	\$5,002
COVER ESTABLISHMENT								
Filed Technician	\$10,000		\$10,000	completed		\$0		\$0
Microtox	\$300 per test	9	\$2,700	completed		\$0		\$0
Soil Amendments	352,000 ft ² at 0.02/ft ²		\$7,040	completed		\$0		\$0
Establish Vegetative Cover								
Top Soil	7.8 acres at \$2,000/acre		\$15,600	completed		\$0		\$0
Level LTU	7.8 acres at \$950/acre		\$7,410	completed		\$0		\$0
Plant Seed	7.8 acres at \$750/acre		\$5,850	completed		\$0		\$0
Water	1140 Mgal. At \$1/Mgal		\$1,140	completed		\$0		\$0
Routine Inspection, Maintenance & Repair								
Site Inspection	Weekly inspection		\$6,000	Weekly inspection (remaining 20 years)		\$4,000	\$1,001.60	\$5,002
Security Device	\$100 annually		\$3,000	\$100 annually		\$2,000	\$500.80	\$2,501
Run-on/Run-off	\$1,000 annually to maintain perimeter berm		\$30,000	\$1,000 annually to maintain perimeter berm		\$20,000	\$5,008.00	\$25,008
Prepare Certification								
Certify LTU Closure	120 hours at \$125/hour		\$15,000	120 hours at \$125/hour		\$15,000	\$3,756.00	\$18,756
Notice in Deed	6 hours at \$150/hour		\$900	6 hours at \$150/hour		\$900	\$225.36	\$1,125
Certify Final Closure	120 hours at \$125/hour		\$15,000	120 hours at \$125/hour		\$15,000	\$3,756.00	\$18,756
Notice in Deed	6 hours at \$150/hour		\$900	6 hours at \$150/hour		\$900	\$225.36	\$1,125
Total Task			\$265,540					\$104,381
Gallup Overhead		10%	\$26,554					\$10,402
Contingency		10%	\$26,554					\$10,402
TOTAL			\$371,756					\$125,185

Mgal. = million gallons

ZOI = Zone of Incorporation

1 - 8260 @ \$120, 8270 @ \$280, 8015 @ \$80, metals @ \$229

2 - 8260 @ \$120, 8270 @ \$280, 8015 @ \$80, metals @ \$229, pH @ \$35, cation/anions @ \$90

3- Inflation adjustment for costs in the original 2000 estimate. Annual inflation adjustment for years 2001 through 2010 based on implicit price deflator of US Gross National Product of most recent year divided by previous year; 2001=2.06%, 2002=2.17%, 2003=1.3%, 2004=1.67%, 2005=2.37%, 2006=3.03%, 2007=2.94%, 2008=3.95%, 2009=2.18%, 2010=0.96%; cumulative adjustment of 25.04%