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Volume during the first quarter of 2000 fell dramatically from its first quarter 1999 level, although it did top the levels seen in 1997 and 1998 (see chart on page 2). Not surprisingly, in the wake of lower volume, price fell during the quarter, a turnaround from the trend in the first quarter of last year as shown in the chart below.

This low first quarter volume was really just an extension of the decline in demand that began last year. At the beginning of the year, spot demand was strong but long-term contract demand was weak. By the middle of the year, spot volume remained strong, while the term market started to pick up. By the fourth quarter, the pendulum started to swing back in favor of long-term contracting as multiple utilities began negotiating medium- to long-term deals off market. This trend has continued into the first quarter of this year, as long-term volume has continued to steadily rise and spot volumes have dropped off.

Below is a review of the spot contracting activity during the first quarter and an outlook for next quarter.

**First Quarter Recap** – The first quarter saw a total of eleven transactions involving 4 million pounds U<sub>3</sub>O<sub>8</sub> equivalent (see charts and tables on pages 2 through 4). About a third of the volume was completed without the use of the formal spot RFQ process.

Of the quarter's volume, 2.2 million pounds were in the form of U<sub>3</sub>O<sub>8</sub>, while UF<sub>6</sub> and EUP each accounted for about 900,000 pounds U<sub>3</sub>O<sub>8</sub>e. Utilities were the buyers in all of the reported transactions thus far, with U.S. utilities accounting for 62% of the volume pur-

chased. As for sellers, an opposite breakdown shows that non-U.S. sellers supplied about 60% of the volume sold. Accounting for more than half of the volume, discretionary purchases picked up considerably as prices continued to slip during the quarter. Consistent with this increase in discretionary activity, the average leadtime before delivery also increased slightly to 7.3 months.

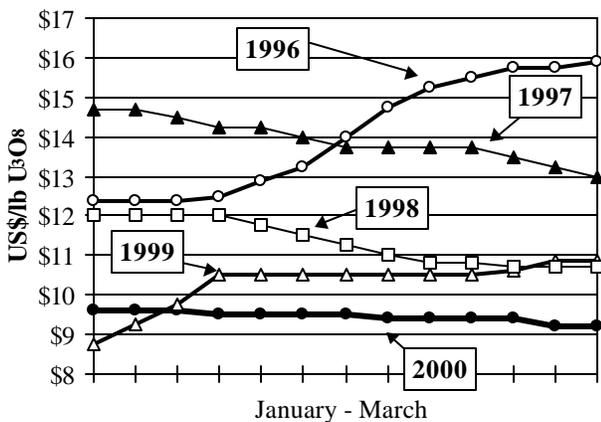
Spot prices have continued their downward trend that began in May of last year. Restricted prices started at \$9.60 in January and trickled down each month to end March at \$9.20, falling a total of \$0.40 per pound for the quarter. The CIS price also declined \$0.30 during the quarter, falling from \$7.60 to \$7.30. As shown in the chart below, restricted prices exhibited less movement this past quarter than they have in any of the first quarters over the past five years. This chart also shows that prices moved up during the first quarter in only two of the last five years, 1996 and 1999. Both of these years also had a fairly sizeable volume reported during the quarter (see the chart on page 2).

**Second Quarter Outlook** – The second quarter is shaping up to be a replay of the last quarter, at least for the first part of the quarter. As shown in this week's price update, spot prices are still declining with little strengthening indicated for the near term. Suppliers appear eager to capture demand just as soon as it enters the market. Second quarter volume is currently expected to approach five million pounds. However, a third of this total is dependent on two larger EUP procurements, and if these do not materialize, volume will be less.

In addition, Kazak EUP could be blessed for U.S. import during the quarter, which could potentially lead to additional pressure if this source of supply is brought into the U.S. market.

Finally, a number of utilities have indicated their desire to purchase material on the spot market this year, taking advantage of low prices. However, remaining uncovered demand for 2000 is very limited. With delivery leadtimes continuing to increase, utilities will now likely turn their attention to filling uncovered needs in 2001 instead of waiting until the latter half of this year when prices could be stronger. Such action would help boost near-term demand and possibly stem the slide in prices.

**Comparison of 1<sup>st</sup> Quarter Spot Prices**



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**Weekly  
Ux Prices**

U<sub>3</sub>O<sub>8</sub>  
**\$9.10**  
(-0.10)

CIS U<sub>3</sub>O<sub>8</sub>  
**\$7.20**  
(-0.10)

# NEWS BRIEFS

**Entergy wins out over Dominion**—On March 28, the New York Power Authority Board of Trustees approved the sale of Indian Point 3 and James A. FitzPatrick nuclear power plants to Entergy Corporation for \$967 million. The price, which represents the largest privatization of state assets in New York history, includes \$636 million for the plants, nearly \$171 million for fuel on hand and ordered, \$92 million for a guaranteed portion of decommissioning expenses, and \$68 million reflecting NYPA's commitment to purchase additional power from FitzPatrick. The payment of \$536 per kilowatt is nearly four times greater than the previous high for a nuclear plant transaction and comparable to those for recent sales of fossil-fueled power plants.

Entergy will make an initial payment of \$50 million for the plants, followed by seven annual installments of \$83.7 million. The fuel payments will be made in seven annual installments of \$24.4 million. Entergy will also make eight annual payments of \$11.5 million to reduce NYPA's decommissioning obligation. NYPA will retain the plant's decommissioning funds, valued at \$630 million, and transfer the money to Entergy at time of decommissioning. Additionally, Entergy has proposed making eight annual cash payments of \$8.5 million, to-

**— Industry Calendar —**

- **April 2-5** – NEI's Fuel Cycle 2000 will be held in Memphis, Tennessee.
- **May 8-9** – The Utility Nuclear Fuel Economic Group (UNFEG) 2000 meeting will be hosted by PP&L Inc. in Allentown, PA.
- **May 10-12** – The Uranium Institute Mid-term Meeting will be held in Strasbourg, France.
- **June 11-13** – The WNFEM Annual Meeting in 2000 will be in Gotenborg, Sweden.
- **Aug. 30-Sep. 1** – The Uranium Institute 25<sup>th</sup> Annual Symposium held in London, England.
- **September 24-27** – NEI's International Uranium Fuel Seminar will be held in Olympic Valley, CA.
- **November** – The All-Russian Scientific-Research Institute of Mineral Resources (VIMS) will host the symposium "Uranium on the Verge of Centuries: Resources, Production, Demand" in Russia.

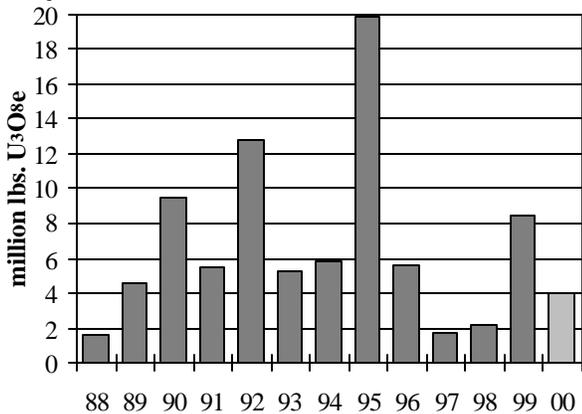
taling \$68 million, reflecting NYPA's commitment to additional purchases of power from FitzPatrick.

NYPA stated that although Dominion Resources had submitted a higher price for the plants and fuel in present value dollars, the Entergy decommissioning payments and several other factors made the overall value of the Entergy proposal far superior.

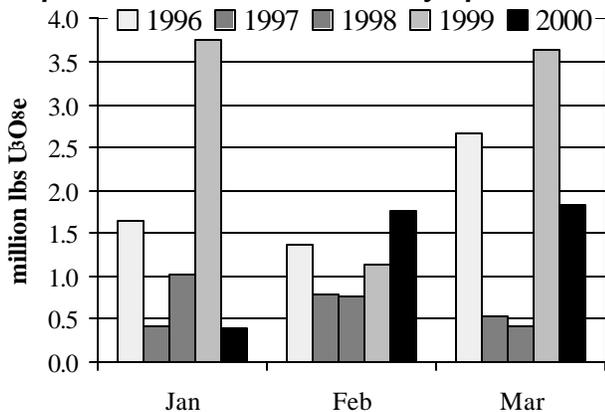
**Strikes threaten Cogema's Niger U mines**—Employees at Niger's COMINAK uranium company are threatening to strike in sympathy to fellow workers at the SOMAIR uranium company, who have been striking for over 45 days. Sources indicate that SOMAIR's 667 employees at the Arlit mine are striking in pursuit of higher pay and production bonuses. Niger's Mining Minister Yahaya Baare has asked the workers to return to work because of the negative effects the loss of production will have on the economy, but so far it has fallen on deaf ears. It is unknown what effect the strike will have on Niger production in 2000. In 1999, Akouta production was 4.99 million pounds U<sub>3</sub>O<sub>8</sub> and Arlit production was 2.60 million pounds U<sub>3</sub>O<sub>8</sub>.

**Russian parliament calls for review of HEU deal**—On March 29, the Federation Council upper house of parliament called for reconsideration of the U.S.-Russian HEU deal and voted to draft an appeal to President-elect Vladimir Putin to ask the Russian government to review the expediency of the deal as well as specify its implementation procedure. The council

**Comparison of 1<sup>st</sup> Quarter Volumes, 1988-2000**



**Comparison of 1<sup>st</sup> Quarter Monthly Spot Volumes**



## NEWS BRIEFS cont...

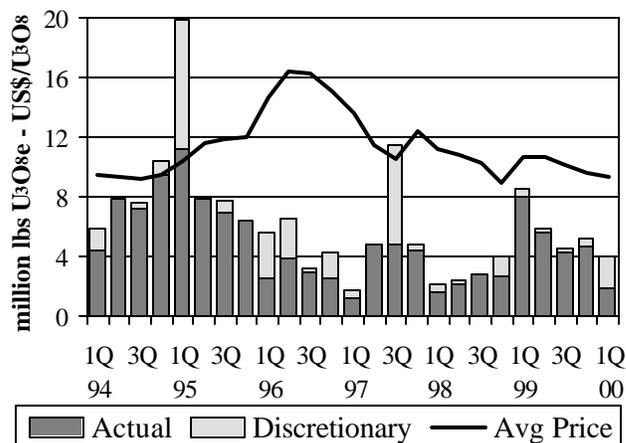
wants to re-evaluate the deal since a lot of political and economic changes have occurred since the agreement was signed in 1993. So far, about 80 metric tons of weapons-grade uranium has been processed, which is about 15 percent of Russia's commitment of 500 tons to the U.S. In support of the HEU deal, Russian Deputy Atomic Energy Minister Vladimir Vinogradov stated the reason why Russia has only received US\$1 billion of \$12 billion since 1994 was due to the time needed to master the technology for processing high enriched uranium at a larger capacity. Russia's design capacity has now increased to 30 tons per year and the country expects to receive \$550-\$600 million this year.

### British govt. delays BNFL privatization to at least late 2002; Sellafield's future in doubt

Britain's Department of Trade and Industry announced March 29 that BNFL's privatization could not be pushed through until late 2002 at the earliest and may not occur at all. Industry Minister Helen Lidell said in a written answer to parliament, "Recent events at BNFL have clearly been a setback for the company." A day later, BNFL said it would try to persuade the government to lower the performance targets it must meet before ministers approve a partial sell-off of the company. Chairman Hugh Collum told the cross-party Trade and Industry Select Committee that progress against the six key targets had been poor, and that the company would struggle to meet any of them this year.

Meanwhile, Sellafield's Director, Brian Watson, has

Quarterly Spot Volume vs. Ux Average Price



acknowledged the future of the reprocessing plant is in doubt. Unions have called for the appointment of an independent safety "tsar" to oversee the industry, and management could support such a move according to Watson. Several European countries are pressing for the closure of Sellafield at an environment conference in June.

### Cogema uncovers mistake in quality control of Mox fuel at Cadarache; fuel deemed OK

The internal audit system of Cogema's Cadarache plant detected a fault in software designed to record the secondary tests performed on statistical samples of Mox fuel pellets. The fault surrounded a few dozen pellets of the seven million produced annually. Upon identifying

Spot Market Statistics (million lbs U <sub>3</sub> O <sub>8</sub> equivalent)																
	1997					1998					1999					2000
	1Q	2Q	3Q	4Q	Total	1Q	2Q	3Q	4Q	Total	1Q	2Q	3Q	4Q	Total	1Q
<b>Total Volume</b>	1.7	4.8	11.4	4.8	22.7	2.2	2.4	2.8	4.0	11.4	8.5	5.9	4.6	5.2	24.2	4.0
# Transactions	8	16	31	18	73	10	11	16	11	48	27	23	11	12	73	11
Avg. Leadtime (mths)	4.3	7.0	4.2	4.5	4.9	4.1	5.6	5.0	6.7	5.4	8.7	6.9	6.5	6.9	7.5	7.3
<b>Form</b>																
U <sub>3</sub> O <sub>8</sub> Total	0.9	3.4	5.8	3.5	13.6	0.9	2.1	2.3	1.9	7.2	5.8	2.4	2.3	3.0	13.5	2.2
UF <sub>6</sub> Total	0.3	1.4	5.5	1.3	8.5	0.6	0.1	0.4	2.1	3.2	1.9	2.5	1.6	0	6.0	0.9
EUP Total	0.5	0	0.1	0	0.6	0.7	0.2	0.1	0	1.0	0.8	1.0	0.7	2.2	4.7	0.9
<b>Origin</b>																
Non-CIS	0.7	3.3	7.8	3.6	15.4	1.6	1.3	2.1	3.2	8.2	5.1	3.7	3.4	2.7	14.9	3.6
CIS	1.0	1.5	3.6	1.2	7.3	0.6	1.1	0.7	0.8	3.2	3.4	2.2	1.2	2.5	9.3	0.4
<b>Need</b>																
Actual	1.1	4.8	4.8	4.3	15.0	1.6	2.2	2.8	2.6	9.2	8.0	5.6	4.3	4.6	22.5	1.9
Discretionary	0.6	0	6.6	0.5	7.7	0.6	0.2	0	1.4	2.2	0.5	0.3	0.3	0.6	1.7	2.1
<b>Buyers</b>																
U.S.	0.1	3.3	5.6	1.4	10.4	0.9	1.3	1.8	2.6	6.6	4.1	2.2	3.3	2.5	12.1	2.5
Non-U.S.	1.6	1.5	5.8	3.4	12.3	1.3	0.6	0.7	1.4	4.0	4.4	3.7	1.3	2.7	12.1	1.5
<b>Sellers</b>																
U.S.	0.4	2.5	5.0	3.1	11.0	1.2	1.1	0.7	1.9	4.9	1.1	0.3	2.5	2.7	6.6	1.6
Non-U.S.	1.3	2.3	6.4	1.7	11.7	1.0	0.8	1.8	2.1	5.7	7.4	5.6	2.1	2.5	17.6	2.4

## NEWS BRIEFS cont...

the error, Cogema quickly advised its German clients, asking them to perform check audits on the spot. Bayernwerk said the error affected a batch of fuel sent to its Isar 2 reactor in December, but a review of the suspect pellets revealed that they have been fabricated correctly according to specifications and were in perfect technical condition. However, Siemens has still sent officials to France to conduct an audit of Cogema's Mox fuel production. The state of lower Saxony, concerned about possible problems at its Unterweser and Grohnde nuclear plants, has also sent an investigator to Cada-rache.

**South Africa ponders new PBMR**—In its struggle to reduce the South African unemployment rate of more than 30 percent, the government is considering a plan to create 200,000 jobs and export earnings from the development of Eskom's Pebble Bed Modular Reactor (PBMR). However, even before the plan has received cabinet approval, environmentalists and business analysts have attacked Eskom's PBMR program as "financially risky and technically difficult." They contend the reactors are unnecessary given South Africa's surplus generating capacity and access to other power sources.

Eskom purchased the technology for the high-temperature, gas-cooled reactors in the 1990's from HTR, a joint venture between Siemens and ABB. Eskom has already spent more than R100 million (US\$15.4 million) on research and development, with plans to export the 110 MW units, which cost around US\$100 million, starting in 2005. Eskom executives believe they could export as many as 30 units annually within 10 years. The UK, China, Indonesia, Morocco, Egypt and Tunisia have thus far expressed interest in possibly purchasing PBRs. Construction of the initial "reference module" could begin as early as next year.

Eskom is completing the feasibility study and plans to discuss the project with the cabinet in the next month. Then the government will decide whether to proceed with public consultations and an environmental impact assessment. The Council for Nuclear Safety also has to approve the project.

**JCO stripped of Tokai operating license**—Last Tuesday, the Japanese government revoked the operating license of JCO Co.'s uranium processing plant in Tokaimura for causing the country's worst nuclear accident. Prime Minister Keizo Obuchi signed the letter and called JCO's responsibility for the accident "extremely serious," stating that it deserved to be stripped of the license. The penalty was effective immediately. In February, the government announced it would repeal JCO's operating license, giving the

company a chance to appeal the decision at a hearing earlier this month. However, JCO opted not to appeal.

### Ux Month-End Spot U<sub>3</sub>O<sub>8</sub> Prices, Volume, Leadtime and Number of Transactions

Month	Ux Price		Volume	Average	# of Trans
	U <sub>3</sub> O <sub>8</sub>	CIS	(mill lbs U <sub>3</sub> O <sub>8</sub> e)	Leadtime Months	
Apr '99	\$10.85	\$8.50	1.9	7.1	7
May	\$10.65	\$8.50	1.5	10.0	5
Jun	\$10.40	\$8.40	2.5	5.3	11
Jul	\$10.30	\$8.20	1.1	5.0	2
Aug	\$10.10	\$8.20	2.8	8.9	6
Sep	\$9.90	\$8.20	0.6	2.7	3
Oct	\$9.70	\$8.00	3.1	7.0	7
Nov	\$9.70	\$7.75	1.4	7.3	3
Dec	\$9.60	\$7.60	0.7	6.0	2
Jan '00	\$9.50	\$7.50	0.4	8.0	2
Feb	\$9.40	\$7.40	1.8	7.3	5
Mar	\$9.20	\$7.30	1.9	7.0	4

#### Ux Price Definitions

The Ux Prices indicate, subject to the terms listed, the most competitive spot offers available for the respective product or service, of which The Uranium Exchange Company (Ux) is aware. The **Ux U<sub>3</sub>O<sub>8</sub>** price includes conditions for quantity, delivery timeframe, origin and location considerations while the **Ux CIS U<sub>3</sub>O<sub>8</sub>** price is the most competitive price for deliveries up to six months forward without regard to specific quantity or location. Both U<sub>3</sub>O<sub>8</sub> prices are published weekly. The **Ux Conversion** price considers spot offers for delivery up to twelve months forward. The **Ux UF<sub>6</sub>** value represents the sum of the conversion and U<sub>3</sub>O<sub>8</sub> components as discussed above and, therefore, does not necessarily represent the most competitive UF<sub>6</sub> offers available. The **Ux SWU** price considers spot offers for deliveries up to twelve months forward. The Conversion, UF<sub>6</sub> and SWU prices are published the last Monday of each month.

The Ux Prices represent neither an offer to sell nor a bid to buy the products or services listed.

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**The Ux Consulting Company, LLC**  
**10927 Crabapple Road, Suite 201**  
**Roswell, GA 30075-5825**

Phone: **(770) 642-7745**  
 Fax: **(770) 643-2954**

Internet: **http://www.uxc.com**

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# THE MARKET

**Uranium**—Downward pressure remains in the market as the number of new market requests continues to be limited. Offers were submitted last week to a U.S. utility seeking about 350,000 pounds U<sub>3</sub>O<sub>8</sub>e as UF<sub>6</sub>. Another U.S. utility is reported to have made its decision regarding a sizeable EUP request. The continued lull in demand and apprehension on the part of sellers has led to a further weakening of spot prices. This week's Ux U<sub>3</sub>O<sub>8</sub> Price has once again fallen \$0.10, and now stands at \$9.10 per pound. The Ux CIS U<sub>3</sub>O<sub>8</sub> Price also fell \$0.10 to \$7.20 per pound.

In reviewing month-end prices, we find that the restricted price has continued its downward trend evidenced each month this year. The Ux U<sub>3</sub>O<sub>8</sub> Price fell \$0.20 during March to end the month at \$9.20 per pound. The TradeTech restricted price also fell, ending the month at \$9.20. The Nukem price range dropped to \$9.10-\$9.30, while the NuclearFuel price range in effect at the end of the month, tightened and fell to \$8.80-\$9.20 per pound. The resulting restricted industry average price (IAP) declined to \$0.19 to end the month at \$9.15 per pound.

The unrestricted prices also weakened during the month. The Ux CIS U<sub>3</sub>O<sub>8</sub> Price dropped \$0.10 to \$7.30 per pound. The TradeTech unrestricted price ended at \$7.25, down \$0.25. The Nukem price range fell considerably to \$7.25-\$7.40 from \$7.60-\$7.70. The Nuclear-

Fuel price range declined to \$6.90-\$7.40. The resulting unrestricted IAP dropped \$0.24 to \$7.26 per pound.

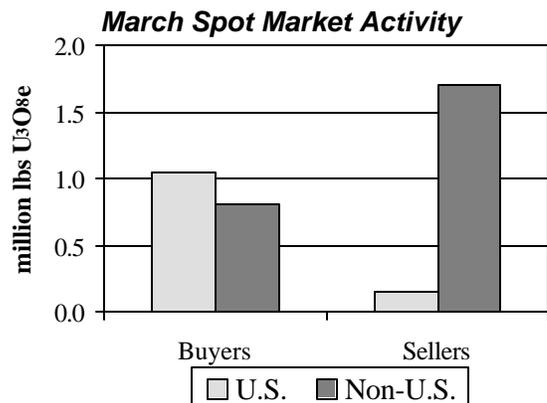
**Conversion**—During the month, four spot transactions – three for conversion services and one for EUP – were reported, involving about 750,000 kgU as UF<sub>6</sub>. One utility remains active with a 135 MTU request for UF<sub>6</sub>. Spot conversion prices fared a little better during the month, if you consider leveling out a good sign. The Ux Conversion Price and the lower end of the Nukem price range remained unchanged for the month at \$2.45 per kgU. The TradeTech North American price ended at \$2.45, down \$0.10. The North American IAP is now \$2.45. The European IAP moved up slightly to \$3.63 as the TradeTech European price increased \$0.25 to \$3.75 per kgU.

**Enrichment**—Although there has been talk of aggressive sub-\$80 per SWU offers, spot indicators saw only slight changes last month. The Nukem price range broke the \$80 barrier as it fell \$1 to \$78-\$79. The TradeTech restricted price also fell \$1 to 80 per SWU. The resulting IAP's slipped to \$79.67 and \$78.67 for restricted and unrestricted supplies, respectively.

Ux Spot Prices	
<b>Weekly (4/3/00)</b>	
<b>U<sub>3</sub>O<sub>8</sub></b>	<b>\$9.10</b>
Quantities: 3-500,000	
Delivery: 6 months	
Origin/Location:	
Open/U.S. convertor	
Non-CIS/All others	
Matched/Any location	
<b>CIS U<sub>3</sub>O<sub>8</sub></b>	<b>\$7.20</b>

Industry Spot Prices									
	NuclearFuel		NUKEM		TRADE TECH	Ux	Avg.		
	Low	High	Low	High					
<b>Weekly (4/3/00)</b>									
U <sub>3</sub> O <sub>8</sub> (\$/lb)	(4/3)				(3/31)				
Restricted	8.70	9.20	—	—	9.20	9.10	9.08		
Non-restr.	6.90	7.30	—	—	7.25	7.20	7.18		
<b>Month-end (3/31/00)</b>									
U <sub>3</sub> O <sub>8</sub> (\$/lb)	(3/20)					(3/27)			
Restricted	8.80	9.20	9.10	9.30	9.20	9.20	9.15		
Non-restr.	6.90	7.40	7.25	7.40	7.25	7.30	7.26		
Conv. (\$/kgU)									
N.American	—	—	2.45	—	2.45	2.45	2.45		
European	—	—	—	3.50	3.75	—	3.63		
UF <sub>6</sub> (\$/kgU)									
Restricted	—	—	—	—	26.50	26.49	26.50		
Non-restr.	—	—	—	—	22.70	21.52	22.11		
SWU (\$)									
Restricted	—	—	—	79.00	80.00	80.00	79.67		
Non-restr.	—	—	78.00	—	79.00	79.00	78.67		

*Note: Definitions of these prices vary among companies. They are listed strictly for comparison purposes and are in U.S. dollars. Nukem's Conversion and SWU price shows limits on their price range.*



### Redneck Medical Terms

- Impotent – Distinguished, well known.
- Benign – The year after you be eight.
- Bacteria – Back door to the cafeteria.
- Artery – The study of paintings.
- Cauterize – Made eye contact with her.
- Pap Smear – A fatherhood test.
- Labor Pain – Getting hurt at work.
- Hangnail – What you hang your coat on.
- Nitrates – Cheaper than day rates.
- Fester – Quicker than someone else.
- Morbid – A higher offer than I bid.
- Pelvis – Second cousin to Elvis.
- Enema – Not a friend.
- Fibula – A small lie.
- Tablet – A small table.
- Rectum – Almost killed him.
- Tumor – More than one.
- Urine – Opposite of your out.
- Colic – A sheep dog.
- Dilate – To live long.
- Coma – A punctuation mark.
- Secretion – Hiding something.
- Seizure – A Roman emperor.
- Varicose – Nearby.