UNIVERSITY OF NEW MEXICO REACTOR FACILITY LICENSE NO. R-102 DOCKET NO. 50-252

LICENSE RENEWAL APPLICATION

SAFETY ANALYSIS REPORT, TECHNICAL SPECIFICATIONS, ENVIRONMENTAL CONSIDERATIONS, AND OPERATOR REQUALIFICATION PROGRAM

REDACTED VERSION*

SECURITY-RELATED INFORMATION REMOVED

*REDACTED TEXT AND FIGURES BLACKED OUR OR DENOTED BY BRACKETS



The University of New Mexico

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February 21, 2007

U.S. Nuclear Regulatory Commission Document Control Desk Washington, D.C, 20555

Dear Sirs:

The attached document is an application for renewal of University of New Mexico's AGN-201 reactor facility license Docket # 50-252, License # R102. The current reactor license expires at midnight on March 24, 2007.

The Department of Chemical and Nuclear Engineering and the School of Engineering at the University of New Mexico are technically and financially qualified to continue to operate the AGN-201 reactor in accordance with the applicable USNRC rules and regulations. The applicant is a major State educational institution in New Mexico; its principal business is teaching, research, and extension work within the fields of study offered.

If you have any questions regarding the details of the application for license renewal, please contact Dr. Anil Prinja (Reactor Administrator) at (505) 277-4600 or Dr. Robert Busch (Chief Reactor Supervisor) at (505) 277-8027.

Sincerely,

Dr. Julia Fulghum Professor and Chair Department of Chemical and Nuclear Engineering

Dr. Kevin Malloy Associate Dean for Research School of Engineering

State grew Mexico County of Bernelello Subscribed and proorn to before me this 21st day of February, 2007 by Dr. Julia Fulghum and Dr. Kevin Malloy. Jina M. Sandoe Jina M. Sandoe Notary Public NOTARY PUBLIC STATE OF NEW MEXICO My Commission Expires: 5/9/08

The following documentation is provided in this submittal:

1. UPDATED SAFETY ANALYSIS REPORT

The Hazards Summary Report for the AGN-201 reactor prepared for the original license application in 1967 has been recently updated and re-formatted as a Safety Analysis Report. This new Safety Analysis Report is attached as Appendix A.

2. FINANCIAL CONSIDERATIONS

The AGN-201 reactor is owned and operated by The University of New Mexico. The University provides a budget adequate to cover the salaries of a full-time Facility Supervisor and a Chief Reactor Supervisor and to *provide* for the replacement of defective components. There is no specific line item for reactor operation as both the Facility Supervisor and the Chief Reactor Operator have duties other than the reactor; only a part of their salaries are directly attributable to the reactor. Other expenses incurred in the operation of the reactor are normally covered by the School's operating budget, or from grants for the upgrade of the reactor facility.

Information on the financial qualifications of the University to operate and decommission the AGN-201 reactor facility is located in Appendix B.

3. ENVIRONMENTAL CONSIDERATIONS

No environmental effects should result from use of this reactor. Since the AGN- 201 reactor has a dry core of uranium-impregnated polyethylene, sealed in an aluminum tank, there is no significant release of radioactivity to the environment. There is effectively little to no solid waste associated with the reactor operation. What solid waste that is generated is disposed of in accordance with the University Radiation Safety Policy Manual. Health physics support for the AGN-201 reactor is provided by the University's Safety and Risk Services Department and by the licensed reactor operators of the facility. A copy of the Environmental Report is included in Appendix C.

4. TECHNICAL SPECIFICATIONS

The Technical Specifications for the AGN-201 reactor have been updated and are attached as Appendix D. The only changes were to remove Channel 1 from the description of safety channels as it is not and never has been a safety channel for the UNM AGN-201 reactor.

5. OPERATOR REQUALIFICATION PROGRAM

The current Operator Requalification Program is attached as Appendix E. The only change is a clarification on the timing of written tests to be specifically bi-annual while operating tests are annual.

6. EMERGENCY PLAN

The Emergency Plan with requested changes is being submitted as Appendix F. A list of the changes requested is provided.

7. PHYSICAL SECURITY PLAN (Safeguards Information)

The Physical Security Plan has been updated to include the implemented compensatory measures. The revised plan is being submitted as Appendix G, with change bars indicating revisions to accommodate the compensatory measures and upgraded security.

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APPENDIX A

SAFETY ANALYSIS REPORT

SAFETY ANALYSIS REPORT

for the

University of New Mexico AGN-201M Reactor Facility

Facility License No. R-102

The University of New Mexico

Albuquerque, New Mexico

87131

February 2007

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Appendices

A. Maximum Credible Accident

I. Introduction

The University of New Mexico AGN-201 Reactor (SN-112) was transferred from the Berkeley campus of the University of California and began operation at the University of New Mexico in September of 1966. In the early months of 1969, the reactor was moved to its present site in the Nuclear Engineering Laboratory, and the operating power level was increased to 5 watts with the installation of new controls and instrumentation. Since that time the reactor has been regularly used as an operations training reactor and for student laboratory experiments.

II. The AGN-201 Reactor System



A) Reactor Description

Figure 1 - Top View of Reactor and Instrumentation

The AGN reactor is a homogeneous thermal reactor, used for teaching and training. Figure 1 - Top View of Reactor and is a simple top view of the reactor while Figure provides a detailed elevation view. The core tank and its contents are shown in Figure 3. The reactor core is **a sequence of the core tank and it consists of nine fuel discs that are separated at the mid-plane by a thin aluminum baffle.** A 1-inch inside diameter glory hole passes through the center of the core in the radial direction.



Figure 2 - Elevation View of AGN-201

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Figure 3 - AGN-201M Core Tank and Contents

The fuel is nominally 19.5 ± 0.5 percent enriched UO₂ powder embedded in radiation-stabilized polyethylene, which acts as the moderator. Details of the fuel loadings are given in Table 1. Total fuel loading including the fuel rods is the fuel rods is the fuel loading of U₂₃₅. There are nine disks of varying sizes and serial numbers. The relative location of each disk within the core is shown in Figure . The excess reactivity at 18°C with the glory hole empty must not exceed 0.25 percent- $\Delta k/k$. [TS 3.1.d] The reactor cannot be operated if the temperature is <18°C [TS 3.2.h]. There is a space at the top of the core for fuel expansion and fission product gas accumulation.

The core fuse is a polystyrene plug that supports the bottom half of the core. If the temperature rises above 100° C, the fuse will melt and the lower three fuel discs will fall approximately 2 in., shutting the reactor down. There is a higher fuel loading (2 times the nominal fuel density of .056 gm^{U235}/cm³) in the fuse so that during operation more heat is generated in the fuse than in the core. The temperature in the fuse rises about twice as fast as the temperature in the core.

The core is contained in a gas-tight aluminum cylindrical tank (32.2 cm diameter by 76 cm high). The core tank can be considered to consist of an upper and lower section separated by an aluminum disc or baffle.

The reflector consists of graphite on all sides of the core. It is 20 cm thick with a density of 1.75 g/cm3. Part of the graphite is in the core tank and part outside. The graphite is surrounded by a 10 cm thick lead shield. The lead shielding, graphite reflector and core are enclosed and supported by a 5/16-inch thick steel reactor tank (47.5 cm radius).

There are four, 10 cm diameter, access holes that pass through the graphite and can be used for experiments. When not filled with experiments, the standard loading of the access port is a combination of graphite, lead, and wood as shown in Figure 5.

Nuclear Engineering University of New Mexico AGN-201 Fuel Loading



Figure 4 - Fuel Disc Loading

NUCLEAR ENGINEERING UNIVERSITY OF NEW MEXICO Table 1 - AGN-201 FUEL LOADING





Figure 5 - Standard Access Port Loading

In the reactor's present configuration, two of the access ports have equipment loading. The access ports are numbered 1 through 4 and are located as shown in Figure 6. The \Box Ci Pu(239)-Be source and source drive are mounted in access port #2 on the North end. The source drive is shown in Figure 7. An auxiliary ionization chamber is located in access port #4 on the South end.



Figure 6 - Access Port Locations

The removable thermal column tank permits access to the core tank. This is normally filled with water to provide shielding. It can be filled with graphite if a thermal column is desired. The steel tank acts as secondary containment for the core tank and is fluid tight. The control and safety rods enter through the bottom of the reactor tank. The water tank is the third and outermost of the fluid tight containers. It is 198 cm in diameter and made of steel. It holds 1000 gallons of water and forms the fast neutron shield. Finally, there is a 60 cm concrete block shield on the front of the reactor tank and 40 cm on the sides and back. There is no shielding on the top of the reactor tank.



Figure 7 - Source Drive Configuration

B) Standard Loadings

The following standard loadings are defined. These loadings comply with the requirement that the excess reactivity with the standard loading does not exceed 0.25 percent with no experiments in the reactor and the control and safety rods fully inserted.

1) Standard Loading #1

The glory hole is empty, all access port fillers are in their normal positions, and the fine control rod contains polyethylene rod sections.

2) Standard Loading #2

The glory hole is empty, half of the access port fillers in port 4 are removed (C, Pb, and wood) and a boron-lined ion chamber is fully inserted into the remaining cavity. The rest is then filled with paraffin or polyethylene. The fine control rod contains normal fuel material rod sections.

3) Standard Loading #2 as Amended (Normal Configuration as currently operated)

This is the same as Standard Loading #2 except that the 2 Ci Pu-Be source and source drive are mounted in the north side of access port 2.

C) Reactor Control

The AGN-201 reactor has two safety rods, a coarse control rod and a fine control rod. The two safety rods and the coarse control rod are fuel loaded while the loading of the fine rod depends on the standard loading in use at the time. In all cases, inserting a rod adds reactivity to the system.

1) Two Safety Rods #1 and #2

These are 5 cm in diameter (~4.5cm diameter of fuel), and contain about 14.5 g of U_{235} in polyethylene. With a total reactivity of 1.25 percent $\Delta k/k$ per rod, the active length of each rod is 16 cm, and the active fuel is doubly encapsulated in two aluminum containers. This isolates the fuel in the rods from the core. The total travel is about 24 cm with 16cm inside the core. The insertion time is 40 to 50 sec full length. The scram removal time is approximately 200 msec.

2) Coarse Rod

This is 5 cm in diameter (~4.5cm of fuel) and again travels 24 cm. The active length is 16 cm. It can be inserted at high or low speed. It contains 14.5g U₂₃₅ in polyethylene, doubly encapsulated in aluminum with a reactivity worth of approximately 1.25% $\Delta k/k$. Normal insertion/withdrawal time at high speed is 40 to 50 seconds. The slow insertion time is approximately twice the fast insertion time. The scram time is approximately 200 msec. The safety rods and the coarse rod are each magnetically coupled to a carriage so that each rod can be dropped without scramming the reactor.

3) Fine Rod

In the current configuration, the fine rod contains 2.71 g of U-235 in polyethylene, doubly encapsulated and it is mechanically coupled to the carriage. It travels 24 cm and is 2.5 cm diameter. It can be inserted at high or low speeds. Normal insertion/withdrawal time is 40 to 50 sec at high speed. The slow insertion time is approximately twice the fast insertion time.

A scram de-energizes the holding magnets on the safety and coarse rods so that these fall under gravity, assisted by compressed springs, to a safe position. A warning light and bell indicate that this has happened. The fine rod does not scram but is driven out when a scram signal is received. The total worth of the fine rod is 0.20 percent $\Delta k/k$.

Small adjustments of the excess reactivity of the reactor can be made by adjusting the control rod travel. This is done by altering the position of the top limit switches. This is done to ensure that the excess reactivity <0.25 percent $\Delta k/k$ with no experiments in the reactor at the minimum operating temperature [TS 3.1.d]. The rods are inserted in the sequence of Safety Rod 1; Safety Rod 2; Coarse and Fine Rods together or separately. The Low Power Interlock prevents rod insertion if Channel 2 power is \leq 1e-12 amps. This prevents the addition of positive reactivity to a potentially critical mass without indication from one of the safety channels.

A detailed view of the rod drive mechanism is shown in Figure 8. The coarse rod reactivity calibration curve is shown in Figure 9. Figure 10 shows the partial coarse rod calibration curve, Figure 11 shows the partial fine rod calibration.



Figure 8 - Control Rod Drive Motor and Assembly



Figure 9 - Coarse Rod Calibration Curve



Figure 10 - Coarse Rod Partial Calibration Curve

4) Rod In-Rod Out

The rod-in red light, rod-out green light and the rod-engaged yellow light are indicators activated by micro-switches.

The safety systems are "fail safe". A scram signal or power failure will de-energize the holding magnet allowing the safety and coarse control rods to be accelerated downwards and out of the core by gravity and spring loading. The fine rod does not scram out but is driven out when a scram signal is received.



Figure 11 - Fine Rod Calibration Curve

D) Instrumentation and Safety Systems

1) Nuclear Instrumentation

a) Channel 1: U-235 Fission Chamber

This detector is a source-range detector of neutron flux used as a start-up monitor. The electronics consist of a preamp, an amplifier, a discriminator and a timer/counter. The signal is generated by a gas-filled U_{235} fission chamber biased to +250 VDC. To extend the life of the detector, the high voltage on the chamber is automatically switched off when the signal from Channel 2 exceeds 5.0 x 10⁻⁹ amps.

b) Channel 2: Boron-lined Ionization Chamber

Proper operation of Channel 2 is a license requirement. It provides log picoammeter response. The detector consists of a positively-biased (600 VDC) boron-lined, gas filled ionization chamber. The log picoammeter is used to assure operation within power limitations (1.2 x licensed full power per T.S.2.2.a).

c) Channel 3: Boron Lined Ionization Chamber

Proper operation of Channel 3 is a license requirement. It provides log picoammeter response. The detector consists of a positively-biased (600 VDC) boron-lined, gas filled ionization chamber. The log picoammeter is used to assure operation within power limitations (1.2 x licensed full power per T.S.2.2.a).

d) Auxiliary Channel: Boron-Lined Ionization Chamber

Similar to Channel 2 and 3 detectors, this channel is an auxiliary monitor, which can be used for highly accurate reactivity insertion measurements or data acquisition. This process is accomplished by adding a series current source (from the installed current supply) to cancel the detector signal. This highly accurate differential measurement allows current changes to be recorded with two orders of magnitude better resolution than from the detector alone. It also records the current measurements every 0.25 seconds and writes it to a file on a computer in ascii format for easy retrieval.

2) Safety Interlocks

There are three safety interlocks included in the reactor instrumentation. If any one of the three is tripped, a light is activated on the control panel and magnet current to the rod drives is deactivated (scrammed condition). Those interlocks are as follows:

a) Shield water level monitor. Float-type monitor trips if water level is more than 18 cm below the highest point on the reactor shield tank manhole opening.[T.S.3.2.g]

b) Shield tank temperature. Thermostat trips if shield water temperature drops below 18°C.

[T.S.3.2.h]

c) Earthquake switch. A small stainless steel ball is dislocated by heavy vibration causing a horizontal displacement of 0.16 cm or greater breaking the continuity of the electrical circuit and causing a tripped condition. [T.S.3.2.i]

3) Radiation Monitoring Equipment

Radiation monitoring instrumentation available to the reactor operators includes console-mounted meters and a portable survey meter. These and other such instruments available within the reactor laboratory are calibrated periodically by the Radiation Safety Department of the University. There are remote area monitors with automatic alarms installed to monitor gamma levels at the reactor console, check point three (on the south side of the reactor), reactor top, and in the general lab area (near the east door). All of this instrumentation is listed in Table 2 below:

Table 2- Remote Area Monitor Descriptions REMOTE AREA MONITOR (RAM) MODEL RMSII EBERLINE

AREA	RANGE	ALARM
General lab	.01-100 mR/hr	2 mR/hr
Reactor top	0.1-10,000 mR/hr	100 mR/hr
Reactor console	.01-100 mR/hr	2 mR/hr
Checkpoint three	.01-100 mR/hr	50 mR/hr

All detectors are energy compensated G.M. The detectors are monitored at the reactor control console. Alarm set points are adjustable.

III. Reactor Location

A. Reactor site

The University of New Mexico is located in Albuquerque, New. Mexico. The location of The University of New Mexico campus is indicated on the map provided as Figure 12. The reactor site is near the southwest corner of the main campus inside the city limits. Surrounding land is used primarily for residential purposes to the west and south, and campus of the University to the east and north.



Figure 12 – Reactor Site in Albuquerque

Meteorology

The Albuquerque metropolitan area is largely situated in the Rio Grande Valley and on the mesas and piedmont slopes that rise on either side of the valley floor. The Rio Grande flows from north to south through the area. The Sandia and Manzano Mountains rise abruptly at Albuquerque's eastern edge with Tijeras Canyon separating the two ranges. West of the city the land gradually rises to the continental Divide some 90 miles away.

The climate of Albuquerque is best described as arid continental with abundant sunshine, low humidity, scant precipitation, and a wide yet tolerable seasonal range of temperatures. Sunny days and low humidity are renowned features of the climate. More than three-fourths of the daylight hours have sunshine -- even in the winter months. The air is normally dry so muggy days are rare. The combination of dry air and plentiful solar radiation allows widespread use of energy efficient devices such as evaporative coolers and solar collectors.

Precipitation within the valley area is adequate only for native desert vegetation and deep-rooted imports. However, irrigation supports successful farming and fruit growing in the Rio Grande Valley. On the east slopes of the Sandias and Manzanos, precipitation is sufficient for thick stands of timber and good grass cover.

Meager amounts of precipitate `on fall in the winter, much of it as snow. Snowfalls of an inch or more occur about four times a year in the Rio Grande Valley, while the mountains receive substantial snowfall on occasion. Snow seldom remains on the ground more than 24 hours in the city proper, however, snow cover on the east slopes of the Sandias is sufficient for skiing most winters.

Nearly half of the annual precipitation in Albuquerque results from afternoon and evening thundershowers during the summer. Thundershower frequency increases rapidly around July 1st, peaks during August, then tapers off by the end of September. Thundershowers are usually brief, sometimes produce heavy rainfall, and often lower afternoon temperatures noticeably. Hailstorms are infrequent and tornadoes rare.

Temperatures in Albuquerque are those characteristic of a dry, high altitude, continental climate. The average daily range of temperature is relatively high, but extreme temperatures are rare. High temperatures during the winter are near 50 with only a few days on which the temperature fails to rise above the freezing mark. In the summer, daytime maxima are about 90, but with the large daily range, the nights usually are comfortably cool.

The average number of days between the last freezing temperature in spring and the first freeze in fall varies widely across the Albuquerque metropolitan area. The growing season in Albuquerque and adjacent suburbs ranges from around 170 days in the Rio Grande Valley to about 200 days in parts of the northeast section of the city.

Sustained winds of 12 mph or less occur approximately 80 percent of the time at the Albuquerque International Airport, while sustained winds greater than 25 mph have a frequency less than 3 percent. Late winter and spring storms along with occasional east winds out of Tijeras Canyon are the main sources of strong wind conditions. Blowing dust, the least attractive feature of the climate, often accompanies the occasional strong winds of winter and spring.

A table 3 lists the average monthly temperature extremas, average humidity, possibility of sunshine for the Albuquerque area. Table 4 is the monthly percipitaiton from 1970 thru 2006. These tables are reproduced from the Western Regional Climate Center's website.

Month	Average High/Low °F <i>(°C)</i>	Average Humidity	Possibility of Sunshine
January	47/23 (8/-5)	55%	88%
February	53/27 (12/-3)	49%	77%
March	61/33 (16/1)	39%	73%
April	70/41 (21/5)	33%	79%
May	79/50 (26/10)	32%	76%
June	89/59 (32/15)	28%	85%
July	92/64 (33/18)	42%	75%
August	89/63 (32/17)	45%	67%
September	82/56 (28/13)	49%	71%
October	71/44 (22/7)	43%	69%
November	57/31 (14/-1)	48%	87%
December	48/24 (9/-4)	56%	86%

.

Table 3 – Average Temperatures by Month for Albuquerque

Table 4 - Monthly Total Precipitation (inches)

YEAR(S)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN
1970	0.00	0.27	0.42	0.05	0.33	0.40	1.22	2.24	0.79	0.25	0.08	0.23	6.28
1971	0.27	0.21	0.03	0.78	0.16	0.02	1.05	0.87	1.44	1.15	0.67	1.40	8.05
1972	0.12	0.12	0.08	0.00	0.18	0.55	1.00	2.93	1.00	3.08	0.69	0.36	10.11
1973	0.85	0.33	2.18	0.91	0.66	1.37	1.80	1.19	1.13	0.35	0.08	0.03	10.88
1974	0.88	0.11	0.85	0.14	0.01	0.22	2.40	0.79	1.58	1.96	0.38	0.51	9.83
1975	0.26	0.99	0.95	0.10	0.66	0.00	1.43	1.40	1.66	0.00	0.28	0.28	8.01
1976	0.00	0.40	0.09	0.31	0.82	0.60	1.32	0.73	0.45	0.03	0.24	0.20	5.19
1977	0.88	0.13	0.63	1.07	0.10	0.04	0.69	2.28	0.78	0.76	0.42	0.13	7.91
1978	1.32	1.02	0.54	0.05	0.69	1.05	0.24	2.49	0.59	1.22	1.00	0.76	10.97
1979	1.07	0.62	0.14	0.24	2.48	1.02	0.80	1.53	0.40	0.27	0.91	0.87	10.35
1980	0.87	0.58	0.60	0.60	0.56	0.01	0.08	2.61	1.83	0.09	0.30	0.74	8.87
1981	0.05	0.67	0.80	0.30	0.53	0.35	1.07	1.68	0.41	1.43	0.37	0.00	7.66
1982	0.32	0.20	0.84	0.05	0.52	0.09	1.32	1.09	1.34	0.26	0.60	0.78	7.41
1983	1.10	0.71	0.61	0.02	0.32	1.21	0.55	0.27	0.91	1.20	0.44	0.42	7.76
1984	0.33	0.00	0.62	0.50	0.16	0.48	1.13	2.70	1.13	3.04	0.63	1.36	12.08
1985	0.49	0.54	0.70	1.69	1.12	0.53	1.16	0.49	1.53	2.15	0.19	0.16	10.75
1986	0.22	1.01	0.17	0.33	1.11	2.57	1.51	2.26	0.53	1.54	1.29	0.44	12.98
1987	0.66	0.61	0.07	1.00	0.58	0.13	0.91	2.98	0.20	0.44	0.42	0.34	8.34
1988	0.15	0.07	0.85	1.42	0.62	1.25	2.26	3.29	2.63	0.32	0.22	0.03	13.11
1989	0.57	0.35	0.48	0.00	0.02	0.02	1.51	0.48	0.31	0.97	0.00	0.28	4.99
1990	0.21	0.49	0.41	1.71	0.45	0.27	2.36	1.79	0.96	0.15	0.86	0.59	10.25
1991	0.60	0.06	0.14	0.00	1.14	0.65	2.63	1.26	1.43	0.26	1.93	1.49	11.59
1992	0.60	0.20	0.63	0.22	1.81	0.67	2.01	2.17	0.79	0.70	1.12	1.16	12.08
1993	0.94	1.82	0.22	0.00	0.20	0.44	0.23	3.05	0.49	0.64	0.97	0.03	9.03
1994	0.02	0.26	0.59	0.07	1.87	0.28	0.61	2.70	1.21	1.54	1.38	0.62	11.15
1995	0.55	0.39	0.16	0.69	0.08	0.20	0.35	0.74	2.32	0.00	0.03	0.17	5.68
1996	0.17	0.19	0.02	0.00	0.02	2.86	1.03	1.54	1.45	1.52	0.95	0.00	9.75
1997	0.55	0.12	0.11	1.65	0.42	1.03	2.04	1.96	2.43	0.32	0.73	1.00	12.36
1998	0.14	0.66	2.34	0.64	0.00	0.17	2.37	0.88	0.15	1.80	0.46	0.22	9.83
1999	0.12	0.00	1.10	0.59	0.54	0.60	1.47	3.04	0.54	0.26	0.00	0.03	8.29
2000	0.30	0.30	1.27	0.00	0.07	0.72	0.83	0.57	0.37	2.66	0.91	0.24	8.24
2001	0.28	0.27	0.27	0.51	0.38	0.26	1.37	1.59	0.51	0.14	0.68	0.24	6.50
2002	0.34	0.07	0.00	0.39	0.02	0.18	0.88	1.59	1.53	0.54	0.49	0.36	6.39
2003	0.00	1.02	1.45	0.00	0.09	0.20	0.41	0.71	0.29	1.58	0.49	0.11	6.35
2004	0.10	1.17	0.67	3.00	0.00	0.61	2.25	0.23	0.97	1.13	1.37	0.30	11.80
2005	1.38	1.78	1.12	1.17	0.40	0.09	1.03	0.49	2.83	1.03	0.00	0.10	11.42
2006	0.04	0.00	0.14	0.13	0.00	1.14	3.55	3.74	1.10	1.70	0.00 z	0.00 z	11.54

Geology and Hvdroloqv

The Albuquerque area lies in and along the Rio Grande Valley, a long narrow structural depression bordered by uplands - a rift valley. That part of the Middle Valley in which the Rio Grande flows is underlain with up to 120 ft of recent alluvium and is called the inner valley. The alluvium consists of unconsolidated cobbles, gravel, sand and silt and is highly porous and permeable allowing relatively free movement of water and yielding large quantities of good to fair quality water. Beneath the alluvium in the inner valley to a depth of at least 5000 ft. is the Santa Fe group, similar to the alluvium. The Santa Fe group consists of unconsolidated to loosely consolidated gravel, sand, silt and clay with some interbedded volcanic rocks. The Santa Fe group yields large quantities of water to wells.

The Sandia and Manzano Mountains border the Rio Grande Valley on the east. The sloping surface of the valley fill from the base of the mountains to the Rio Grande is referred to as the east mesa. The slope of the east mesa is about 250 ft. per mile near the mountains; near the river the slope is about 20 ft. per mile. The distance between the base of the mountains and the east edge of the inner valley ranges from about 3 miles in the northern Albuquerque area to about 9 miles in the southern part. The inner valley is relatively flat and ranges in width from 1 to 4 miles. It is separated from the east mesa by a bluff. The University of New Mexico campus lies on the east mesa about a mile from the inner valley. The east mesa is underlain by the Santa Fe group to a depth of over 5000 ft.

A series of cut terraces parallel the Rio Grande on the west. A broad upland called the Llano de Albuquerque about 600 ft. above the river borders the cut terraces on the west. The Llano together with the cut terraces is called the west mesa in the vicinity of Albuquerque. The Llano is some 70 miles long and 8 to 12 miles wide, sloping southeastward at about 50 to 100 ft. per mile. The majority 'of the west mesa is underlain with the Santa Fe group. A map of the major land masses in the greater Albuquerque area is shown in figure 13.

The Santa Fe group and the alluvium yield water of the acceptable quality for most purposes. Most of the water has a specific conductance of less than 1000 micromhos. In the alluvium of the inner valley water of poorer quality is found at shallow depth. This water is mostly that added to the groundwater reservoir from irrigation return. With increased depth the quality of water is better and approaches the quality of water present in the underlying and adjacent Santa Fe group.

The water table slopes, and groundwater moves, southwestward from the Sandia-Manzano Mountain front and southeastward from the Rio Puerco, toward a groundwater depression about 8 miles west of and roughly parallel to the Rio Grande. The water table in the Rio Grande's inner valley slopes southward and resembles in cross section a horizontal shelf on the southwestward slope. The water table for the Albuquerque area is shown in figure 14.

The groundwater reservoir in the area is recharged from precipitation, from perennial and ephemeral streams, from irrigation systems, and from water applied to the land. Considerable recharge occurs near the top of alluvial fans near the mouths of many canyons in the Sandia and Manzano Mountains.



Figure 13 – Albuquerque Area Formations



Figure 14 - Albuquerque Water Table

The Albuquerque Basin, located in central New Mexico, is about 100 miles long and 25 to 40 miles wide. The basin is defined as the extent of consolidated and unconsolidated deposits of Tertiary and Quaternary age that encompass the structural Rio Grande Rift within the basin. Drinking-water supplies throughout the Albuquerque Basin are obtained solely from ground-water resources. An increase of approximately 20 percent in the population from 1991 to present also resulted in an increased demand for water. From April 1982 through September 1983, a network of wells was established to monitor changes in ground-water levels throughout the Albuquerque Basin. This network consisted of 6 wells with analog-to-digital recorders and 27 wells where water levels were measured monthly. Currently (2004), the network consists of 234 wells and piezometers. The location of the monitoring wells in the Albuquerque area can be seen in figure 15.



Figure 15 - Water Monitoring Well Locations Around Albuquerque

Seismology

The following data were obtained through the courtesy of Dr. Stuart A. Northrop, state Collaborator for New Mexico, Seismological Field Survey, U.S. Coast and Geodetic Survey, The University of New Mexico, Albuquerque, New Mexico. References (14) and (15).

List of earthquakes felt in or near Albuquerque (Rossi-Forel Intensity Scale),

1893 April 8	A Belen Shock (Intensity VII) was felt in Albuquerque
1893 July 12	Three shocks at Albuquerque, one of Intensity VI
1906 July 16	A Socorro shock (VIII at Socorro?) was felt here
1906 Nov 15	Another Socorro shock (VII to VIII?) felt here
1918 May 28	Severe shock of shallow focus at . Cerillos (possibly VIII to IX there) was felt here'(IV).
1930 March 23	Slight
1930 Dec 3	About VI
1930 Dec 4	Slight
1931 Jan 27	Slight
1931 Feb 3	V
1931 Feb 4	VI to VIII
1935, Dec 12 to 1936, Jan 4	The Belen swarm with 81 shocks on 24 different days at or near Belen. Of these, seven were felt at Albuquerque, as follows:
	Dec 17, Dec 18, Dec 19, Dec 21, Dec 28, Dec 30 (most severe one felt in Albuquerque), Jan 4, 1936
1936 Sept 9	IV to possibly V
1936 Sept 11	Three shocks of about III each
1938 April 15	Slight
1938 April 16	Slight

1947 Nov 6	Slight, in Sandia Mountains
1954 Nov 2	IV
1954 Nov 3	V
1956 April 25	Slight, in Sandia Mountains

The following data is an update to the seismic activity within a 10 km radius of Albuquerque from 1973 to present. The data was obtained from the USGS/NEIC (PDE) data base.

1973 Sep 22	Slight
1975 Jun 28	Slight
1975 Sep 29	Slight
1980 Mar 22	Slight
1982 May 31	Slight
1982 Oct 07	Slight
1983 Mar 02	IV
1984 Aug 26	Slight
1985 Jul 16	Slight
1985 Jul 17	Slight

The Rossi-Forel scale of intensity is as follows:

- I Microseismic shock: recorded by seismograph, felt only by an experienced observer
- II Extremely feeble shock: felt only by a few persons at rest
- III Very feeble shock: felt by several people at rest, both indoors and outdoors
- IV Feeble shock: felt by persons in motion, ceilings creak and crack, small objects may move, standing autos may rock slightly
- V Shock of moderate intensity: felt generally by everyone, heavy furniture may be disturbed, unstable objects may overturn, dishes and a few windows may break
- VI Fairly strong shock: general awakening of those asleep, trees and shrubs visibly agitated, many small objects overturn, property damage slight
- VII Strong shock: overturns many movable objects, canned goods thrown from shelves, plaster falls from ceilings, general panic without much damage to buildings except ceilings and windows

- VIII Very strong shock: walls crack, plaster falls from both walls and ceilings, many windows broken; chimneys toppled, weak buildings may collapse
- IX Extremely strong shock: partial destruction of some buildings, total destruction of weaker buildings, people thrown from their feet, possibly some injury and loss of life
- Х Shock of extreme intensity: great and general disaster, extensive property damage and loss of life, fissures develop in ground, falls in mountains.

Figure 16 shows all recorded epicenter for seismic activity in the Albuquerque region.



Figure 16 - Epicenter for Seismic Activity in Central New Mexico

2

mm/vr

Demography

The population densities around the Nuclear Engineering Laboratory listed below in table 5 were calculated from 2000 Census Blocks obtained form the city of Albuquerque.

	Table 5 – Population in the Reactor Vicinity					
Radial Distance (miles)	Population	Area (sq. mi.)	Population Density (per sq. mi.)			
1	16,808	3.14	5352.9			
5	244,518	78.53	3113.7			

The University of New Mexico has about 27,000 students that attend the main campus. The number of people on campus during the work week is significantly higher than the residential population.

IV. Reactor Building

A. Laboratory Building

The laboratory is a one story concrete structure with six feet of earth between one foot thick concrete walls on the south and west sides. The north and east walls are poured concrete approximately one foot thick. A floor plan is shown in Figure 16. The only outside windows in the building are in the entrance doors. There are four entrance doors into the building: (1) a personnel door on the east side, (2) a personnel door (3) a double-width equipment door on the north side (center), and (4) a personnel door on the north side (west end) which is bolted and not normally used. The roof of the building over the Reactor Laboratory is three feet of earth between five inch thick concrete slabs. A portion of the roof is five feet of earth between five inch thick concrete slabs to provide additional shielding for the Cobalt-60 facility that was located in the laboratory. The laboratory building is located on the southwest corner of the campus. The location of the building can be seen on the campus map in Figure 17. It is building 121 located in section I2.



Figure 16. Nuclear Engineering Laboratory Building


Figure 17 – Campus Map

B. Reactor Laboratory



V. Safety of the AGN-201 Reactor Facility

A. Maximum Credible Accident

The total excess reactivity of the reactor is given by the manufacturer as 0.5%. For the purposes of a hazards analysis, however, it is assumed that an instantaneous insertion of 2% in reactivity occurs. Because of its inherently low excess reactivity, the system could never acquire this reactivity in the course of normal operation. It could only occur if improper materials were introduced into the reactor. Strict administrative controls discussed in the next section will normally make this impossible. The placing, for instance, of significant positive reactivity in the glory hole will be strictly forbidden. In this sense, the assumed 2% in reactivity is admittedly rather arbitrary since anyone capable of inserting 2% in reactivity in the reactor is surely capable of inserting 20%. Nevertheless, the analysis demonstrates the fact that the reactor does not "runaway" following a sudden increase in reactivity.

The analysis of this type accident is given in Appendix A. It is shown there that this accident leads to a power excursion that is self-limiting in about 300 milliseconds. The maximum temperature of the core never rises above 100 °C. However, tests performed by the manufacturer indicate that the core material, polyethylene, does not melt below 200 °C. It can be expected therefore that such an accident would not damage the core.

As previously noted, various scram circuits would be activated as the result of sudden increase in the flux in the system. However, if for some reason these circuits fail to operate, the reactor would be shutdown by the melting of the fuse. This fuse is loaded with twice the density of uranium as the remainder of the core and would reach substantially higher temperatures than the core during an excursion. In addition, the fuse is made of polystyrene rather than polyethylene and melts at about 100 °C. Following the disintegration of the fuse, the core falls apart, which decreases the reactivity of the system by from 5% to 10% according to the manufacturer.

It is shown in Appendix A that this accident would give a radiation dose of less than 1.1 rem to a person standing immediately next to the concrete shield. This dose, while far from desirable, is well below levels that lead to detectable medical injury.

B. Shielding Requirements for 5-watt operation

As detailed in the amendment for 5-watt operation for Aerojet-General Nucleonics, dated February 11, 1957, and on file with the commission in Docket 50-32, an 18 inch additional concrete shield wall is sufficient to maintain sub-tolerance radiation levels external to the shield when operating at 5 watts. Subsequent conversations with Aerojet-General Nucleonics indicate that 16 inches of ordinary concrete shielding is sufficient. Thus, a stacked concrete block wall consisting of solid 8" x 8" x 16" ordinary concrete blocks was assembled around the existing reactor tank when the maximum power level was raised to 5 watts in 1969.

The shield wall extends two feet above the top of the reactor. There is no shielding over the top of the reactor; this area being a controlled area during 5-watt operation. Access to the skirt doors is by way of concrete shield doors mounted on casters with a maximum of 1-inch clearance between the floor of the building and the bottom of the door. The blocks are stacked in staggered layers (both vertical and horizontal stagger) to eliminate any straight-through penetrations.

The radiation levels associated with 5-watt operation (peak thermal flux of 2.5×10^8 n/cm² -sec) are given in Figure 19 as measured on April 18, 1985.

Assuming a dose rate of 0.4 mrem/hr as calculated by AGN as the most severe case of air and roof scattered neutron radiation and 0.5 rem/hr of gamma radiation due to streaming through a 1/8" crack or hole in the shield as per AGN calculations, the total expected dose rate for the 16" shield (maximum obtainable) should not exceed 1.5 mrem/hr of neutrons plus 5 mrem/hr of gamma for a total of 6-7 mrem/hr.

The measured dose rates immediately adjacent to the shield are too high to permit unlimited access. Thus, chains have been placed across the stairway entrances into the reactor pit and persons are allowed in the pit only for limited periods of time during 5-watt operation. The top of the reactor is not shielded. The measured dose rate at 5 watts will be about 100 to 150 mrem/hr. The top of the reactor is a high radiation area during 5 watt operation and, therefore, access to it is controlled and strictly limited. Attenuation through the roof reduces the radiation level on top of the roof to less than 0.05 mrem/hr.

VI. Reactor Safety Evaluation

- A. Characteristics of the System
 - 1. During normal operation, negligible amounts of fission products are formed within the core and a large part of these are contained within the UO_2 particles.
 - 2. The core and reactor gastight tanks are the primary and secondary seals, which will retain the gaseous fission products released during a nuclear runaway.
 - 3. The temperature coefficient of reactivity is negative and large in absolute value (-2.81 x 10^{-4} per °C).
 - 4. The amount of available excess reactivity in a normal loading of the core is restricted to about 0.25%.

- 5. The safety and control rod system is a "fail safe" design in that the scram signal opens the holding magnets, allowing the rods to be accelerated downward by both gravity and spring loading.
- B. Causes of Hazards
 - 1. Sabotage and Unauthorized Use of the Facility



2. Accidental Operating Errors

In general, accidental errors that occur during the normal operation of the reactor will be rectified before the resulting hazards arise. Interlocks insure that the proper procedure is followed during the startup of the reactor. Abnormal conditions caused by human error will automatically shut the reactor down. Scrams can be initiated by the following:

- a. Exceeding a maximum preset power level
- b. Placing the reactor on a period that is less than 5 sec.
- c. Lowering of the shielding water level
- d. Loss of electrical power
- e. Pressing the sensitrol reset button
- f. Reaching a minimum preset power level
- g. Disconnecting the electrical cables to the safety and control rods
- h. Pressing the manual scram button.

The worst possible human error that can arise is the accidental insertion of fissionable material into the reactor.

During normal operation the fuel loading is fixed, the thermal column water tank is installed, Hence, it is extremely doubtful that accidental insertion of fissionable material would occur through this entrance.

The unavailability of

fissionable material in the general area limits the chance of this occurring.

3. Equipment Failure

As far as possible, all electrical and mechanical equipment has been designed so that an equipment failure will cause the reactor to shut down. In the event of an electrical power failure, the safety and coarse control rods, which are held in place by electromagnets, will be rapidly ejected from the reactor core. Any electrical cable failures will also scram the reactor. As each of the safety and coarse control rods has a reactivity worth of more than 1%, any one rod can shut the reactor down under normal conditions.

There are two flux indicators that monitor the power level of the reactor. Each is connected to a sensitrol relay for high-level trip purposes. The reactor can be scrammed automatically even though as many as two trip circuits fail simultaneously. If all the trip circuits fail, a shutdown can be initiated by actuating the manual scram.

A major problem would arise if all the rods failed to scram when the reactor power was rising. This event is very unlikely because of the "fail safe" design of the rods. The resulting hazards are analyzed below in Part C.

- C. Hazards due to Accidental Operating Errors and Equipment Failure
 - 1. An increase in the radiation level can arise if the shielding plugs and covers are not in place. A visual inspection of the shielding is required in the checkout procedure. If the operator's inspection proves inadequate, the area gamma monitor will detect the error.
 - 2. If the reactor is operated without water in the shielding tank at 5 watts power, the radiation level just outside the reactor tank will be about 0.1 mrem/hr of gamma rays and about 0.25 mrem/hr of fast neutrons.* Although the radiation levels are above the permissible level, the hazards are obviously far from acute. It is doubtful that the loss of the shielding water would not be detected during the checkout procedure. A shielding water level switch, included in the interlock system of the reactor, prevents operation of the reactor when the water level has dropped.
 - 3. If the control rods are accidentally inserted after the operating power is reached, the power will rise with a period of less than 15 sec. The reactor would then scram after a preset upper power level on the logarithmic channel or count rate meter is reached. If the scram mechanism did not function properly, the reactor power would rise until the negative temperature coefficient reduced the reactor to a "just critical" state at some high power.

When the rods are fully inserted, approximately 0.25% of reactivity is placed into the system. Since the temperature coefficient of reactivity is about -2.81 x $10^{-4} \Delta k/k/^{\circ}$ C, the equilibrium temperature reached at the higher power level will be about 10 °C over room temperature. This will correspond to a fission rate of approximately 10 watts, a factor of 2 above the normal operating power.** The radiation level at the least advantageous position adjacent to the tank would be approximately 80 mrem/hr. This radiation is not excessive due to the additional concrete block shielding.

*A.T. Biehl et al., <u>Elementary Reactor Experimentations (Oct 1957</u>), p. 21 & attenuation from additional concrete shielding

- ** ibid., p. 99
 - D. Hypothetical Maximum Accident

The accidental insertion of fissionable material into the core through the glory hold could produce a major accident. The hazards involved would be dependent upon the amount of fissionable material inserted, and the insertion speed of the material. The hypothetical maximum conceivable accident occurring, which could hardly be called an "accident", would be the insertion of 20 grams of U-235. The volume of the glory hole through the core is about ~15 cm. Typical fuel loading of the AGN is about 0.15 g/cm so the glory hole in the core area could contain about 17 grams of fuel. The reactivity worth of a gram of U-235 ranges from 0.1% at the core centerline to 0.036% at the edge.***

If it is assumed that- the average worth of a gram of U235 is 0.06% and that it is possible to insert instantaneously a reshaped fuel plate, the induced reactivity will be approximately 1.2%. If a natural uranium rod of the same shape was instantaneously inserted into the core, the induced reactivity would be about 0.93%. The accidental insertion of either of these materials seems doubtful, since they would first have to be reshaped to fit into the glory hole. However, their induced reactivities do have a bearing on the maximum reactivity that can be put into the system. As discussed in the next section, a 2% step increase of reactivity is chosen to determine the hazards of a nuclear runaway.

E. Evaluation of the Hypothetical Nuclear Runaway

An evaluation of a nuclear runaway accident in the AGN-201 Reactor has been made by the Aerojet staff. A 2% instantaneous step increase in reactivity was arbitrarily chosen. As seen from the previous section, insertion of this magnitude of reactivity is within the realm of possibility and should adequately describe the maximum power excursion.

Two assumptions are used as a basis for calculating the power generated in the accident.

1. At time equal zero, a $\sim 2\%$ step increase in reactivity is inserted with the reactor at 100 mw power.

2. At time zero, the energy in the core is negligible compared with the energy liberated during the accident, and there is no heat removed from the core during the excursion.

Some of the pertinent constants used in the calculation were:

- 1. Prompt neutron lifetime = 10^{-4} sec.
- 2. Reciprocal of the average mean lifetime of the six groups of delayed neutrons = 0.1 sec^{-1} .
- 3. Temperature coefficient of reactivity = $-2.81 \times 10^{-4} / ^{\circ}C$
- 4. Specific heat capacity = $0.52 \text{ cal/gm-}^{\circ}\text{C}$
- 5. Core density = 0.92 gm/cm^3 .

The time-delayed behavior of the neutron density, including one average group of delayed neutrons, is considered. A numerical finite difference solution of the three nonlinear differential equations (for neutron density, precursor density, and temperature) yielded a value of 15.0 Mw for the peak power at time equal to 140 ms and a total energy released of 2.41 megajoules. The resulting average temperature rise was 100.1 °C, and the temperature rise at the center of the core was about 150 °C. The total dose to a person standing next to the reactor was calculated to be about 1 rem. The prediction that the core does not melt and that the fission products are contained within the core and primary and secondary containers is reasonable, since polyethylene does not melt below 200°C. The power excursion is self-limiting because of core expansion due to the temperature rise. This is strongly dependent on the magnitude of the temperature coefficient of reactivity.

APPENDIX A

A.1 Safety Considerations during Nuclear Runaway

To evaluate the safety characteristics of the AGN-201 Reactor, a nuclear excursion resulting from a 2% instantaneous increase of reactivity is considered. The reactor would have a period of about 10 ms. The excursion would last from 200 to 220 ms, at which time the average temperature rise of the core (approximately 100 °C) would be sufficient to stop the reactor because of core expansion. The temperature at the center of the core would rise to about 150 °C. Since the fuel material is exposed to about 5 megarem of ionizing radiation during fabrication, the polyethylene will not melt below about 200 °C. During the excursion a peak power of about 75 MW is reached, about the total energy released is 2.4 MJoule. It is expected that all fission products released would be contained in the core and reactor fluid-tight metal tanks. To ensure that the system does not remain in a near-critical state (if there is also a failure to scram), the thermal fuse which melts at 100 °C will drop the lower half of the core to the bottom of the core tank, so that the reactor becomes subcritical. The total radiation dose to a person next to the reactor would be approximately one rem. If a loss of 'shielding water preceded the excursion, personnel next to the reactor would receive an exposure of about 200-300 rem of fast neutrons.

The total elapsed time between a neutron-induced signal from an ion chamber and a 2% decrease of reactivity from the resulting scramming of the safety rods may be as long as 300 ms. This breaks down to about 250 ms for the electronic circuitry and 50 ms for the necessary safety rod travel. Periods in excess of 30-50 ms will be adequately arrested by the scram system. Periods of this magnitude are initiated by a reactivity increase of about one percent.

A.2 Evaluation of Energy Released during a Nuclear Runaway

(1) Introduction

One of the principal problems in evaluating the AGN-201 reactor is the extent of the energy generated in an accidental nuclear runaway. In this problem, the assumption is made that a step increase in reactivity is imposed upon the system and the only source of limiting the excursion is the negative temperature coefficient. A discussion of the problem is given the The Reactor Handbook - Volume I - Physics, and this general procedure is followed in this analysis.

As a first approximation, consider that a 2% step increase above delayed critical is imposed upon the reactor. To bring the reactor to just critical again, there must be a temperature increase of:

$$\Delta u = \Delta k/C_{\rm T} = \frac{0.02}{2.5x10^{-4}} = 80^{\circ}{\rm C}$$

or an energy liberation of

$$\Delta E = (\Delta u) Mc$$

 $\Delta E = 80 \times 12000 \times 0.55 = 5.3 \times 10^5$ cal

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= 2.20 Mjoules

A dynamic analysis indicates that approximately 2.2 Mjoules is actually released in such an accident.

(2) Analysis of Accident

Considering the time-dependent behavior of the neutron density, including, one average group of delayed neutrons, one obtain~ for the time-dependent diffusion equations:

$$\dot{n} = \frac{P_0 - C_T \theta}{\ell} n - \frac{\beta}{\ell} n + \overline{\lambda}C$$
$$\dot{C} = \frac{\beta n}{\ell} - \lambda C$$
$$P = \dot{E} = \sum_f nv\varepsilon(Vol)$$
$$\dot{\theta} = \frac{\dot{E}}{\rho c(Vol)}$$
$$\dot{\theta} = \frac{\sum_f v\varepsilon n}{\rho c}$$

where

n = neutron density (n/cm')

 $P_0 = \text{excess reactivity (dimensionless)}$

 C_T = temperature coefficient of reactivity (°C⁻¹)

 θ = temperature rise (^OC)

 ℓ = effective neutron lifetime (sec)

 β = fraction of delayed neutrons (dimensionless)

 $\overline{\lambda}$ = reciprocal of the average mean lifetime of the 6 groups of delayed neutrons (sec -1)

C = average concentration of delayed neutron precursors

 $\Sigma_{\rm F}$ = macroscopic fission cross section, (cm-l)

- v = average thermal neutron velocity (cm/sec)
- ε = energy per fission (watt-sec/fission = joules/fission)

M = mass of core (gm)

 ρ = density (gm/ cm3)

c = specific heat capacity (watt-see/ $gm-^{\circ}C = cal/gm-^{\circ}C$)

Vol = core volume (cm3)

E = energy (watt-see or joules)

$$P = power (watts)$$

The solution to the coupled nonlinear differential equations (1), (2), and (3) yields the neutron density (and thus the power and energy), the temperature, and the delayed neutron precursor density as a function of time. Since only a first integral of the equations can be obtained analytically, a numerical finite difference method will be used in which equations (1), (2), and (3) become:

$$n_{i+1}(t) = n_i(t) + \Delta t \left[\left(\frac{P_0 - C_T \theta_i}{\ell} \right) n_i(t) - \frac{\beta}{\ell} n_i(t) + C_i(t) \overline{\lambda} \right]$$
$$C_{i+1}(t) = C_i(t) + \Delta t \left[\frac{\beta}{\ell} n_i(t) - \overline{\lambda} C_i(t) \right]$$
$$\theta_{i+1}(t) = \theta_i(t) + \Delta t \left[\frac{\sum_f v \varepsilon}{\rho c} \right] n_i(t)$$

These can be solved as functions of time once initial values for n, C, and are chosen. The initial values and other pertinent constants in the case of the AGN-201 operating at 5 watts with a 2% step increase in reactivity inserted are:

$$t_{0} = 0$$

$$\theta_{0} = 0$$

$$C_{0} = 5.925 \times 10^{5} atoms / cm^{3}$$

$$C_{T} = 2.5 \times 10^{-4} / ^{\circ} C$$

$$\beta = 0.0075$$

$$\sum_{f} = 0.074 cm^{-1}$$

$$v_{s} = 2.22 \times 10^{5} cm / sec$$

$$\varepsilon = 76.6 \times 10^{-13} cal / fission$$

$$\varepsilon = 32.1 \times 10^{-12} watt - sec / fission$$

$$n_{0} = \frac{(P/Vol)}{\sum_{f} v\varepsilon} = 790 neutrons / cm^{3}$$

$$P_{0} = 0.020$$

$$\ell = 10^{-4} sec$$

$$\overline{\lambda} = 0.1 sec$$

$$\rho c = 2 watt - sec / cm^{3} - ^{\circ}C = 0.478 cal / cm^{3} - ^{\circ}C$$

$$\frac{\sum_{f} v\varepsilon}{\rho c} = 2.64 \times 10^{-3} cm^{3} - ^{\circ}C / sec$$

$$\Delta t = 10^{5} sec$$

(3) Discussion of Results

(a) Assumptions

It will be recalled that in the above analysis the following assumptions were made:

- 1) At time equals zero, a 2% step increase in reactivity was inserted with the reactor at 5 watts.
- 2) At time zero, the energy in the core was negligible in comparison with the energy liberated during the accident. There was no heat removed from the core during the excursion. These are both very reasonable assumptions for the AGN-201.
- (b) Results

The numerical solutions (see Figures AI, A2, and A3) to equations (1), (2), and (3) yield 75 mw for the peak power at t = 140 ms, a total energy release of 2.41 MJoules and a temperature rise of 100.7 °C, as compared with the crude preliminary values of 80 °C and 2.2 MJoules arrived at in Section 1.

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APPENDIX B

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FINANCIAL QUALIFICATIONS CONTENTS

- 1.0 FINANCIAL QUALIFICATIONS
- 2.0 ESTIMATED COSTS OF OPERATIONS
- 3.0 SOURCES OF FUNDING
- 4.0 DECOMMISSIONING COSTS
- 5.0 2006 UNM Financial Report (see pg. 28, line item INSTRUCTION provides funds for reactor operation through the School of Engineering, Department of Chemical and Nuclear Engineering.)

1.0 FINANCIAL QUALIFICATIONS

This section of the application for renewal of the UNM AGN-201 M reactor license includes information showing that the University has more than sufficient funds necessary to cover the estimated costs to safely operate the reactor facility and subsequently decommission it.

2.0 ESTIMATED COSTS OF OPERATIONS

The estimated operating costs for the first five (5) years of operation after renewal of the license are based on actual facility operating costs during the past three years. We do not expect any major increases in activities above the level that has existed here for the past several years, and thus do not expect any major increases in University operating expenses beyond those due to inflation, salary increase trends, etc. As the responsibilities of the Facility Supervisor and Chief Reactor Supervisor are broader than just reactor operation and administration, there is effectively no salary cost associated with the operation of the reactor. We would still be teaching the classes associated with its use.

If any major new activities were to involve the reactor, funding for them would have to come from the external organization causing these activities. However, a five (5) watt reactor has few substantial uses involving research or commercial utilization, as shown by the fact that it has been used almost exclusively as an educational and training facility.

Although the reactor is almost 50 years old, maintenance and equipment upgrades have maintained it in reliable operating condition. It is not expected that significant funds will be required due to its age, but if needed, would be obtained through grants. On this basis, the estimated costs are shown below.

Estimated

Ann. Oper.

Costs, thousands \$111.51.51.55These estimates are probably on the high side, considering recent upgrades to the reactor have
reduced maintenance costs.11.51.55

Table 1 UNM Reactor Facility Expenses

:	'03-'04	'04-'05	'05-'06
Reactor Upgrade [*]	0	0	12,000
Misc. Materials & Supplies	450	500	400
Total	450	500	12,400

*\$15,000 provided by USDOE for upgrades through May 2007

3.0 SOURCES OF EUNDING, approxime a additional of the additional of the state of

As shown in Table 1, the principal expenses are the miscellaneous materials and supplies, with upgrades coming from DOE grants. The USDOE has provided equipment upgrade grants over the past 20 years to allow the purchase of modern electronics for the safety channels and an enhanced security system for the facility.

The latest financial statement (2006) for the University, is included in the Appendix
4.0 DECOMMISSIONING COSTS

Because of its small size and superbidesign for teaching, The University of New Mexico is unlikely to decide to decommission the AGN-201 reactor in the next twenty years. However, when the University of New Mexico does decide to decommission the AGN-201 reactor, the School of Engineering will prepare a Decommissioning Plan and submit it for USNRC review and approval. That Plan will follow closely the steps and procedures followed by other AGN facilities that have undergone a similar process. The University of New Mexico will use in-house labor to accomplish the decommissioning work; will make arrangements for the transportation and USDOE Oak Ridge acceptance of the AGN-201 fuel; will survey and segregate activated and uncleanable-contaminated reactor components and materials from those that are non-activated items following USNRC and University regulations and will return useful, non-activated nor contaminated components and materials to School equipment and inventory supplies.

We estimate the costs of decommissioning the reactor in this manner to be no more than \$50,000 in 2007 dollars. (This figure is not expected to change much over the next twenty years.) However, the accuracy of this estimate is largely dependent on the regulatory requirements at the time of decommissioning.





THE UNIVERSITY OF NEW MEXICO

June 30, 2006 BOARD OF REGENTS AND PRINCIPAL OFFICERS

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Title:	Term Expires
President	12/31/2008
Vice President	12/31/2010
Secretary/Treasurer	12/31/2006
Member	12/31/2006
Member	12/31/2008
Member	12/31/2006
Member	12/31/2010

Governor of the State of New Mexico Secretary of Education

President, Graduate & Professional Student Association President, Associated Students of The University of New Mexico President, Staff Council President, Faculty Senate President, Alumni Association Chair, UNM Foundation

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Acting President and Executive Vice President for Administration Provost and Executive Vice President for Academic Affairs Executive Vice President for Health Sciences

Chief Executive Officer and Vice President for Hospital Operations

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Associate Vice President for Financial Services: Main Campus Associate University Controller: Operations and Reporting Associate University Controller: Sponsored Program Accounting Associate University Controller: Finance Project Director Associate Vice President of Budget, Planning and Analysis

Associate Vice President for Financial Services: Health Sciences Center Associate Controller: Health Sciences Center

Chief Financial Officer Interim Executive Director of Finance and Controller



Message from the President

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During the 2005 - 06 academic year, the University of New Mexico made strides in our priorities in education, research, patient care and public service. On behalf of the entire university, I am pleased to present our progress as reflected in the accompanying audit and other reports.

Student enrollment remains high, with more than 32,000 students attending classes at the main and branch a campuses. UNM faculty and staff generated more than \$295 million in contracts and grants. Also, UNM doctors, and nurses provided more than \$370 million in patient care services.

The University of New Mexico Foundation established an all-time high for fundraising topping \$48 million for the first time in the university's history. UNM easily exceeded its overall 2005-06 fundraising goal of \$47.1 million by raising nearly \$48.6 million for fiscal year 2005-06. The amount represents an increase of more than \$5 million from last fiscal year's then-record \$43.5 million.

The State of New Mexico maintained its support for higher education through a 7.1% increase in UNM's annual appropriation. These critical investments allowed UNM to note major accomplishments in 2005-06.

- We awarded nearly 4,500 degrees from associate through graduate degrees at main campus. With more than 67,000 alumni in the state, our graduates make a significant contribution to the state's economy.
- STC.UNM reported a 20 percent increase in new disclosures trademarks, copyrights or other forms of intellectual property protection – with a total of 96. License and option agreements increased from 18 in 2005 to 30 in 2006. STC worked with seven new companies licensing UNM technology, up from five last year.
- UNM Hospital has been named on the nation's most wired according to the results of the 2006 Most Wired Survey and Benchmarking Study released in the July issue of Hospitals & Health Networks magazine, which has named the 100 most wired hospitals and health systems since 1999.
- For the 11th consecutive year, U.S. News & World Report's "America's Best Graduate Schools" has ranked UNM's Rural Medicine program second nationally, while the School of Medicine's Family Medicine program moved up a spot from last year to ninth place in primary care-oriented medical schools. It's the 15th consecutive year the Family Medicine Program has placed in the top 10.

The University of New Mexico makes the best possible use of its resources to serve our students, state and global community. To all who have been a part of those efforts, we thank you. To all stakeholders we invite your consideration and review. Please join us on our journey of discovery and distinction at UNM.



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The University of New Mexico is rich with a diversity of people, a broad range of notable programs and research, and a location unique in architecture, landscape and climate.

Education: On its main campus, UNM offers more than 215 degree and certificate programs, including 93 bachelor's degrees, 70 master's degrees, 37 doctoral degrees, three professional degrees - law, medicine and pharmacy, five graduate certificate programs and five education specialties. The University is comprised of 11 degree-granting schools and colleges: Anderson Schools of Management, Architecture and Planning, Arts and Sciences, Education, Engineering, Fine Arts, Law, Medicine, Nursing, Pharmacy and University College, UNM also boasts a robust Division in the star of Continuing Education and Extended University. UNM has New Mexico's only schools of law, medicine, pharmacy and architectures

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National Recognition: Several UNM programs consistently rank among the best nationwide. The 2006 edition of "America's Best Graduate Schools" in U.S. News and World Reports ranked UNM programs in law, education, engineering and medicine among the best. These include clinical law, electrical and mechanical engineering, rural medicine, primary care curriculum, pharmacy, and occupational therapy. Additionally, the institution is recognized nationally for programs in Latin American Studies, anthropology, biology, nuclear pharmacy, laser optics, nanotechnology and environmental studies, among others.

UNM's main campus is classified by The Carnegie Foundation as a Carnegie Doctoral/Research University-Extensive, meaning that it offers a wide range of baccalaureate programs, is committed to graduate education through the doctorate and awards 50 doctoral degrees or more annually across at least 15 disciplines. UNM is also only one of three institutions classified as both a Hispanic Serving Institution and a Carnegie Doctoral/Research University.

Scholarships and Awards: In recent years, UNM students have won some of the most prestigious academic scholarships and awards. Two students were selected 2006 Goldwater Scholars. Additionally, an unprecedented five UNM students received Fulbright grants this year. They demonstrate a strong interest in international understanding and harmony by traveling abroad to explore a range of topics from alternate energy techniques to public policy. UNM has also had recent recipients of Truman, Rhodes and Marshall scholarships. In 2005-2006, UNM granted 4,590 degrees, including 2,890 bachelors, 1,215 masters, 181 doctoral and 250 professional degrees.

Faculty, Staff and Students: Students need great faculty to challenge, encourage and guide them. UNM's faculty is exceptional in the classroom and in the community. In 2005, 3,183 full and part time faculty were on main and branch campuses. UNM boasts outstanding faculty members including a Nobel Laureate, a MacArthur Fellow and several members of national academies. Recognition for outstanding work by UNM faculty includes a Marsh Award for Ecology, National Science Foundation dissertation fellowships, several Fulbright Scholarships, and recognition for publishing, scholarship and teaching. to a de la texte Just under 7,000 full time and nearly 8,300 part time staff serve UNM, providing a wide range of services. An additional 4,453 people work at University Hospital. As one of the state's largest employers, UNM's annual budget for 2005-2006 is approximately \$1.6 billion. Along with students and faculty, staff members are a vital, creative and energetic component of the people, places and programs we call UNM.

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a the state of the second Since its founding in 1889, the University of New Mexico has grown from 75 students to 26,280 students on main campus and Extended University. The number swells to nearly 33,000 with the addition of the student populations from branch campuses in Los Alamos, Gallup, Taos and Valencia County. The people of UNM represent a wide cross section of cultures and backgrounds.

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Enrollment Diversity: UNM ranks among the top 100 colleges for Hispanics according to rankings published in the Hispanic Outlook in Higher Education. UNM ranks 9th for awarding doctoral degrees to Hispanics, 19th for conferring master's degrees to Hispanics and 13th for awarding bachelor's

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degrees to Hispanics. University of New Mexico medicine, pharmacy and nursing schools are among the top 25 for graduating Hispanics, as reported in the June 5 issue of "Hispanic Outlook in Higher Education." Minority enrollment institution-wide represents approximately 45% of the main campus student body. Of these, 30% of the students are Hispanic and 5.8% are Native American. UNM-Gallup has a Native American population of 77.4%, the largest such population at any public higher education institution in the country. In addition, the branch campuses in Valencia, Taos and Los Alamos have minority populations of 62.6%, 56.8% and 51% respectively.

Notables: UNM's Health Sciences Center is the state's largest integrated health care treatment, research and education organization. The University's libraries, museums, galleries and Center for the Arts are rich cultural resources for the state. UNM Press – now in its 77th year – boasts a reputation as one of the best university publishing houses nationwide, while Tamarind Institute, a center-for fine art lithography, trains master printers, engages in teaching and research, and houses a professional collaborative studio for artists. Tamarind is recognized internationally for its contributions to the growth of contemporary printmaking. The Lobo athletic program draws fans to its many facilities, including "The Pit," a nationally ranked sports venue. UNM serves the state's business and economic communities as well as working closely with New Mexico's national laboratories. New Mexico businesses give a highly favorable evaluation to the educational preparation of students coming out of UNM and the state's other four-year institutions.



Financial Highlights

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At June 30, 2006, the University of New Mexico's endowment assets totaled more than \$425 million including \$266.1 million in the Consolidated Investment Fund (CIF) and \$149 million for the University's share of the State Permanent Fund.

The University Of New Mexico Board Of Regents has delegated authority to the UNM Foundation Investment Committee to act as the official "Advisory Committee" to oversee and manage the combined endowment assets of the University and the Foundation. The pooled assets are combined for investment purposes and operated as a unitized pool known as the Consolidated Investment Fund (CIF). For the fiscal year ended June 30, 2006 the CIF had a rate of return of 11.9% net of all investment management, consultant and custody fees. In addition to the customary investment management expenses, an administrative allocation equivalent to .9% of the market value of the CIF is allocated from each participating fund in the CIF. The CIF is a well-diversified fund with an asset allocation consisting of approximately 27% U.S. equity, 27% international equity, 18% fixed income/cash, 1% private equity, 14% hedge funds and 12% real assets at June 30, 2006. Both the U.S and international equity markets performed well this past fiscal year with international equity again leading the way with a strong return of 24.6%, while U.S. equities returned 9.3%. The CIF finished the fiscal year with a total market value of approximately \$266.1 million, up from \$234.8 million at June 30, 2005.

Because the University and the Foundation recognize the need to provide a steady and reasonably predictable stream of income while protecting the real value of the principal of the endowment, the University and the Foundation have established a spending policy based on a twelve quarter moving average and a distribution rate in the range of 4% to 6%. For the year ended June 30, 2006, the spending distribution rate was set at 4.86% which provided over \$11.1 million to the various Schools, Colleges and Programs for spending in the 2006-07 fiscal year.



Consolidated Investment Fund

Capital Projects in Construction and Planning Fall 2006

PROJECTS IN CONSTRUCTION Barbara & Bill Richardson Pavilion

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This project is the first step in a master plan development that will entirely replace the aging hospital "in place" and build upon University Hospital's (UH) position as a nationally leading clinical teaching institution. The building site is directly west of UH along Lomas Blvd. The project will re-orient the patient entrance to the north from Yale Blvd along the flood control channel, creating a new entry plaza for UH, the Children's Hospital and the Cancer Research Treatment Center. The new facility will be six stories in height with a partial basement, providing approximately 395,000 sq ft. The building will contain an expanded emergency department, 72 critical care beds, and a Children's Hospital. The Children's Hospital will include 60 acute care beds, 60 newborn intensive, care unit beds, 20 pediatric intensive care unit beds, operating rooms, a children's emergency department, a birthing center and a well-baby nursery. The project budget is ~\$233M, financed with UH Bonds.

School of Architecture & Planning Building and College of Fine Arts & Design Library

The new School of Architecture and Planning facility will consolidate programs and resolve the lack of large classroom and auditorium space. The facility is located immediately east of the Bookstore in what was formerly short-term parking. The finished building will consist of 68,872 sq ft of design studios, seminar rooms, a 200-seat auditorium, classrooms, a gallery for student work, a resource center for technology instruction, student study and gathering space, a building shop, administrative and faculty offices and support space. It will be fully accessible to individuals with disabilities and provide a safe, centrally located environment for students who use the school's design studios 24 hours a day.

The Fine Arts, as identified in the UNM Strategic Plan, is a distinguished academic area ranking among the best in the country. An obviously critical component of the

Fine Arts division is its library, currently squeezed into a 13,000 sq ft space in the Center for the Arts. Located in the top floor of the School of Architecture & Planning Building, the new library's 29,474 sq ft contains space for collections (printed musical, electronic), individual and group study rooms, a public service classroom, administrative offices and support.

The total budget for both the above projects is ~\$28 7M, consisting of \$8.5M from NM State General Obligation Bonds, ~\$16.3M from UNM Bonds ~\$1.7M from UNM Instructional & General Equipment and Information Technology funds, and ~\$2.3M from private donations.



Domenici Education Center, Phase I

The UNM Health Sciences Center's primary mission is to educate and train New Mexico's next generation of health care professionals through leadership in providing innovative, collaborative education. New 🦣 🕷 medical education programs that are problem-based and multidisciplinary have changed the physical space needs for health sciences education. The 47,168 sq ft first phase of the Education Building will house electronically enhanced classrooms, a 300-seat auditorium, Learning Center, a new medical/legal bookstore, a food service and dining court for students, faculty and staff, and a health education museum. It will serve the School of Medicine, College of Nursing, College of Pharmacy and Diagnostic & Therapeutic Programs as well as provide services to the Law School. Landscaping in this project will be coordinated with the proposed Sculpture Garden of Healing. The project budget is \$16.6M with funding from the following sources: \$5M from State of NM Severance Tax Bonds; \$1M from UNM Bonds; ~\$6.3M from two US Health Resources & Services Administration grants; ~\$1.9M from a US Department of Energy Grant; \$1M from UNM Health Science Ctr Capital Funds and ~\$1.7M from UNM Instructional & General and Equipment. Renewal & Replacement funds.

Anderson School of Management Student Financial Services Center

This project fills the need for an educational and research center for students and faculty that stimulates interest in the fields of financial services and investment management through exposure to "real-world" investment activities. It promises to help attract high-quality students to ASM and increase the number of graduates who pursue careers in financial services. With faculty and outside professional supervision and interaction, participating students will serve as investment analysts/managers and share discretionary investment authority, over a student-managed investment fund. This project creates approximately 3,200 sq ft of new space and renovates 3,340 sq ft of existing space to house a new student investment center complete with a student financial events center. The project budget is ~\$1.7M: \$300,000 from UNM Minor Capital funds and ~\$1.4M from private donations.

Centennial Engineering Center

This new 140,000 sq ft facility takes a more comprehensive approach to critical space needs of the School of Engineering by demolishing and replacing Tapy Hall, Wagner Hall and the Engineering Annex with a building

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located and configured to provide connectivity with the existing engineering buildings (Farris, EECE and Mechanical Engineering). The facility will house the Departments of Civil Engineering, Chemical & Nuclear Engineering, and Computer Science as well as the Dean's administrative offices and the Engineering Student Programs Office. The Departments of Computer Science and Chemical & Nuclear Engineering are among the most research-active and fastest growing at the University. The project budget is ~\$42M, including proceeds from NM State Severance Tax Bonds and General Obligation Bonds, the NM State General Fund, UNM Bonds and institutional funds as well as private donations. Groundbreaking took place September 13, 2006.

Communications & Journalism Building Renovation

This project will renovate the existing 31,899 sq ft Communications & Journalism (C&J) Building on the south edge of Main Campus. The original building was constructed in 1948, with additions in 1959 and 1963.

Printing Services and a Copy Center were relocated to other facilities in 1999, releasing that space for instructional use. C&J has one of the largest enrollments in the College of Arts & Sciences. This project supports UNM criteria to establish programs that make the best use of available space in support of the University's programs and services. All major infrastructure components are to be upgraded including mechanical, electrical, plumbing and HVAC systems, roof, exterior windows, woodwork and stucco. Interior upgrades include offices, classrooms. broadcast and support spaces. The project budget is ~\$5.8M, including \$5M from UNM Bonds and ~\$800K from a 2006 State one-time Bldg Renewal & Replacement allocation. - 02.**M** and a brief faile particularly of

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Sevilleta Field Station Research Laboratory

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Since 1989 the UNM Department of Biology has operated a Long Term Ecological Research program in collaboration with the US Fish & Wildlife Service at a field station located on the Sevilleta National Wildlife Refuge 18 miles north of Socorro, NM. The Sevilleta Research Center supports ~70 scientists and students working on projects in botany, biology, geology, anthropology and conservation ecology. It also serves as a meeting facility for more than 30 conferences, workshops, retreats, field sessions and outreach activities per year.

Phase I of the project constructs 11,000 sq ft of wet and dry laboratory, research offices, classrooms and accompanying support space. Phase II adds another 8,800 sq ft of classroom, meeting room, a new formal entrance to the facility and accompanying support space. Overall, the project will significantly increase the amount of active research and educational space, upgrade and modernize the quality of the facilities and enhance the field station's infrastructure. The expanded facility will be capable of supporting ~ 200 scientists and students. and better positions the Center to compete for funding in emerging areas of environmental science and federal research initiatives. The field station is considered one of the top three ecological research facilities in the United States. The project budget is ~\$6.5M, funded by a US Fish & Wildlife Service Grant.

Manufacturing Training & Technology Center, Phase II: Clean Room Installation

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The Manufacturing Training & Technology Center in the Science & Technology Park was built in 1997 with 57,640 sq ft. A 1,530 sq ft clean room was completed in 2002. This project will expand facilities required to support the manufacturing technology training mission

of the Manufacturing Engineering Program. It is both a technical training and research facility. This project will complete 2,700 sq ft of existing space previously shelled for this purpose. Two bays of clean rooms and two bays of support chases will be installed, expanding the computer chip fabrication training facilities in the existing building. Existing equipment to fabricate computer chips will be refurbished and reinstalled. The project budget is ~\$3.4M funded with a \$1.3M US Economic Development Administration Grant, ~\$1.7M State General Obligation Bond proceeds and ~\$400K from a combination of State Severance Tax Bond proceeds, UNM Bonds and institutional funds.

Taos Phases III & IV, Classroom & Office Building and Infrastructure

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Growth in the Taos area remains among the fastest in the state, and enrollment at the Taos Campus is also rising steadily. This project responds to increased demands for educational services in this region and strengthens UNM's higher education and vocational education presence in northern New Mexico. Phases III & IV of Taos Campus development add 15,530 sq ft of classrooms for general and specialized instruction, shared faculty offices and support space, including the accompanying next increment of utility, infrastructure and site development. The project budget is ~\$7.8M, funded by Taos County Gross Receipts Tax and NM State General Obligation Bonds.

Valencia Vocational Careers and Advanced Technologies Regional Network Facility

Valencia County is one of the fastest growing communities in the state, and the UNM Valencia Campus Institutional Plan emphasizes growth to support the population in its service area and growth in enrollment. This project supports the branch campus core value of being a communitybased center for education, culture and technology. The Vocational Careers Facility is a new 11,738 sq ft building with a lecture hall, general and computer classrooms, a career center suite and associated support space. After reviewing a number of strategies for utilizing the ATRN funding, the Valencia Campus administration chose to support the Vocational Careers Center by building and equipping this building. Construction began in the spring of 2006 with completion expected in the spring of 2007. The project budget is \$1.9M, including \$500K in State General Obligation Bond proceeds, \$500K in Valencia County General Obligation Bond proceeds, and \$900K from the NM Higher Education Department and Governor Richardson's ATRN initiative.

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Projects in Design & Planning

Cancer Research & Treatment Center, Phase II UNM's Cancer Research & Treatment Center (CRTC) is the only academic health care facility in New Mexico dedicated to providing state-of-the-art cancer diagnosis and treatment services. In 1997, Phase I of the project completed construction of an 80,000 sq ft Cancer Research Facility on the North Campus. The CRTC became a National Cancer Institute (NCI) Designated Cancer Center in 2005, one of only 61 of the elite Regional Cancer Centers. UNM has been challenged by the NCI to improve the clinical facilities and demonstrate a stronger institutional commitment to cancer care. Outpatient adult oncology services at UNM are currently housed in the 1975-three-story CRTC building physically connected to University Hospital.

The new five-story, 141,000 sq ft Phase II facility will provide additional services to better serve New Mexico's unique tri-cultural population and to better care for the underserved. It is programmed to expand public education & outreach services, to encourage patient participation in clinical trials, and to increase clinical treatment space consistent with the NCI Designation. Significant features include a multidisciplinary clinic, an infusion suite, radiation oncology, a women's cancer screening & genetics counseling space, an integrative medicine area, PET/CT and other diagnostic imaging rooms, education space, conference and teaching space, and clinical trials offices. The site is adjacent to UH's Outpatient Surgery & Imaging Services (OSIS), just west of University Blvd. The project budget is ~\$53M, including UNM Bonds and institutional funds, NM Finance Authority Bonds, funds from both UH and CRTC, and NM State Severance Tax Bond proceeds and a General Fund appropriation. Construction is scheduled to begin in November 2006 with occupancy in November 2008.

South Campus Indoor Practice Facility

The Department of Athletics competes in the Mountain West Conference. Most schools in the conference have constructed indoor practice facilities for their intercollegiate teams, but UNM currently does not have such a facility. In order to remain competitive in the MWC, this facility will help attract quality athletes and assure a practice venue in inclement weather. It will serve all sports including football, softball, baseball, soccer and track. This project will enclose ~48,000 sq ft, enough to accommodate a regulation size football practice field. It will be located south of the existing 'Tow' Diehm Facility

to avoid replicating amenities such as showers, offices or meeting rooms currently available there. Construction will begin in November 2006 and be completed by September 2007. The project budget is \$6.1M, funded by the 2006 NM State Legislature with \$6M from the General Fund and \$100K from Severance Tax Bond proceeds.

Sciences & Mathematics Learning Center

This will be a facility of approximately 101,000 sq ft consisting of instructional space & support and teaching & research laboratories. The Departments of Mathematics & Statistics, Chemistry and Biology will anchor the facility supported by lab facilities for a range of science departments including computer-mediated environments and virtual labs for introductory science classes. This innovative building will provide much greater integration between teaching and research functions, and allow for cross-disciplinary interactions for both students and faculty.

Dedicating new resources to science and mathematics instruction will do a great deal to improve retention



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as well as address key bottlenecks in the departments' curricula. In addition to providing undergraduate teaching laboratories, this facility will also provide research laboratories for faculty in the Department of Biology. These labs will support the activities of many grant-supported investigators who do much to advance the overall level of training and technology at UNM. World-class faculty will be attracted to this building, thus providing rich opportunities for student training in modern research labs, and in undertaking interdisciplinary projects. The project budget is \$23M, to be funded from \$16M in UNM Bonds and \$7M in pending State General Obligation Bond proceeds.

- College of Education Replacement Building,
 Phase I

A portion of the Collège of Education facilities was demolished in 2004. This project will construct ~50,000 sq ft of replacement space for teaching, project development, and instructional laboratories. It is intended to be accompanied by additional phases to effect replacement and modernization of the College's facilities. The College of Education is scattered across nine buildings on campus; this facility will consolidate several programs into one building. To prepare new teachers for classrooms of the future, a facility is needed to house state-of-the-art teaching and laboratory spaces. UNM's College of Education trains 2/3 of the new teachers in the state. The project budget is \$8.5M, to be funded from \$5M in UNM Bonds and \$3.5M in pending State General Obligation Bond proceeds.

Gallup Health Careers Center, Phase II and Advanced Technologies Regional Network Facility

UNM Gallup's Administration has placed a top priority on responding to increasing community requirements for health care technicians. The Career Center for Health Occupations has in a very short time exceeded expected enrollments and requires expansion. This project will construct a new 15,000 sq ft facility of general classrooms, nursing, simulation and computer labs, offices and associated support space.

After reviewing a number of strategies for utilizing the ATRN Grant funding, the Administration chose to support a new Radiology Technology program by building and equipping a new radiology laboratory. The ATRN facility includes a new 1,200 sq ft building, housing the radiology laboratory, classroom, office, resource room and associated support space. The budget for both the above projects is ~\$5.7M, supported by \$1M from NM General Obligation Bonds, ~\$3.9M from McKinley, County, General Obligation, Bonds, ~\$650K from a combination of Building Renewal & Replacement and ADA funds, and a \$100K grant from the NM Higher Education Department and Governor Richardson's ATRN initiative.

Biology Building Expansion

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A Biology Department Facilities Master Plan completed in June 2004 indicated the need for additional space to consolidate research functions scattered throughout the existing facility and to integrate the new space with existing facilities already provided by other NIH-funded programs. This project will construct 32,000 sq ft of new space for the Biology Department, adjacent to the existing Castetter Hall. The expansion program provides new research laboratories for Biology faculty supported by federal grants in the area of genomics research, as well as offices for faculty and graduate students, animal care facilities to support research and teaching missions, and associated support space.

Genomics research, the building's core research theme, is one of the major growth areas in modern biology. Providing the appropriate facilities for faculty to excel in this area will create a rich variety of cutting-edge training opportunities for both undergraduate and graduate students. Excellent research facilities will also provide incentives to retain outstanding faculty, recruit new faculty and secure additional research funding, again providing the best possible instructors and facilities for our students, many of whom would be employed in the new research labs. The project budget is \$5.6M from UNM Bonds.

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Sponsored Programs

The University of New Mexico (UNM) is a Carnegie Doctoral-Granting Research University/Very High research activity (RU/VH) -- one of 96 nationwide. This high distinction is carried by 63 public and 33 private institutions. In order to be classified as such an institution, universities must offer a full range of baccalaureate programs, be committed to graduate education through the doctorate, give high priority to research, award 20 or more doctoral degrees each year and in the upper third of research expenditures compared to other doctoral granting universities.

During the 2005-06 fiscal year, federal and state agencies, industry, foundations and national laboratories provided \$298.4 million in contract and grant awards to UNM for sponsored projects ranging from engineering to medicine and education to the humanities.

The majority of contracts and grants, 59 percent, were awarded by federal agencies, while the remaining came from the following sources: State of New Mexico, 20 percent; industry, 6 percent; national laboratories, 2 percent; foundations, 2 percent; and other, 11 percent.



Among UNM's outstanding research units are the Center for High Technology Materials, the Center for Alcoholism, Substance Abuse and Addictions and the Center for Micro Engineered Materials.

The UNM Health Sciences Center's (HSC) key research programs focus on the health issues of New Mexicans. Major research units include the Cancer Research and Treatment Center, General Clinical Research Center, Center for Emerging Viruses and National Center for Genome Research.

During the 2005-06 fiscal year, HSC was awarded \$133.2 million to support its various research programs. In addition, HSC proposals for research support over the same period totaled more than \$253.9 million.

The UNM main campus (excluding HSC) and branch campuses, in fiscal year 2005-06, were awarded \$165.4 million to support various programs, and proposals for the same period totaled more than \$198.4 million.


Some research efforts at UNM during the fiscal year include:

Dr. Clifford R. Lyons, from the Department of Internal Medicine, Center for Infectious Diseases, received a \$12,503,859 award for "Tularemia Vaccine Development Team" from the National Institutes of Health. The mission of this project is to contribute to the development of the vaccine for Francisella Tularensis.

Dr. Phillip Eaton, Vice President for the Health Sciences Center, received a \$5,892,391 award for "HSC Education Building Phase II" from HRSA. This second phase award will be utilized to complete the construction of the Human Anatomy Lab, the Clinic Performance Center, student organization space, and a shelled second and third floors of the new 130,000 sq. ft. Education Building located on UNM's North Campus.

Dr. Paul Roth, Current Vice President for the Health Sciences Center received a \$3,084,022 award for the General Clinical Research Center, from the National Institutes of Health's Center for Research Resources. This is the 31st year for this grant that supports patient care, nursing salaries, and bionutrition.

Dr. Yoshio Okada, from the department of Neurology, received a \$2,164,667 award for "Integrative Program in CNS Pathophysiology Research."

Professor Karen Heller, Individual, Family and Community Education, received \$248,500 from the U.S. Department of Agriculture for "Curriculum Enhancement and Creation of a Multi-Purpose Foods Lab for a Nutrition/Dietetics Program."

Professor Sudhakar Prasad, Center for Advanced Studies, received \$501,565 from the Air Force Office of Scientific Research to study Advanced Concepts in Space Situational Awareness."

Professor Donald Natvig, Department of Biology, received \$2,048,413 from the U.S. Fish and Wildlife Services to complete construction of the Research and Education Laboratory at the Sevilleta Field Station.

Professor Philip May, Center for Alcoholism, Substance Abuse and Addictions, received \$1,422,828 from the National Institute on Alcohol Abuse and Alcoholism for "A Trial of FAS Prevention in American Indian Communities."

Campus Statistics

Degrees and Certificates

Main Campus	2001	2002	2003	2004	2005	2006
Certificate	-	-	-	-	-	15
Associate	8	3	-	10	12	7
Bachelor's	2,548	2,513	2,684	2,777	2,818	2,890
Master's	1,035	1,030	1,046	1,073	1,197	1,215
Education Specialist	20	7	10	14	5	26
Doctorate	174	189	162	195	205	181
Professional (Law, Medicine and						
Pharmacy)	249	286	246	243	250	250
Post Master's Certificate	10	8	7	4	8	6
Total	4,044	4,036	4,155	4,316	4,495	4,590

Fall Head Count

Main Campus	2001	2002	2003	2004	2005	2006
Professional (Law, Medicine and						
Pharmacy)	1,027	988	982	981	1,018	1,009
Undergraduate	18,718	19,166	19,866	20,274	20,358	19,973
Graduate	3,914	4,551	4,945	5,084	4,904	4,835
Total	23,659	24,705	25,793	26,339	26,280	25,817
Resident	20,353	21,307	22,227	22,731	22,838	22,583
Non-resident	3,306	3,398	3,566	3,608	3,442	3,234
Total	23,659	24,705	25,793	26,339	26,280	25,817
Total FTE	18,214	18,995	20,042	20,425	20,561	20,289

LIBRARIES

The University of New Mexico libraries support the research and teaching of the University, providing books, periodicals, microforms, recordings, slides, maps, government reports, manuscript collections and other materials. The General Libraries include business, education, fine arts, humanities, sciences, social sciences and technology. The Health Sciences Library supports the medical programs of the campus. The Law Library supports the law school.

Number of volumes:	June 2002	June 2003	June 2004	June 2005	June 2006
General Library	2,024,133	2,219,488	2,138,756	2,211,213	2,180,941
Law Library	232,940	236,448	238,034	239,970	242,306
Health Sciences Library and Informatics Center	175,998	174,135	171,577	171,223	165,507
Other main campus libraries	40,999	59,039	59,256	59,498	84,757
Total	2,474,070	2,689,110	2,607,623	2,681,904	2,673,511
Number of current periodical subscriptions:					
General Library	12,447	10,797	10,074	10,021	7,871
Law Library	3,040	3,065	3,249	3,239	3,296
Health Sciences Library and Informatics Center	1,988	2,059	1,576	1,734	1,790
Other main campus libraries	132	134	132	133	11
Total	17,607	16,055	15,031	15,127	12,968

Facilities

Net Square Footage											
Main Campus											
Space Use	2002	2003	2004	2005	2,006						
Classroom	314,553	314,018	314,018	306,808	312,203						
Common	2,924,648	3,005,474	3,005,474	3,162,069	3,225,952						
Gymnasium	362,857	363,034	363,034	363,034	363,123						
Laboratory	682,730	681,872	681,872	689,744	707,190						
Library	311,607	312,118	, 312,118	312,118	313,337						
Office	1,063,283	1,081,998	1,081,998	1,107,940	1,147,007						
Residential	826,826	826,826	826,826	826,826	826,826						
Shop	60,702	60,879	60,879	61,333	57,936						
Storage	252,751	272,220	272,220	285,297	285,535						
Theater	39,029	39,238	39,238	40,088	40,192						
Total	6,838,986	6,957,677	6,957,677	7,155,257	7,279,301						



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Moss Adams LLP

CERTIFIED PUBLIC ACCOUNTANTS 6100 UPTOWN BLVD NE SUITE 400 ALBUQUERQUE, NM 87110

Independent Auditors' Report

Board of Regents University of New Mexico and Mr. Domingo Martinez, CGFM New Mexico State Auditor

We have audited the accompanying basic financial statements of the University of New Mexico (University) and its aggregate discretely presented component units as of and for the year ended June 30, 2006, as listed in the accompanying table of contents. These basic financial statements are the responsibility of the University's management. Our responsibility is to express an opinion on these basic financial statements based on our audit. The basic financial statements of the University of New Mexico and its aggregate discretely presented component units for the year ended June 30, 2005, were audited by Neff + Ricci LLP, who combined with Moss Adams LLP as of January 1, 2006 and whose report dated September 23, 2005 expressed an unqualified opinion on those statements.

We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

As discussed in Note 1, the financial statements of the University are intended to present the financial position and changes in its financial position and cash flows, where applicable, of only that portion of the financial reporting entity of the business type activities information of the State of New Mexico that is attributable to the transactions of the University. They do not purport to, and do not present fairly the financial position of the State of New Mexico as of June 30, 2006, and the changes in financial position and its cash flows, where applicable, for the year then ended in conformity with accounting principles generally accepted in the United States of America. Board of Regents University of New Mexico and Mr. Domingo Martinez, CGFM New Mexico State Auditor

In our opinion, the basic financial statements of the University referred to above present fairly, in all material respects, the respective financial position of the University and of its discretely presented component units as of June 30, 2006, and the respective changes in financial position and cash flows for the year then ended in conformity with accounting principles generally accepted in the United States of America.

Management's Discussion and Analysis is not a required part of the basic financial statements but is supplementary information required by accounting principles generally accepted in the United States of America. We have applied certain limited procedures, which consisted principally of inquiries of management regarding the methods of measurement and presentation of the required supplementary information. However, we did not audit the information and express no opinion on it.

Our audit was conducted for the purpose of forming opinions on the financial statements the collectively comprise the University's basic financial statements. The accompanying Schedule of Pledged Revenue is presented for purposes of additional analysis and is not a required part of the basic financial statements. The Schedule of Pledged Revenue has not been subjected to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we express no opinion on it.

Mess adams LLP

Albuquerque, New Mexico September 22, 2006

THE UNIVERSITY OF NEW MEXICO Management's Discussion and <u>Analysis</u> Year Ended June 30, 2006

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The following discussion and analysis provides an overview of the financial position and activities of The University of New Mexico (University or UNM) as of and for the years ended June 30, 2006, 2005, and 2004. This discussion should be read in conjunction with the accompanying financial statements and notes. Management has prepared the basic financial statements and the related note disclosures along with this discussion and analysis. As such, the basic financial statements, notes and this discussion are the responsibility of University management.

This Management's Discussion and Analysis (MD&A) includes comparative financial information for fiscal years 2006, 2005, and 2004.

Using the Basic Financial Statements

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The <u>Statement of Net Assets</u> presents the assets, liabilities and net assets of the University as of the end of the fiscal year. The <u>Statement of Net Assets</u> is a point-in-time financial statement, the purpose of which is to give the readers of the financial statements a fiscal snapshot of the University. The statement presents end-of-year data concerning assets (current and non-current), liabilities (current and non-current), and net assets (assets minus liabilities).

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Changes in total net assets as presented on the <u>Statement of Net Assets</u> are based on the activity presented in the <u>Statement of Revenues</u>, <u>Expenses and Changes in Net Assets</u>. This statement begins with a presentation of the operating revenues received by the institution. Operating revenues are defined by Governmental Accounting Standards as revenues arising from an exchange (earned) transaction. In a public university, such as UNM, income from state government appropriations, although not earned, are heavily relied upon to pay operating expenses for almost all instruction and general programs. However, Governmental Accounting Standards defines state appropriation income as non-operating revenue, causing the presentation of a large operating loss on the first page of the <u>Statement of Revenues</u>, <u>Expenses</u>, and <u>Changes in Net Assets</u>. The operating loss is offset by non-operating revenues in the next section of this statement, Non-operating Revenues (Expenses).

The final statement presented is the <u>Statement of Cash Flows</u>. The <u>Statement of Cash Flows</u> presents the inflows and outflows of cash, summarized by operating, capital, financing and investing activities. The statement is prepared using the direct method of cash flows, and as such, presents gross rather than net, amounts for the year's activities

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NET ASSETS AND REVENUES, EXPENSES AND CHANGES IN NET ASSETS

The University of New Mexico Condensed Summary of Net Assets As of June 30

ASSETS Current assets Capital assets, net Non-current assets Total assets	\$ 	2006 514,241,683 806,823,830 470,463,069 1,791,528,582	\$ <u>\$</u>	2005 356,147,467 685,059,421 <u>499,323,049</u> 1,540,529,937	\$ <u>\$</u>	2004 328,536,013 619,744,846 <u>350,324,939</u> 1,298,605,798
LIABILITIES Current liabilities Non-current liabilities Total liabilities	\$ 	<u>2006</u> 191,771,545 558,963,488 750,735,033	\$ 	<u>2005</u> 175,835,553 442,218,767 618,054,320	\$ 	2004 149,843,367 256,058,129 405,901,496
NET ASSETS Invested in capital assets, net of related debt Restricted Unrestricted Total net assets	\$ <u>\$</u>	2006 327,229,723 404,498,599 309,065,227 1,040,793,549	\$ 	2005 337,266,626 322,679,171 262,529,820 922,475,617	\$ 	2004 399,373,814 253,871,236 239,459,252 892,704,302

Current Assets and Liabilities

Current assets include cash and other assets that are deemed to be consumed or convertible to cash within one year. The most significant current assets of the University are cash and cash equivalents and short-term investments consisting of certificates of deposit, U.S. Treasury Bills and other government-backed securities totaling \$324.8 million, \$171.9 million and \$176.6 million as of June 30, 2006, 2005, and 2004 respectively.

Current liabilities are generally defined as amounts due within one year, and include accounts payable, payroll accruals, and accrued compensated absences. The 9.0% increase in current liabilities for the year ended June 30, 2006 is primarily due to an increase in the third-party payor settlements, the payable for the construction of the Children's Hospital Critical Care Pavilion for the Hospital, and accounts payable for the University.

At June 30, 2006, the University's current ratio, the amount of current assets (\$514.2 million) available to cover current liabilities (\$191.7 million), was 2.68 to 1. At June 30, 2005, the University's current ratio, the amount of current assets (\$356.1 million) available to cover current liabilities (\$175.8 million), was 2.03 to 1. At June 30, 2004, the University's current ratio, the amount of current assets (\$328.5 million) available to cover current liabilities (\$149.8 million), was 2.19 to 1.

Capital and Debt Activity

Capital assets are the largest category of non-current assets, and are shown net of accumulated depreciation, at \$806.8 million and \$685.1 million as of June 30, 2006 and 2005, respectively. During fiscal year 2006, the largest capital asset additions were within Construction in Progress (CIP.) Overall, the University increased Construction in Progress by \$35 million in FY06, compared to a net decrease of \$24.7 million in FY05 and net increase in FY04 of \$23.8 million. The University's increase in CIP is primarily due to large expenditures for the Architecture and Planning Building, the HSC Education Building, and several other ongoing capital projects. In addition in FY06, the University capitalized the newly opened Business Center. Capital asset expenditures for Clinical Operations were \$91.8 million in 2006, an increase from \$50.1 million and \$26.5 million in 2005 and 2004 respectively. The Clinical Operations capital asset increase is primarily due to expenditures for the Children's Hospital and Critical Care Pavilion (CHCCP.) The CHCCP will be a seven-floor, 476,555 square-foot addition to the existing main UNM Hospital building.

UNM's long-term debt, bonds payable, totaled \$543.8 million and \$427.0 million at June 30, 2006 and 2005, respectively. The University sold \$125 million in bonds during fiscal year 2006 to fund renewal, renovation and construction for aging academic facilities including: 1) Architecture, 2) the Centennial Engineering Center, 3) the Communication and Journalism Building, and 4) the Science and Math Learning Center.



Infrastructure assets are defined as long-lived capital assets that normally can be preserved for a significantly greater number of years than most capital assets and that normally are stationary in nature. Examples of University infrastructure assets include domestic water systems, conduit and cabling systems, and the telecommunications systems. The following chart shows a breakdown of infrastructure assets at UNM.



Condensed Summary of Revenues, Expenses and Changes in Net Assets For the years ended June 30

OPERATING REVENUES BY MAJOR SOURCE

	<u>2006</u>	<u>2005</u>		<u>2004</u>
Tuition and fees	\$ 87,865,694	\$ 81,391,085	\$	70,982,097
Grants and contracts	266,650,439	274,217,939		260,969,370
Clinical operations	297,507,483	267,489,755		252,098,404
Patient services, net	113,156,291	98,661,956		96,799,689
Sales and services	98,222,173	92,795,507		88,051,718
Other operating revenues	25,051,331	3,044,241		4,497,634
Total operating revenues	<u>\$ 888,453,411</u>	<u>\$ 817,600,483</u>	<u>\$</u>	773,398,912

OPERATING EXPENSES BY MAJOR FUNCTION

		<u>2006</u>		<u>2005</u>		<u>2004</u>
Instruction	\$	197,389,591	\$	190,210,713	\$	183,114,756
Research		135,911,705		129,066,131		140,524,553
Public service		197,124,775		200,134,495		202,162,136
Academic support		36,048,570		35,404,185		31,035,954
Student services		21,157,649		19,772,727		19,037,246
Institutional support		49,970,332		47,429,109		33,024,150
Operations of plant		101,352,488		101,065,244		89,013,358
Student aid and activities		38,409,481		37,423,957		37,369,531
Intercollegiate athletics		24,909,654		22,902,131		20,241,058
Auxiliary enterprises		53,333,940		50,140,013		49,089,959
Other operating expenses		36,211,219		8,916,205		1,626,056
Clinical operations		370,905,430		337,943,748		321,143,416
Total operating expenses	<u>\$1</u>	,262,724,834	<u>\$1</u>	,180,408,658	<u>\$1</u>	<u>,127,382,173</u>

NON-OPERATING REVENUES (EXPENSES)

		<u>2006</u>		<u>2005</u>		<u>2004</u>
Appropriations	\$	271,940,479	\$	255,088,365	\$	250,765,002
Gifts		21,086,477		15,050,574		18,815,821
Clinical operations		75,738,725		75,124,711		80,370,698
Investment income		50,580,757		34,988,450		43,998,866
Capital gifts, grants and appropriations		65,431,767		17,770,252		16,964,264
Other non-operating expenses	_	7,811,150		(5,442,862)	_	(9,321,987)
Net non-operating revenues	<u>\$</u>	492,589,355	<u>\$</u>	392,579,490	<u>\$</u>	401,592,664
Income before other revenues, expenses, gains and losses	<u>\$</u>	118,317,932	<u>\$</u>	29,771,315	<u>\$</u>	47,609,403
Total increase in net assets	\$	118,317,932	\$	29,771,315	\$	47,724,403
Net assets at beginning of year Net assets at end of year	<u>\$</u> <u>\$1</u>	922,475,617	<u>\$</u> \$	892,704,302 922,475,617	<u>\$</u> \$	<u>844,979,899</u> 892,704,302

Revenues and Expenses

The presentation of revenues in the GASB reporting model requires that we exclude state and local appropriation income, 20% of total revenues for fiscal year 2006, 24% of total revenues for fiscal year 2005, and 24% for 2004, when calculating the financial results of operations. This presentation method results in an "operating loss." The operating loss is offset by "Non-operating Revenues (Expenses)" to arrive at an actual result of operations amount. The definition of "non-operating revenues" revolves around the concept of exchange versus non-exchange transactions. State and local appropriations, along with the Bernalillo County Mill Levy, are considered revenues from non-exchange transactions because they do not involve an exchange of value for value. Conversely, tuition income is defined as "operating revenue" since a student pays tuition (value) to receive an education (value). Other non-operating revenues are gifts and income from investing and capital activities.

Although State of New Mexico appropriations are considered non-operating revenues in the basic financial statements, the University uses these funds to support all instruction and general programs. The following chart depicts operating revenues (with state and local appropriations) by source (some categories have been combined).



The changes in operating revenues for the University over the fiscal years of 2004, 2005, and 2006 show increases of 5.7% for 2005 over 2004 and 8.7% for 2006 over 2005. Additional enrollment and tuition rate increases in academic functions of the University are:

	Fall 2005	Fall 2004	Fall 2003
Enrollment increase	(1.1)%	2.1%	5.5%
Tuition rate increases	9.9%	12.8%	4.5%
Peer institutions avg. rate increase	9.2%	12.6%	15.3%

The net non-operating revenues increase of 25.5% and a decrease of 2.6% for the years ended 2006 and 2005, respectively, are primarily driven by investment income from endowments. UNM has experienced investment rebound since market downturn in 2002.

The GASB reporting model allows public universities to present operating expenses in either a functional or natural format. UNM chose to present expenses on the Statement of Revenues, Expenses and Changes in Net Assets by the major functions of the University. The chart below shows the distribution of operating expenses by functional category (smaller categories have been combined).



The charts below show total expenses by natural category (excluding clinical operations and component units) for the years ended June 30, 2006, 2005, and 2004.



Change in Net Assets

The University's total change in net assets showed a net increase for 2006 and 2005. Total net assets (assets minus liabilities) are classified by the University's ability to use these assets to meet operating needs. Net assets that are restricted as to their use by sponsoring agencies, donors or other non-UNM entities are classified as either, "non-expendable" or "expendable." Restricted nonexpendable net assets are true endowments and State Land and Permanent Fund assets. Restricted expendable net assets are those generated by contracts or grants, gifts, and assets required to be set aside for debt service. The restricted net assets are further classified in general terms as to the function for which they must be used. Unrestricted net assets may be used to meet all operating needs of the University. Net Assets increased approximately \$118 Million in 2006. Some of the major reasons for the increase include a \$40 million increase in capital appropriations, \$20 million increase in building improvements, a \$15 million increase in investment income and \$9 million for the Rio Rancho land swap. The chart below shows the change in net assets by category for the fiscal years ended June 30, 2006 and 2005.



Budget Activity

Original budgets for each fiscal year are prepared many months in advance, based on prior year expenditure and revenue activity, and best estimates of projected activity for the budgeted year. During the year it is necessary to revise the original budgets so that the budget will more accurately reflect the current needs of the institution, and to reflect unanticipated events, both in the revenue and expenditure areas.

Some of the more significant changes to the original budget for fiscal year 2006 include an increase in the state appropriation budgets in the Research and Public Service categories due to the University's membership in the National Lambda Rail Association, and additional appropriations for patient care and cancer center equipment. The capital outlay revenue budget was also increased to reflect the institutional bond issue that occurred in fiscal year 2006. Student aid expenditure budget was increased to reflect additional lottery scholarships issued as a result of increased enrollment.

Overall, the University's change in net assets on a budgetary basis for unrestricted and restricted funds was over \$153 million dollars (see Schedule 1), with actual revenues less than budgeted revenues primarily due to less than budgeted contracts and grants received, and actual expenditures less than budgeted expenditures largely due to less than anticipated capital outlays occurring in fiscal year 2006.

Factors Impacting Future Periods

The web-based management information system, SungardSCT Banner, continues to move toward complete implementation. The Finance module was implemented in July, 2004. The Financial Aid module and the Student/Academic (STAC) module were substantially implemented in July, 2006, with full implementation expected by December, 2006. The Human Resources/ Payroll module will be fully implemented by July, 2007. All modules have been purchased. The enterprise-wide system, including peripheral products, is expected to cost in excess of \$60 million over the implementation period. The software cost associated with this system will be capitalized upon completion of implementation for each module, and depreciated over the estimated useful life of the system.

The Governmental Accounting Standards Board (GASB) issued Statement No. 45, Accounting and Financial Reporting by Employers for Post-employment Benefits Other Than Pensions in June, 2004. Although not effective until the fiscal year ended June 30, 2008, the statement is expected have a significant impact on the way certain employee benefits are presented in the Financial statements. GASB 45 requires that the University account for and report the cost and obligations related to post-employment healthcare and other non-pension benefits ("OPEB") and include specific disclosures regarding these OPEB plans. OPEB costs will be based on actuarially determined amounts that, if paid on an ongoing basis, generally would provide sufficient resources to pay benefits as they come due. GASB 45 may be applied prospectively and will not require the University to fund its existing OPEB plans. The University may establish its OPEB liability at zero as of the beginning of the initial year of implementation, although the unfounded liability will be required to be amortized over future periods. The University has not completed the process of evaluating the impact that will result from adopting GASB 45 and is therefore unable to disclose the effect that adopting the Statement will have on its financial statements.

Requests for Additional Financial Information

This financial report is designed to provide the executive and legislative branches of the State of New Mexico, the public, the University's retailers and vendors and other interested parties with a general overview of the financial position as of June 30, 2006 and 2005, and the results of its operations, cash flows, and variances from the budgets for the years then ended for the University of New Mexico.

If you have any questions about this report or need additional financial information, contact The University of New Mexico, Financial Services, 1700 Lomas NE, Suite 3100, MSC01 1300, Albuquerque, New Mexico 87131.



Statements of Net-Assets as of June 30, 2006 and 2005

BASIC FINANCIAL STATEMENTS

	 PRIMARY INSTITUTION			COMPONENT UNITS				
	2006		2005		2006		2005	
ASSETS	 							
Current assets								
Cash and cash equivalents (note 3)	\$ 94,066,929	\$	31,449,527	\$	41,625,592	\$	37,790,514	
Short-term investments (note 3)	230,776,365		140,436,796		4,697,642		4,087,635	
Accounts receivable, net (note 4)	70,557,420		75,640,052		1,568,157		1,056,152	
Patient receivables, net (note 4)	52,234,542		50,251,039		9,363,575		9,015,631	
Notes receivable, net (note 5)	4,117,985		4,589,046		-		-	
Due from component units	20,840,575		19,490,372		-		-	
Estimated third-party payor settlements	19,620,564		10,652,305		-		-	
Other receivables, net (note 4)	1,698,971		1,208,734		494,565		513,155	
Inventories	11,960,052		11,573,149		61,685		25,576	
Other current assets	 8,368,280		10,856,447		40,055		53,282	
Total current assets	\$ 514,241,683		356,147,467		57,851,271		52,541,945	
Non-current assets								
Notes receivable - non-current (note 5)	\$ 13,580,331	\$	12,428,418	\$	-	\$	-	
State Investment Council assets (note 3)	149,643,237		137,263,173		-		-	
Deferred bond issuance costs	6,757,425		7,319,918		-		-	
Investments (note 3)	294,466,891		336,381,461		91,258,299		78,387,083	
Due from The University of New Mexico	-		-		-		21,646	
Other non-current assets	6,015,185		5,930,079		4,698,495		6,454,246	
Capital assets, net (note 6)	 806,823,830		685,059,421		663,578		889,696	
Total non-current assets	\$ 1,277,286,899	\$	1,184,382,470	\$	96,620,372	\$	85,752,671	
Total assets	 1,791,528,582	\$	1,540,529,937	\$	154,471,643	\$	138,294,616	
LIABILITIES								
Current liabilities								
Accounts payable and accrued payroll (note 7)	\$ 63,944,332	\$	53,820,695	\$	362,712	\$	57,982	
Due to The University of New Mexico	-		-		20,840,575		19,490,372	
Estimated third-party payor liability	16,894,736		13,775,898		-		-	
Accrued compensated absences	29,106,738		27,020,416		-		-	
Other accrued liabilities (note 8)	31,624,634		34,083,213		-		-	
Deferred revenue (note 9)	31,775,402		32,616,969		2,232,789		2,390,056	
Bonds payable - current (notes 10 & 11)	9,232,741		10,905,000		-		-	
Other current liabilities	367,997		-		2,686,197		2,260,772	
Deposits and funds held for others	 8,824,965		3,613,362					
Total current liabilities	 191,771,545	\$	175,835,553	\$	26,122,273	<u> </u>	24,199,182	
Non-current liabilities (note 10)								
Bonds payable - non-current (notes 10 & 11)	\$ 543,789,681	\$	427,013,581	\$	-	\$	-	
Due to component units			21.646		-		-	
Student loan program (note 10)	15,173.807		15,183,540		-		-	
Deferred annuities payable			-		1,541.399		1,284,274	
Total non-current liabilities	\$ 558,963,488	\$	442,218,767	\$	1,541.399	\$	1,284,274	
Total liabilities	\$ 750,735,033	\$	618,054,320	\$	27,663,672	\$	25,483,456	
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EXHIBIT A

Statements of Net Assets as of June 30, 2006 and 2005

		PRIMARY INSTITUTION					COMPONENT UNITS				
			2006		2005		2006		2005		
NET ASS	ETS										
Inve	ested in capital assets, net of related debt	\$	327,229,723	\$	337,266,626	\$	35,072	\$	34,216		
Rest	tricted for:										
	Non-expendable:										
	State Investment Council		149,643,237		137,263,173		-		-		
	Scholarships		99,766,152		89,212,314		-		-		
	Grants, bequests and contributions		-		-		79,936,299		69,474,435		
	Expendable:										
	Scholarships		2,860,832		2,602,527		-		-		
	Grants, bequests and contributions		2,501,514		1,207,307		-		-		
	Debt service		12,515,663		24,777,024		-		-		
	Capital projects		137,211,201		66,941,987		-		-		
	Other		-		674,839		36,919,643		34,619,797		
Unre	estricted		309,065,227		262,529,820		9,916,957		8,682,712		
	Total net assets	\$	1,040,793,549	\$	922,475,617	\$	126,807,971	\$	112,811,160		

BASIC FINANCIAL STATEMENTS

Statements of Revenues, Expenses and (Changes in Net Assets for the years unded June 30, 2005 and 2005

	PRIMARY INSTITUTION			COMPONENT UNITS			
		2006		2005	2006		2005
OPERATING REVENUES							
Student tuition and fees (net of scholarship allowances of							
\$30,007,134 in 2006 and \$28,009,129 in 2005)	\$	87,865,694	\$	81,391,085	\$ -	\$	-
Patient services (net of provision for doubtful accounts of							
\$26,265,611 in 2006 and \$25,052,049 in 2005) (note 12)		113,156,291		98,661,956	-		-
Federal grants and contracts		202,635,488		211,457,901	-		-
State and local grants and contracts		25,112,169		25,221,702	-		-
State lottery scholarships		18,985,799		16,519,148	-		-
Non-governmental grants and contracts		19,916,983		21,019,188	21,788,318		20,470,044
Sales and services (net of scholarship allowances of		, ,		, ,			
\$5,216,304 in 2006 and \$4,800,699 in 2005)		98,222,173		92,795,507	15,115,602		15,023,664
Other operating revenues		25,051,331		3,044,241	5,227,701		4,538,747
Clinical operations							
University of New Mexico Hospital		262,276,318		234,710,253	-		-
University of New Mexico Psychiatric Center		17,965,466		15,753,335	-		-
University of New Mexico Children's Psychiatric Center		6,726,477		6,992,803	-		-
University of New Mexico Young Children's Health Center		-		612,851	-		-
University of New Mexico Carrie Tingley Hospital		10,539,222		9,420,513			
Total operating revenues	_\$	888,453,411	\$	817,600,483	\$ 42,131,621	\$	40,032,455
OPERATING EXPENSES							
Educational and general							
Instruction	\$	197,389,591	\$	190,210,713	\$-	\$	-
Research		135,911,705		129,066,131	-		-
Public service		197,124,775		200,134,495	-		-
Academic support		36,048,570		35,404,185	-		-
Student services		21,157,649		19,772,727	-		-
Institutional support		49,970,332		47,429,109	-		-
Operations and maintenance of plant		58,087,588		60,592,959	-		-
Depreciation expense		43,264,900		40,472,285	-		-
Student aid		32,941,565		32,253,107	-		-
Student activities		5,467,916		5,170,850	-		-
Intercollegiate athletics		24,909,654		22,902,131	-		-
Auxiliary enterprises		53,333,940		50,140,013	-		-
Other operating expenses		36,211,219		8,916,205	44,797,758		38,492,683
Clinical operations							
University of New Mexico Hospital		316,647,349		286,563,654	-		-
University of New Mexico Psychiatric Center		26,526,610		23,816,528	-		-
University of New Mexico Children's Psychiatric Center		12,622,969		12,070,665	-		-
University of New Mexico Young Children's Health Center		-		941,700	-		-
University of New Mexico Carrie Tingley Hospital		15,108,502		14,551,201			
Total operating expenses	_\$	1,262,724,834	\$	1,180,408,658	\$ 44,797,758	\$	38,492,683
Operating income (loss)	\$	(374,271,423)	\$	(362,808,175)	\$ (2,666,137)	\$	1,539,772

EXHIBIT B

Statements of Revenues, Expenses and Changes in Net Assets for the years ended June 30, 2006 and 2005

1. 水水市在市场 网络中国人名布尔 2. 街道人的人名 新名雷奇罗希德

	PRIMARY INSTITUTION			TUTION	COMPONENT UNITS			
		2006		2005	2006		2005	
NON-OPERATING REVENUES (EXPENSES)								
State appropriations	\$	267,899,383	\$	251,940,626	\$-	\$	-	
Local appropriations		4,041,096		3,147,739	-		-	
Gifts		21,086,477		15,050,574	-		-	
Investment income (note 3)		50,580,757		34,988,450	11,171,471		7,227,882	
Other non-operating revenues (expenses)		13,607,659		4,307,317	74,043		72,713	
Interest on capital asset-related debt		(15,206,365)		(8,055,922)	-		-	
Gain/(loss) on disposal of capital assets		9,409,856		(1,694,257)	-		-	
Clinical operations								
University of New Mexico Hospital		59,532,018		55,200,717	-		-	
University of New Mexico Psychiatric Center		5,394,180		8,668,850	-		-	
University of New Mexico Children's Psychiatric Center		5,724,400		5,287,407	-		-	
University of New Mexico Young Children's Health Center		-		329,600	-		-	
University of New Mexico Carrie Tingley Hospital		5,088,127		5,638,137	-		-	
Net non-operating revenues	\$	427,157,588	\$	374,809,238	\$ 11,245,514	\$	7,300,595	
Income before other revenues, expenses, gains and losses	\$	52,886,165	\$	12,001,063	\$ 8,579,377		8,840,367	
Capital appropriations	\$	55,528,717	\$	15,245,962	s -	\$	-	
Capital grants and gifts		9,903,050		2,524,290	-		-	
Contributions to permanent endowments				-	5,417,434		5,107,386	
Total other revenues	_\$	65,431,767	\$	17,770,252	\$ 5,417,434	\$	5,107,386	
Change in net assets	\$	118,317,932	\$	29,771,315	\$ 13,996,811	\$	13,947,753	
NET ASSEDS, where a second s			- 4 2		*******	i de la como de la como La como de la	· *** ******	
Net assets at beginning of year		922,475,617		892,704,302	112,811,160		98,863,407	
Net assets at end of year	\$	1,040,793,549	\$	922,475,617	\$126,807,971	\$	112,811,160	

BASIC FINANCIAL STATEMENTS

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Statements of Cash Flows for the years ended June 30, 2006 and 2005

		2006		2005
CASH FLOWS FROM OPERATING ACTIVITIES				
Tuition and fees	\$	87,128,137	\$	81,913,722
Grants and contracts		297,497,484		272,087,934
Insurance and patients		404,059,513		369,795,870
Sales and services		95,802,224		90,707,669
Payments to suppliers		(315,023,840)		(276,183,188)
Payments to employees		(670,774,511)		(642,070,421)
Payments for utilities		(33,886,525)		(31,312,870)
Payments for benefits		(124,938,043)		(119,973,829)
Payments for scholarships and fellowships		(37,354,318)		(41,322,348)
Loans issued to students		(1,497,310)		(2,724,161)
Collection of loans to students		(41,019)		3,652,970
Other receipts (payments)		(8,567,900)		(4,992,422)
Net cash used by operating activities	\$	(307,596,108)	\$	(300,421,074)
CASH FLOWS FROM NON-CAPITAL FINANCING ACTIVITIES				
State appropriations	\$	268.010.635	\$	253 400.034
Local appropriations	Ŷ	4.041.096	Ŷ	3.147.739
Bernalillo County mill levy		69.651.074		64 944 858
Tricore gross receipts tax refund		1.221.389		-
Cimarron settlement				4,478,249
William D. Ford direct lending receipts		-		45.581.323
William D. Ford direct lending disbursements		-		(45.581.323)
Gifts		21 086 477		15 050 574
Other non-operating receipts		31,577,383		10,863,470
Net cash provided by non-capital financing activities	\$	395,588,054	\$	351,884,924
CASH FLOWS FROM CAPITAL FINANCING ACTIVITIES				
Interest payments on bonds	\$	(19 373 849)	\$	(13 185 178)
Capital appropriations	Ψ	48 574 740	Ψ	16 392 266
Capital gifts and grants		13 344 184		4 378 770
Additions to bonds		126 082 415		189 247 429
Principal payments of bonds		(12,602,259)		(10, 385, 000)
Cash received from disposal of capital assets		2.195.000		1.787.000
Purchase of capital assets		(175, 327, 131)		(124,114,637)
Other receipts		2.048 452		333 003
Net cash provided (used) by canital financing activities		(15 058 448)	\$	64 453 653
the easi provided (used) of eaplier manening activities	Ψ	(15,050,-10)	_ Ф	0,755,055

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EXHIBIT C

Statements of Cash Flows for the years ended June 30, 2006 and 2005	在 6 单 重 新潮潮资	未把李州田电子来,在天 曹景等的新教学子,李序	严予 章 张 歌 歌 1	**************************************
		2006		2005
CASH FLOWS FROM INVESTING ACTIVITIES				
Proceeds from sale and maturities of investments	\$	690,100,585	\$	431,705,002
Purchase of investments		(719,003,490)		(584,631,104)
State investment income		9,140,303		9,027,095
Investment income		9,446,504		5,917,602
Net cash used by investing activities	\$	(10,316,098)	\$	(137,981,405)
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	\$	62,617,402	\$	(22,063,902)
Cash and cash equivalents - beginning of the year		31,449,527		53,513,429
Cash and cash equivalents - end of the year	\$	94,066,929	\$	31,449,527
NON-CASH INVESTING, CAPITAL, AND FINANCING ACTIVITIES				
Bond issuance costs deducted from bond proceeds	\$	-	\$	7,665,827
Assumption of deficit in net assets of ASAP as of 7/1/05	\$	(3,027,645)	\$	-
RECONCILIATION OF OPERATING LOSS TO NET CASH USED BY OPERATING ACTIVITIES				
Operating loss	\$	(374,271,423)	\$	(362,808,175)
Adjustments to reconcile operating loss				
to net cash used by operating activities				
Depreciation expense		61,188,691		57,035,677
Bad debt expense		79,996,592		93,502,970
Gain on retirement of assets		15,994		68,126
Changes in assets and liabilities				
Accounts receivable		(16,428,190)		(40,606,059)
Patient receivables		(55,577,691)		(68,294,640)
Estimated third-party payor settlements		(9,215,229)		2,159,971
Notes receivable		(680,852)		(1,114,396)
Inventories		(369,010)		(961,108)
Other assets		(610,530)		325,287
Due from component units		(1,271,057)		(3,067,130)
Accounts payable		7,598,223		9,739,770
Accrued expenses and compensated absences		(295,200)		3,265,226
Other current liabilities		(200,667)		-
Estimated third-party payor liability		3,365,808		6,313,188
Deferred revenue		(841,567)		4,020,219
Net cash used by operating activities	\$	(307,596,108)	\$	(300,421,074)

BASIC FINANCIAL STATEMENTS

Combining Statement of Net Assets as of June 30, 2006 - Discretely Presented Component Units

	University The University of Physician New Mexico Associates Foundation, Inc.				Anderson Schools of Management Foundation		
ASSETS				,			
Current assets	ድ	0.004.57(<u>ሰ</u>	24.052.952	٩	1 0 40 100	
Cash and cash equivalents	Э	9,804,576	3	24,953,853	\$	1,249,123	
Short-term investments		-		-		-	
Accounts receivable, net		-		-		907,734	
Other receivables, net		9,303,373		-		-	
Unier receivables, net		494,505		-		52 712	
Other current assets		-		-		15 222	
Total current assets	\$	19,662,716	\$	24,953,853	\$	2,224,902	
Non-current assets							
Investments	\$	818.877	\$	89,427,280	\$	1.010.111	
Other non-current assets	Ŷ	73,170	Ŷ	4.625.325	Ŷ		
Capital assets				.,,			
Equipment and furnishings, net		628,506		-		-	
Total non-current assets	\$	1,520,553	\$	94,052,605	\$	1,010,111	
Total assets	\$	21,183,269	\$	119,006,458	\$	3,235,013	
LIABILITIES							
Current liabilities							
Accounts payable and accrued expenses	\$	-	\$	4,999	\$	152,963	
Due to The University of New Mexico		19,122,283		161,239		1,232,763	
Deferred revenue		-		-		733,194	
Other current liabilities		2,060,986		305,957		-	
Total current liabilities		21,183,269	\$	472,195	\$	2,118,920	
Non-current liabilities							
Deferred annunities payable		-	\$	1,541,399	\$		
Total non-current liabilities		-	\$	1,541,399	\$		
Total liabilities		21,183,269		2,013,594	\$	2,118,920	
NET ASSETS							
Invested in capital assets, net of related debt	\$	-	\$	-	\$	-	
Restricted non-expendable		-		79,936,299		-	
Restricted expendable		-		36,502,569		358,657	
Unrestricted				553,996		757,436	
Total net assets	\$	-	<u>\$</u>	116,992,864	\$	1,116,093	

EXHIBIT D

Science & Technology Corporation @ UNM		University of New Mexico Lobo Club		I	Lobo Energy, Inc.		The University of New Mexico Alumni Association		Total	
¢	669 112	¢	2 002 407	¢	622 250	¢	2 224 081	¢	41 625 602	
Ъ	008,112	Э	2,093,497	Ъ	032,330	3	2,224,081	Ф	41,023,392	
	364 080		-		-		182 572		4,097,042	
	504,989				_		- 102,572		9 363 575	
	-		-		-		-		494,565	
	-		8.972		-		-		61.685	
	1,000		1,249		-		22,474		40,055	
\$	1,034,101	\$	2,216,580	\$	632,350	\$	7,126,769	\$	57,851,271	
\$	2.031		· _	\$	-		-	\$	91.258.299	
Ŷ			-	Ũ	-		-	*	4.698,495	
									,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
	32,116		2,956		-		-		663,578	
\$	34,147	\$	2,956	\$	-	\$	-	\$	96,620,372	
\$	1,068,248	\$	2,219,536	\$	632,350	\$	7,126,769	\$	154,471,643	
\$	76,929	\$	70,792	\$	56,205	\$	824	\$	362,712	
	229,193		95,097		-		-		20,840,575	
	-		700,309		-		799,286		2,232,789	
	319,254		-		-		-		2,686,197	
\$	625,376	\$	866,198	\$	56,205	\$	800,110	\$	26,122,273	
\$	-	\$	-	\$	-	\$	-	\$	1,541,399	
\$	-	\$	-	\$	-	\$	-	\$	1,541,399	
\$	625,376	\$	866,198	\$	56,205	\$	800,110	\$	27,663,672	
\$	32,116	\$	2,956	\$	-	\$	-	\$	35,072	
	-		-		-		-		79,936,299	
	-		30,367		-		28,050		36,919,643	
	410,756		1,320,015		576,145		6,298,609		9,916,957	
\$	442,872		1,353,338	\$	576,145		6,326,659	_\$	1 <u>26,807</u> ,971	

BASIC FINANCIAL STATEMENTS

Combining Statement of Net Assets as of June 30, 2005 - Discretely Presented Component Units

	1	University Physician Associates	T F	he University of New Mexico oundation, Inc.	The Robert O. Anderson Schools of Management Foundation		
ASSETS							
Current assets							
Cash and cash equivalents	\$	5,758,297	\$	22,029,315	\$	2,535,694	
Short-term investments		-		-		-	
Accounts receivable, net		-		-		718,900	
Patient receivables, net		9,015,631		-		-	
Other receivables, net		513,155		. –		-	
Inventories		-		-		14,836	
Due from The University of New Mexico		-		-		-	
Other current assets				-		25,650	
Total current assets	\$	15,287,083	_\$	22,029,315		3,295,080	
Non-current assets							
Investments	\$	566,750	\$	77,817,628	\$	· -	
Due from The University of New Mexico		-		-		-	
Other non-current assets		196,872		6,257,344		-	
Capital assets		-		-		-	
Equipment and furnishings, net		855,480		<u> </u>			
Total non-current assets	\$	1,619,102	\$	84,074,972	\$	-	
Total assets	\$	16,906,185	\$	106,104,287	\$	3,295,080	
LIABILITIES							
Current liabilities				1			
Accounts payable and accrued expenses	\$	-	\$	5,000	\$	(67,297)	
Due to The University of New Mexico		15,052,981		432,530		1,637,153	
Deferred revenue		-		· _		711,900	
Other current liabilities		1,853,204		271,506		-	
Total current liabilities	\$	16,906,185	\$	709,036	\$	2,281,756	
Non-current liabilities							
Due to The University of New Mexico	\$	-	\$	-	\$	-	
Deferred annuities payable		-		1,284,274		-	
Total non-current liabilities	\$		\$	1,284,274	\$		
Total liabilities	\$	16,906,185	\$	1,993,310	\$	2,281,756	
NET ASSETS							
Invested in capital assets, net of related debt	\$	-	\$		\$	-	
Restricted non-expendable	Ψ	-	4	69.474.435	*	-	
Restricted expendable		-		34 222 734		342,894	
Unrestricted		-		413,808		670 430	
Total net assets	.8			104.110.977		1.013.324	

EXHIBIT E

	Science & Technology Corporation @ UNM	U N	University of New Mexico Lobo Club		Lobo Energy, Inc.	The of I Alum	e University New Mexico ni Association		Total
\$	729 762	\$	4 347 604	\$	416 964	\$	1 972 878	\$	37 790 514
Ψ		Ψ	-	Ŷ	-	Ŷ	4.087.635	Ψ	4.087.635
	53,018		107,495		-		176,739		1,056,152
	- -		-		-		-		9,015,631
	-		-		-		-		513,155
	-		10,740		-		-		25,576
	-		-		-		-		-
	8,962		2,316		-		16,354		53,282
\$	791,742	\$	4,468,155	\$	416,964	_\$	6,253,606	_\$	52,541,945
\$	2,705	\$	-	\$	-	\$	-	\$	78,387,083
	-		-		21,646		-		21,646
	-		-		30		-		6,454,246
	-		-		-		-		-
	30,739		3,477		-	<u> </u>	-		889,696
<u>\$</u>	33,444	\$	3,477	\$	21,676	<u>\$</u>	-		85,752,671
	825,186	\$	4,471,632		438,640	<u> </u>	6,253,606	\$	138,294,616
\$	58,725	\$	36,834	\$	22,430	\$	2,290	\$	57,982
	31,173		2,336,535		-		-		19,490,372
	-		746,013		-		932,143		2,390,056
	136,062				-				2,260,772
	225,960	\$	3,119,382	\$	22,430	\$	934,433	_\$	24,199,182
\$	-	\$	-	\$	-	\$	-	\$	-
	-				-		-		1,284,274
\$		\$	-	\$	-	\$		\$	1,284,274
	225,960	\$	3,119,382	\$	22,430	\$	934,433	_\$	25,483,456
\$	30.739	\$	3.477	\$	-	\$	-	\$	34,216
•	,		-,	•	-	÷	-	•	69,474,435
	-		25,855		-		28,314		34,619,797
	568,487		1,322,918		416,210		5,290,859		8,682,712
\$	599,226	\$	1,352,250	\$	416,210	\$	5,319,173	\$	112,811,160

BASIC FINANCIAL STATEMENTS

Combining Statement of Revenues, Expenses and Changes in Net Assets for the year ended June 30, 2006 -Discretely Presented Component Units

	U 1 A	University Physician Associates	The N For	e University of Jew Mexico Indation, Inc.	The Robert O. Anderson Schools of Management Foundation		
REVENUES							
Operating revenues				ŗ			
Fees	\$	9,113,299	\$	-	\$	2,258,765	
Grants, bequests and contributions		-		17,792,682		288,521	
Operational support		-		3,554,481		-	
Other operating revenues		-		502,455		70,684	
Total operating revenues	\$	9,113,299	\$	21,849,618	\$	2,617,970	
EXPENSES							
Operating expenses							
General and administrative	\$	9,390,879	\$	3,940,696	\$	2,011,780	
Program expenses		-		-		457,406	
Distributions to the University of New Mexico		-		20,625,870		101,575	
Total operating expenses	\$	9,390,879	\$	24,566,566	\$	2,570,761	
Net operating income (loss)	_\$	(277,580)	\$	(2,716,948)		47,209	
NON-OPERATING REVENUES (EXPENSES)							
Investment income	\$	277,580	\$	10,181,401	\$	55,560	
Other non-operating revenues		-		-		-	
Gain on disposal of assets		-		-		-	
Total non-operating revenues	\$	277,580	\$	10,181,401	\$	55,560	
Income (loss) before other revenues	\$	<u> </u>	\$	7,464,453	\$	102,769	
Contributions to permanent endowments	\$	-	\$	5,417,434	\$	-	
Total other revenues	\$	-	\$	5,417,434	\$		
Change in net assets	\$	-	\$	12,881,887	\$	102,769	
Net assets at beginning of year	\$	<u> </u>	\$	104,110,977	\$	1,013,324	
Net assets at end of year	\$		\$	116,992,864	\$	1,116,093	

EXHIBIT F

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5 T Co	Science & Technology University of Corporation New Mexico @ UNM Lobo Club			Lobo Energy, Inc.		e University New Mexico ni Association		Total	
\$	2,736,585	\$	201,138 3,707,115	\$	805,815 - -	\$	-	\$	15,115,602 21,788,318 3 554 481
	-		7,753		-		1,092,328		1,673,220
\$	2,736,585	\$	3,916,006	\$	805,815	\$	1,092,328	\$	42,131,621
\$	2,917,449	\$	527,180 3,525,518	\$	659,217 - -	\$	65,354 574,834	\$	19,512,555 4,557,758 20,727,445
\$	2,917,449	\$	4.052.698	\$	659,217	\$	640,188	\$	44,797,758
\$	(180,864)	\$	(136,692)	\$	146,598	\$	452,140	\$	(2,666,137)
\$	24,510	\$	137,780	\$	13,337	\$	481,303 74,043	\$	11,171,471 74,043
\$	24,510	\$	137,780	\$	13,337	\$	555,346	\$	11,245,514
\$	(156,354)	\$	1,088	\$	159,935	\$	1,007,486	\$	8,579,377
¢		¢		¢		¢		¢	5 417 424
<u> </u>				\$		\$		\$	5,417,434
<u> </u>	(156,354)	<u> </u>	1,088	\$	159,935	\$	1,007,486	\$	13,996,811
\$	599,226	\$	1,352,250	\$	416,210	\$	5,319,173	\$	112,811,160
\$	442,872	\$	1,353,338	\$	576,145	\$	6,326,659	\$	126,807,971

BASIC FINANCIAL STATEMENTS

Combining Statement of Revenues, Expenses and Changes in Net Assets for the year ended June 30, 2005 – Discretely Presented Component Units

	University Physician Associates		The N For	e University of New Mexico undation, Inc.	The Robert O. Anderson Schools of Management Foundation		
REVENUES							
Operating revenues							
Fees	\$	8,852,678	\$	-	\$	2,175,118	
Grants, bequests and contributions		-		17,157,865		271,992	
Operational support		-		2,997,083		-	
Other operating revenues				475,585		46,418	
Total operating revenues	\$	8,852,678	\$	20,630,533	\$	2,493,528	
EXPENSES							
Operating expenses							
General and administrative	\$	8,863,986	\$	3,355,519	\$	1,918,220	
Program expenses		-		-		410,403	
Distributions to the University of New Mexico				15,379,340		152,525	
Total operating expenses	\$	8,863,986	\$	18,734,859	\$	2,481,148	
Net operating income (loss)	\$	(11,308)	\$	1,895,674	\$	12,380	
NON-OPERATING REVENUES (EXPENSES)							
Investment income	\$	11,308	\$	6,742,224	\$	31,722	
Other non-operating revenues		-		-		-	
Gain on disposal of assets		-		-		-	
Total non-operating revenues	\$	11,308	\$	6,742,224	\$	31,722	
Income (loss) before other revenues	_\$			8,637,898	\$	44,102	
Contributions to permanent endowments	\$	-	\$	5,107,386	\$	-	
Total other revenues	\$	-	\$	5,107,386	\$		
Change in net assets	\$	-	\$	13,745,284	\$	44,102	
Net assets at beginning of year	\$		\$	90,365,693	\$	969,222	
Net assets at end of year	\$		\$	104,110,977	\$	1,013,324	

EXHIBIT G

	Science & Technology Corporation @ UNM	Ur Na L	niversity of ew Mexico obo Club		Lobo Energy, Inc.	T of Alui	he University New Mexico nni Association		Total
\$	2,554,074	\$	230,263	\$	1,211,531	\$		\$	15,023,664
	-		3,040,187		-		-		20,470,044
	-		-		-		-		2,997,083
	2 554 074	\$	3 271 118		1 211 531	\$	1,018,993		40.032.455
\$	2,621,751	\$	520,009 1,083,578	\$	1,221,101	\$	90,491 539,225	\$	18,591,077 2,033,206
	-		2,336,535		-		-		17,868,400
\$	2,621,751	\$	3,940,122	\$	1,221,101	\$	629,716	\$	38,492,683
\$	(67,677)	\$	(669,004)	_\$	(9,570)	\$	389,277	\$	1,539,772
\$	1,504	\$	87,365	\$	7,979	\$	345,780 72,713	\$	7,227,882 72,713
		<u> </u>		<u>e</u>	7.070	<u>e</u>	419 402	¢	7 200 505
	1,304	_р 	87,305		1,919		410,495		7,300,395
\$	(66,173)	\$	(581,639)		(1,591)	\$	807,770	\$	8,840,367
\$		\$		\$		\$		\$	5,107,386
_\$	-	\$	-	\$		\$		\$	5,107,386
\$	(66,173)	\$	(581,639)	\$	(1,591)	\$	807,770	\$	13,947,753
\$	665,399	\$	1,933,889	\$	417,801	\$	4,511,403	\$	98,863,407
\$	599,226	\$	1,352,250	\$	416,210	\$	5,319,173	\$	112,811,160

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NOTES TO THE BASIC FINANCIAL STATEMENTS June 30, 2006 and 2005

(1) Creation and Purpose of Entity

The University of New Mexico (the University or UNM) was created by the Constitution of New Mexico, Sections 21-7-4 through 21-7-25, New Mexico Statutes Annotated, 1978 Compilation, under which it is responsible for providing the inhabitants of the State of New Mexico and such others as the Board of Regents may determine with the means of acquiring a thorough knowledge of the various branches of literature, science and the arts.

The University is part of the primary government of the State of New Mexico, and its financial data is included with the financial data in the State of New Mexico's Comprehensive Annual Financial Report. These financial statements present financial information that is attributable to the University and does not purport to present the financial position of the State of New Mexico.

(2) Basis of Presentation and Summary of Significant Accounting Policies

(A) Basis of Presentation

The University of New Mexico and certain component units present their financial statements in accordance with Governmental Accounting Standards Board (GASB) 34 – Basic Financial Statements and Management's Discussion and Analysis for State and Local Governments; GASB 35 – Basic Financial Statements and Management's Discussion and Analysis for Public Colleges and Universities; GASB 37 – Basic Financial Statements and Management's Discussion and Analysis for State and Local Governments: Omnibus; and GASB 38 – Certain Financial Statement Note Disclosures. This financial report provides an entity-wide perspective of the University's assets, liabilities, and net assets, revenues, expenses and changes in net assets, and cash flows.

The University has adopted Governmental Accounting Standards Board Statement No. 39, *Determining Whether Certain Organizations Are Component Units, an amendment of GASB Statement 14* (GASB 39). GASB 39 provides additional guidance to determine whether certain organizations for which the University is not financially accountable should be reported as discretely presented component units based on the nature and significance of their relationship with the University. As required by GASBs 14 and 39, these basic financial statements present the University and its component units, entities for which the University is considered to be financially accountable. These entities were selected for inclusion based on criteria as set forth in GASB 14 and 39. The entities are discretely presented in the financial statements as component units and include University Physician Associates; The University of New Mexico Foundation, Inc.; The Robert O. Anderson Schools of Management Foundation; Science & Technology Corporation @ UNM; The University of New Mexico Lobo Club; Lobo Energy, Inc; and The University of New Mexico Alumni Association. In addition, there are various component units operating as foundations that are not included in the financial statements as discretely presented component units due to materiality.

The University adopted GASB 40, *Deposit and Investment Risk Disclosures, an amendment of GASB Statement 3*. The GASB 40 statement addresses common deposit and investment risks related to custodial credit risk, credit risk, concentration of credit risk, interest rate risk and foreign currency risk. It also requires certain disclosures of investments that have fair values that are highly sensitive to changes in interest rates as well as identification of deposit and investment 3 disclosures generally referred to as category 1 and category 2 deposits and investments are eliminated. Disclosure of authorized investments or the requirements for reporting certain repurchase agreements and reverse repurchase agreements is still required.

The University's basic financial statements also include "clinical operations." Clinical operations include the two health care providers, the University of New Mexico Hospital (Hospital) and the University of New Mexico Psychiatric Center whose operations are summarized to be compatible with University reporting; these operations are not legally separate entities and therefore are operating as divisions of the University. Also included in clinical operations are organizations and certain programs that have purposes compatible with the University: University of New Mexico Children's Psychiatric Center, University of New Mexico Carrie Tingley Hospital and University of New Mexico Young Children's Health Center. The clinical operations, when combined with the University's School of Medicine, College of Nursing and College of Pharmacy, are referred to as the University of New Mexico Health Sciences Center and are included in the Primary Institution financial statement information.

NOTES TO THE BASIC FINANCIAL STATEMENTS June 30, 2006 and 2005

The component units, the Hospital, University of New Mexico Children's Psychiatric Center, University of New Mexico Carrie Tingley Hospital and the University of New Mexico Psychiatric Center, have separately audited financial statements, which can be obtained at their separate administrative offices. Addresses for the component units can be found in note 17.

(B) Basis of Accounting

For financial reporting purposes, the University is considered a special-purpose government engaged in businesstype activities. The financial statements are prepared using the economic resources measurement focus and the accrual basis of accounting in conformity with accounting principles generally accepted in the United States of America. Under the accrual basis, revenues are recognized when earned, and expenses are recorded when incurred. All significant intra-entity transactions have been eliminated.

The University has the option to apply all Financial Accounting Standards Board (FASB) pronouncements issued after November 30, 1989, unless FASB conflicts with GASB. The University has elected not to apply FASB pronouncements issued after the applicable date.

(C) Significant Accounting Policies

The preparation of basic financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make certain estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reported period. Actual results could differ significantly from those estimates.

<u>Cash and cash equivalents:</u> Cash and cash equivalents consist of all highly-liquid investments with original maturities of three months or less.

<u>Accounts receivable</u>: The University records student accounts receivable at the time a student registers for classes. Provisions for uncollectible student accounts are recorded to maintain an adequate allowance for probable losses.

<u>Patient receivables:</u> The Hospital and clinical operations receive payment for services rendered to patients under payment arrangements with payors which include (i) Medicare and Medicaid, (ii) other third-party payors including commercial carriers and health maintenance organizations, and (iii) others. The following summarizes the percent of gross patient receivables from all payors as of June 30:

	<u>2006</u>	<u>2005</u>
Medicare and Medicaid	39%	40%
Other third-party payors	38%	40%
Others	23%	20%
	100%	100%

<u>Investments</u>: Stocks, bonds and similar investments are recorded at fair value as determined by quoted market prices. Alternative investments are carried at estimatable fair value as determined by third-party administrators and University management.

The income from the University's interest in the State of New Mexico Permanent Fund, as well as the income derived from University lands under the control of the State of New Mexico Commissioner of Public Lands, is distributed monthly to the University.

The endowment spending policy provides that the total annual distribution of spendable income to each unit of the Consolidated Investment Fund (CIF), a unitized investment pool, shall not exceed six percent nor be less than four percent of the average market value of a unit of the CIF. The average market value of a unit will be based on the average unit values of the CIF for the preceding twelve quarters. The target annual distribution rate shall be five

NOTES TO THE BASIC FINANCIAL STATEMENTS June 30, 2006 and 2005

percent of the average unit market value. If, in any given twelve-quarter rolling period, total return is less than target annual distribution, actual distribution shall not be less than four percent of the average unit market value for such twelve-quarter rolling period. If in any twelve-quarter rolling period the distribution exceeds five percent of the current market value, then the actual distribution will be determined by the Consolidated Investment Fund Investment Committee.

Assets held by others, which are neither in the possession of nor under the control of the University, are not reflected in the accompanying basic financial statements. The most significant example is assets held by the Sandia Foundation from which UNM is entitled to 45% of the income, but has no title to the assets themselves. However, income earned on such assets upon which the University has claim is recorded in the accompanying basic financial statements.

<u>Inventories</u>: Inventories, consisting mainly of items held for resale, are principally stated at cost using the retail method, or market value if lower.

<u>Capital assets</u>: Capital assets are recorded at original cost, or fair value if donated. The University's capitalization policy for moveable equipment includes all items with a unit cost of \$5,000 or more, and an estimated useful life of greater than one year. The University includes software purchased with a piece of equipment in the cost of capitalization. This total cost is depreciated over the useful life of the equipment. In compliance with New Mexico Administrative Code, Title 2 Public Finance, Chapter 20 Accounting by Governmental Entities, Part 1 Accounting and Control of Fixed Assets of State Government, Section 9, software purchased for internal use is capitalized and depreciated. Renovations to buildings, infrastructure and land improvements that significantly increase the value or extend the useful life of the structure are capitalized. Routine repairs and maintenance are charged to operating expense in the year in which the expense was incurred. Depreciation is calculated using the straight-line method over the estimated useful lives of the assets, generally 50 years for buildings, 20 years for land improvements and infrastructure, 5 years for library books, and equipment ranges from 3 to 15 years. Loaned equipment from private and federal sources is not owned by the University, and is not an asset. This equipment is monitored by the Property Accounting Department and totals \$7,235,097 and \$7,648,803 at June 30, 2006 and 2005, respectively.

As an institute of higher education in existence for over 100 years, the University of New Mexico has acquired significant collections of art, rare books, historical treasures and other special collections. The purpose of these collections is for public exhibition, education or research in furtherance of public service rather than financial gain. They are protected and preserved, and subject to the Regents' policies regarding accessioning and de-accessioning. However, because of their invaluable and irreplaceable nature, these collections have not been capitalized.

<u>Bonds Payable:</u> The University has entered into interest rate swap agreements to modify variable rate interest payments into fixed rate interest payments on outstanding bonds payable. Other than the net interest expenditures resulting from these agreements, no amounts are recorded in the financial statements.

<u>Annual leave plan</u>: Employees are allowed to accumulate 252 hours of leave. Upon separation from employment for reasons other than retirement, death, or involuntary separation, employees are paid for unused accrued annual leave, not to exceed 168 hours. Upon separation of employment for reasons of retirement, death, or involuntary separation, employees (or their estates in case of death) are paid for unused accrued annual leave, not to exceed 252 hours.

<u>Sick leave plan</u>: Prior to 1984, the University's sick leave plan placed no limitation on the number of hours an employee could accumulate. When the plan was revised, the existing accumulation of hours was placed into separate pools and employees may be paid 28.5% of the value of those hours on retirement from the University.

Net assets: Are classified as follows:

Invested in capital assets, net of related debt represent the University's total investment in capital assets, net of outstanding debt related to those capital assets. To the extent debt has been incurred but not yet expended for capital assets, such amounts are not included as a component of invested in capital assets, net of related debt. Unspent bond proceeds for the University are approximately \$100,000,000 and \$6,000,000 at June 30, 2006 and

NOTES TO THE BASIC FINANCIAL STATEMENTS June 30, 2006 and 2005

2005, respectively. Unspent bond proceeds for the Hospital are \$80,016,900 and \$147,583,000 at June 30, 2006 and 2005, respectively.

Restricted net assets represent those operating funds on which external restrictions have been imposed that limit the purposes for which such funds can be used. Restricted *expendable* net assets are resources that the University is legally or contractually obligated to spend in accordance with imposed restrictions by third parties. Restricted *non-expendable* net assets consist of endowment and similar funds in which third parties have stipulated, as a condition of the gift instrument, that the principal is to be maintained inviolate and in perpetuity, and invested for the purpose of producing present and future income. The income generated from the principal may be expended or added to principal.

Unrestricted net assets consist of those operating funds over which the governing board retains full control to use in achieving any of its authorized purposes.

When an expense is incurred that can be paid using either restricted or unrestricted resources, the University's policy is to first apply the expense toward restricted resources, and then toward unrestricted resources.

Revenues: Are classified as operating or non-operating according to the following criteria:

Operating revenues include activities that have the characteristics of an exchange transaction, such as a) student tuition and fees, net of scholarship discounts and allowances; b) patient services; c) sales and services; and d) contracts and grants.

Non-operating revenues include activities that have the characteristics of non-exchange transactions, such as a) appropriations, b) gifts c) investment income, and d) mill levy. These revenue streams are recognized under GASB Statement No. 33 – *Accounting and Financial Reporting for Non-exchange Transactions.* Appropriations are recognized in the year they are appropriated, regardless of when actually received. Gifts are recognized when all applicable eligibility requirements have been met. Investment income is recognized in the period when it is earned. The Mill Levy is recognized in the period it is levied by Bernalillo County.

Student tuition and fee revenues and auxiliary enterprises revenues from students are reported net of scholarship allowances in the Statements of Revenues, Expenses and Changes in Net Assets. Scholarship allowances are the difference between the stated charge for goods and services provided by the University, and the amount that is paid by students and/or third parties making payments on students' behalf. To the extent that revenues from such programs are used to satisfy tuition and fees, other student charges, and auxiliary enterprises charges, the University has recorded a scholarship allowance.

Net patient revenues are recorded at the estimated net realizable amount due from patients, third-party payors, and others for services rendered, and a provision for doubtful accounts. Retroactive adjustments under reimbursement agreements with third-party payors are accrued on an estimated basis in the period the related services are rendered and adjusted in future periods as final settlements are determined.

Contractual adjustments resulting from agreements with various organizations to provide services for amounts that differ from billed charges, including services under Medicare, Medicaid, and certain managed care programs, are recorded as deductions from patient revenues. Accounts, when determined to be uncollectible, are charged against the allowance for doubtful accounts.

The hospital and clinical operations provide care to patients who meet certain criteria under its charity care policy without charge or at amounts less than its established rates. Because the hospitals do not pursue collection of amounts determined to qualify as charity care, they are not reported as net revenue.

Unexpended state appropriations do not revert to the state of New Mexico at the end of the fiscal year and are available to the University in subsequent years according to House Bill 2, Appropriations Act, Section J, found on Page 182.

NOTES TO THE BASIC FINANCIAL STATEMENTS June 30, 2006 and 2005

Deferred revenue consists primarily of advances from contracts and grants. Revenue is recognized to the extent that the underlying exchange transaction has occurred.

Expenses: Are classified as operating or non-operating according to the following criteria:

Operating expenses include activities that have the characteristics of an exchange transaction, such as a) employee salaries, benefits and related expense; b) scholarships and fellowships, net of scholarship discounts and allowances; c) utilities, supplies and other services; d) professional fees; and e) depreciation expenses related to university property, plant and equipment.

Non-operating expenses include activities that have the characteristics of non-exchange transactions, such as interest on capital asset-related debt and bond expenses that are defined as non-operating expenses by GASB 9 – Reporting Cash Flows of Proprietary and Non-expendable Trust Funds and Governmental Entities That Use Proprietary Fund Accounting, and GASB 34.

(D) Income Taxes

As an instrumentality of the State of New Mexico, the income generated by the University in the exercise of its essential governmental functions is excluded from federal income tax under Internal Revenue Code (IRC) section 115. However, income generated from activities unrelated to the exempt purpose of the University would be subject to tax under IRC section 511(a)(2)(B).

As part of a state institution of higher education, the income of the University of New Mexico Hospital, University of New Mexico Carrie Tingley Hospital, University of New Mexico Children's Psychiatric Center, University of New Mexico Psychiatric Center, and University of New Mexico Young Children's Health Center is generally excluded from federal and state income taxes under Section 115(1) of the Internal Revenue Code. However, income generated from activities unrelated to these entities' exempt purpose is subject to income taxes under Internal Revenue Code Section 511(a)(2)(B).

(E) Budgetary Process

Operating budgets are submitted for approval to the Board of Regents, the New Mexico Higher Education Department (HED) and the State Budget Division of the Department of Finance and Administration (DFA). Similarly, separate legislative budget requests are submitted to the Board of Regents, HED and the DFA for inclusion in the State of New Mexico Executive Budget for consideration of appropriations by the state legislature.

(F) Joint Powers Agreements

- (1) The Regents of The University of New Mexico and the Board of County Commissioners of the County of Bernalillo entered into a lease agreement for operation and lease of county healthcare facilities, effective July 1, 1999, amended June 2004 and terminating June 20, 2055. The purpose of the agreement is to operate and maintain UNM Hospital and UNM Psychiatric Center in accordance with the provisions of the Hospital Funding Act for the term of the agreement. The agreement continues in force until rescinded or terminated by either party. UNM acts as fiscal agent, reporting revenues and expenses, and accepting audit responsibility. There is no specific amount estimated since the agreement describes an on-going relationship.
- (2) The University has entered into Joint Powers Agreements with fifty-two (52) Municipal School Districts (the Districts) throughout the state of New Mexico. The University and the Districts have formed an organization for promoting their mutual educational purposes known as the New Mexico Research and Study Council. The purpose of this agreement is to create a mechanism by which the Districts can jointly and cooperatively undertake any activities in their function of providing public educational services. The University has entered into this agreement in order to facilitate such joint activities. This agreement remains in force until terminated. The Council may be terminated by a two-thirds vote of all current parties. UNM acts as fiscal agent, reporting revenues and expenses, and accepting audit responsibility. There is no specific amount estimated since the agreement describes an on-going relationship.

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NOTES TO THE BASIC FINANCIAL STATEMENTS June 30, 2006 and 2005

(3) The Regents of the University of New Mexico, the Regents of New Mexico State University and the Regents of the New Mexico Institute of Mining and Technology entered into an agreement to form the New Mexico University Research Consortium effective May 4, 2006. The purpose of the Research Consortium is to promote statewide cooperation in attracting research resources to New Mexico, managing them for the state's higher education research facilities, other New Mexico research facilities and for the benefit of New Mexico economic development. The agreement continues in force indefinitely. Any party may choose to withdraw with sixty days written notice. At such time, the remaining parties have forty-five days to agree to maintain the NMURC or the JPA will terminate on the date of withdrawal.

(G) Reclassifications

Certain 2005 amounts have been reclassified in order to be consistent with the 2006 presentation.

(H) Deferred Bond Issuance Costs

The deferred bond issuance costs represent the Hospital bond issuance cost for the FHA Insured Hospital Mortgage Revenue Bond. The bond issuance costs are amortized over the terms of the related indebtedness.

(3) Cash, Cash Equivalents and Investments

(A) Cash and Cash Equivalents Custodial Credit Risk

Deposits: University deposits are held in demand and time deposits at local financial institutions. State statutes require financial institutions to pledge qualifying collateral to the University to cover at least 50% of the uninsured deposits; however, the University requires more collateral as it considers prudent. All collateral is held in third-party safekeeping.

Collateralization of deposits: The carrying amounts of the primary institution's deposits with financial institutions at June 30, 2006 and 2005 were \$94,066,929 and \$31,449,527, respectively. The carrying amounts of the component units' deposits with financial institutions at June 30, 2006 and 2005 were \$41,625,592 and \$37,790,514 respectively. Bank balances are categorized as follows:

June 30, 2006			Depos Classifie	its ed as		
		Cash	Investm	ents		Total
Primary Institution						
Amount insured by the Federal Deposit Insurance Corporation	\$	248,555	\$	-	\$	248,555
University's name by their agent	<u>\$</u>	<u>115,895,740</u> <u>116,144,295</u>	<u>\$</u>		<u>\$</u>	115,895,740 116,144,295
Component Units						
Amount insured by the Federal Deposit Insurance Corporation	` \$	768,168	\$	-	\$	768,168
University's name by their agent		13,558,256		-		13,558,256
Amount exposed to custodial credit risk		8,714,791			_	8,714,791
·	\$	23.041.215	\$	-	\$	23.041.215

NOTES TO THE BASIC FINANCIAL STATEMENTS June 30, 2006 and 2005

Custodial Credit Risk—Deposits. Custodial credit risk is the risk that in the event of a bank failure, the government's deposits may not be returned. The University does have a custodial risk policy for deposits, which requires collateral in an amount greater than or equal to 50% of the deposit not insured by Federal Insuring Agencies. A greater amount of collateral is required when the University determines it is prudent. Collateral must meet State of New Mexico "Security of Public Money" standards and be held in third party safekeeping.

As of June 30, 2006, the primary institution's bank deposits were not exposed to custodial credit risk. As of June 30, 2006, \$8,714,791 of the component units' deposits were exposed to custodial credit risk as follows:

Uninsured and uncollateralized Uninsured and collateralized with securities he by pledging institution not in the University's Total	eld name	\$ 	8,083 631 8,714	,700 , <u>091</u> , <u>791</u>		
<u>June 30, 2005</u>			Depo: Classifi	sits ed as		
		Cash	Investn	nents		Total
Primary Institution						
Amount insured by the Federal Deposit Insurance Corporation Amount collateralized with securities held in the	\$	599,759	\$	-	\$	599,759
University's name by their agent		58,559,070	_15,050) <u>,000</u>	7	3,609,070
	<u>\$</u>	59,1 <u>58,829</u>	\$15,050) <u>,000</u>	<u>\$ 7</u>	4,208,829
Component Units						
Amount insured by the Federal Deposit Insurance						
Corporation Amount collateralized with securities held in the	\$	817,975	\$	-	\$	817,975
University's name by their agent		12,738,998		5,768	ļ	2,744,766
Amount exposed to custodial credit risk	_	3,953,690				3,953,690
	<u>\$</u>	17,510,663	<u>\$</u>		<u>\$ 1</u>	7,516,431

(B) Investment Custodial Credit Risk

Custodial Credit Risk—Investments. For an investment, custodial credit risk is the risk that in the event of the failure of the counterparty, the University will not be able to recover the value of its investments or collateral securities that are in the possession of an outside party. Mutual funds, external investment pools, and securities underlying reverse repurchase agreements are not exposed to custodial credit risk.

The University's custodial risk policy for short-term investments requires collateral in an amount greater than or equal to 50% of the deposit not insured by Federal Insuring Agencies. A greater amount of collateral is required when the University determines it is prudent. Collateral must meet State of New Mexico "Security of Public Money" standards and be held in third party safekeeping.

The University's custodial risk policy for investments allows investment in U.S. Treasury Securities, U.S. Government Agency Obligations, stocks, securities, bonds, money market funds, commercial paper, foreign currency, certificates of deposits, mutual funds is in accordance with Chapter 6, Article 10, Section 10 of the NMSA, 1978 Compilation. Investments are made through local financial institutions and are held in safekeeping in their trust departments. Repurchase agreements are collateralized by U.S. Treasury Securities with a market value of at least 102% of the principal and are used for overnight investment only. The investment of University endowment funds is in accordance with the laws of 1991, Chapter 69 of the State of New Mexico.

NOTES TO THE BASIC FINANCIAL STATEMENTS June 30, 2006 and 2005

During the year ended June 30, 2006, the University Board of Regents authorized a change to the University's investment policy in allowing the purchase of alternative investments. The investment policy states that a maximum of 20% of the entire investment portfolio can be comprised of alternative investments. These investments include the following hedge funds: equity, multi-strategy, and fund of funds.

A summary of the investments at June 30, 2006 and their exposure to custodial credit risk are as follows:

	Investments Exposed to Custodial Credit Risk			All Investments Regardless of Custodial Credit Risk Exposur		
	Uninsured, Unregistered, and held by Counterparty not in the University's Name	Uninsured, Unregistered, an held by Counterparty's Agent not in the University's Name	d	Fair Value		
Short-term investments						
Primary Institution						
U.S. Treasury Securities U.S. Government Agency Oblg.	\$ - -	\$	- 3	\$ 94,586,427 21,368,855		
Equity Money Market Commercial Paper	- - -		-	2,013,005 102,632,955 10,175,123		
Total short-term investments	<u>\$</u> _	<u>\$</u>		<u>\$ 230,776,365</u>		
Component Units						
Mutual Funds	\$ 4,447,642	\$	-	\$ 4,447,642		
Certificates of deposit	250,000			250,000		
Total short-term investments	<u>\$ 4,697,642</u>	\$		<u>\$4,697,642</u>		

June 30, 2006 and 2005

	Investments Exposed to Custodial Credit Risk			All Inv Custod	All Investments Regardless of Custodial Credit Risk Exposure		
	Unins Unreg held b Count not in Unive	ured, istered, and y erparty the rsity's name	Uninsured, Unregistered, and held by Counterparty's Agent not in the University's Name		Fair Value		
Long-term investments							
Primary Institution							
U.S. Government Agency Oblg.	\$	-	\$	- \$	85,137,718		
Money Market		-		_	6.799.430		
Bonds		-		-	31,300,234		
Equity Securities		-		-	134,860,766		
Repurchase Agreement		-		-	13,513,150		
Alternative Investments				<u> </u>	22,855,593		
Total long-term investments	<u>\$</u>		<u>\$</u>	i	\$294,466,891		
Component Units							
U.S. Treasury Securities	\$	818.877	\$	- \$	818 877		
U.S. Government Agency Oblg.	+	172,956	-	•	172,956		
Bonds		3,594,756		-	18,018,843		
Equity Securities		1,402,886		-	59,635,761		
Mutual Funds		1,565,378		-	1,565,378		
Money Market		36,263		-	36,263		
Alternative Investments		-		-	10,532,543		
Real Estate		477,678		:	477,678		
Total long-term investments	<u>\$</u>	8,068,794	<u>\$</u>	<u> </u>	91,258,299		

June 30, 2006 and 2005

A summary of the investments at June 30, 2005 and their exposure to custodial credit risk are as follows:

_	Investments Exposed to Custodial Credit Risk			estments Regardless of al Credit Risk Exposure
	Uninsured, Unregistered, and held by Counterparty not in the University's Name	Uninsured, Unregistered, and held by Counterparty's Agent not in the University's Name	ł	Fair Value
Short-term investments				
Primary Institution				
U.S. Treasury Securities U.S. Government Agency Oblg.	\$ - -	\$	- \$ -	86,743,528 19,590,726
Bonds Mutual Funds Foreign Currency Money Market Commercial Paper	- - - -		- - - -	5,512,121 23,203 20,808 3,244,504 10,251,906
Certificates of deposit	<u>-</u>			15,050,000
Total short-term investments	<u>\$</u>	<u>\$</u>	<u>- \$</u>	140,436,796
Component Units				
Mutual Funds Certificates of deposit	\$	\$	- \$ 	4,081,867 5,768
Total short-term investments	\$	\$	- \$	4,087,635

June 30, 2006 and 2005

	Investments Exposed to Custodial Credit Risk			All Investments Regardless of Custodial Credit Risk Exposure		
	Unins Unreg held b Count not in Unive	ured, istered, and by erparty the the irsity's name	Uninsured, Unregistered, and held by Counterparty's Agent not in the University's Name		Fair Value	
Long-term investments						
Primary Institution						
U.S. Government Agency Oblg.	\$	-	\$ -	\$	164,056,001	
Bonds Equity Securities Repurchase Agreement Corporate Asset and Mortgaged-backed securities		- - -			24,532,551 127,848,633 13,513,150 <u>6,431,126</u>	
Total long-term investments	<u>\$</u>		\$	<u>\$</u>	336,381,461	
Component Units						
U.S. Government Agency Oblg. Bonds Equity Securities Mutual Funds U.S. Treasury Securities Corporate Asset and Mortgaged-backed securities	\$	180,588 3,245,208 1,789,159	\$	\$	5,182,105 14,208,292 54,636,969 966,372 566,750 2,826,595	
Total long-term investments	<u>\$</u>	5,214,955	<u>\$</u>	<u>\$</u>	78,387,083	

NOTES TO THE BASIC FINANCIAL STATEMENTS June 30, 2006 and 2005

State Investment Council Assets: The University has an undivided interest in assets of the State of New Mexico Permanent Fund. The cost of such interest is \$111,472,294 and \$106,844,284 at June 30, 2006 and 2005, respectively. The fair value is \$149,643,237 and \$137,263,173 at June 30, 2006 and 2005, respectively. These investments are not categorized by custodial risk.

(C) Derivatives

The University does not have any derivative investments. The University does have a derivative investment policy for long-term investments.

(D) Credit Risk—Debt Investments. Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. The University is required to disclose credit ratings of debt investments in order to assess credit risk. U.S. obligations, investments explicitly guaranteed by the U.S. Government, and non-debt investments are excluded from this requirement. Currently, the University does have a policy that restricts long-term investments to specific investment ratings issued by nationally recognized statistical rating organizations. The policy states that cash equivalent reserves shall consist of interest bearing or discount instruments of the U.S. Government or agencies thereof; money market funds, corporate discounted instruments, corporate issued commercial paper rated at least A-1 by Standard & Poors and P-1 by Moody's, time deposits of U.S. or foreign banks, bankers acceptances and fully collateralized repurchase agreements. Both U.S. and foreign offerings are permissible. Exclusive of the U.S. government and agency issues, all other fixed income portfolio will be "A" or better rated as established by a recognized rating service and further reinforced by independent in-house credit analyses. In cases where the yield spread adequately compensates for additional risk, up to 25% of the market value of the fixed income portfolio may be in securities rated less than BBB or the equivalent.

THE UNIVERSITY OF NEW MEXICO NOTES TO THE BASIC FINANCIAL STATEMENTS June 30, 2006 and 2005

A summary of the investments at June 30, 2006 and their exposure to credit risk are as follows:

Short-Term Investments	Rating	Fair Value
Primary Institution		
Items not subject to credit risk: Equity Securities, and U.S. Treasury Securities	N/A	<u>\$ 96,599,432</u>
U.S. Government Agency Oblg.	Moody's Aaa S&P AAA Fitch F1+ Not Rated	7,393,750 2,533,600 10,542,396 899,109
Money Market Commercial Paper	Not Rated Not Rated	102,632,955 <u>10,175,123</u>
Items subject to credit risk		<u>\$134,176,933</u>
Total short-term investments		<u>\$230,776,365</u>
Component Units		
Items not subject to credit risk: Mutual Funds (Equity)	N/A	\$ 4,447,642
Certificates of Deposits	Not Rated	250,000
Items subject to credit risk		<u>\$ 250,000</u>
Total short-term investments		<u>\$4,697,642</u>

June 30, 2006 and 2005

Long-Term Investments	Rating	Fair Value
Primary Institution		
Items not subject to credit risk: Equity Securities, U.S. Treasury Securities, and U.S. Government Agency Oblg. (explicitly guaranteed)	N/A	<u>\$134,860,766</u>
U.S. Government Agency Oblg.	FitchF1+	85,137,718
Money Market	Not Rated	6,799,430
Bonds	MoodysAaa MoodysAA MoodysAA1	14,336,424 8,235,928 8,727,882
Repurchase Agreement	MoodysAa2	13,513,150
Alternative Investments	Not Rated	22,855,593

Items subject to credit risk

<u>\$159,606,125</u>

Total long-term investments

<u>\$294,466,891</u>

June 30, 2006 and 2005

Long-Term Investments	Rating	Fair Value
Component Units		
Investments not subject to credit risk: Equity Securities, U.S. Treasury Securities, U.S. Government Agency Oblg. (explicitly guaranteed), Mutual Eurode (Equity) and Real Estate	N/A	\$ 62 407 604
Funds (Equity) and Real Estate	N/A	\$ 62,497,694
U.S. Government Agency Oblg.	Not Rated	172,956
Money Market	Not Rated	36,263
Bonds	MoodysAaa MoodysAA MoodysAA1 Not Rated	6,606,654 3,795,363 4,022,070 3,594,756
Alternative Investments	Not Rated	10.532.543

Items subject to credit risk

28,760,605

Total long-term investments

<u>\$ 91,258,299</u>

June 30, 2006 and 2005

(E) Interest Rate Risk-Debt Investments. Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. Currently, the University does not have a specific policy to limit its exposure to interest rate risk.

A summary of the investments and their respective maturities at June 30, 2006 and their exposure to interest rate risk are as follows:

		Investment Maturities				
Short-Term Investments	Fair Value	Less than 1 Year	1-5 Years	6-10 Years	Greater Than 10 Years	
Primary Institution						
Items not subject to interest rate risk: U.S. Treasury Securities	<u>\$ 94,586,427</u>	<u>\$ 94,586,427</u>				
U.S. Government Oblg. Equity Money Market Commercial Paper	21,368,855 2,013,005 102,632,955 <u>10,175,123</u>	21,368,855 2,013,005 102,632,955 10,175,123				
Items subject to interest rate risk	<u>\$ 136,189,938</u>	<u>\$ 136,189,938</u>				
Total short-term investments	<u>\$ 230,776,365</u>	<u>\$ 230,776,365</u>				
Component Units						
Items not subject to interest rate risk: Mutual Funds (Equity)	<u>\$ 4,447,642</u>	<u>\$ 4,447,642</u>				
Certificates of Deposit	<u>\$ 250,000</u>	<u>\$ 250,000</u>				
Items subject to interest rate risk						
Total short-term investments	<u>\$4,697,642</u>	<u>\$4,697,642</u>				

June 30, 2006 and 2005

	_	Investment Maturities				
Long-Term Investments	. Fair Value	Less than 1 Vear	1-5 Years	6-10 Years	Greater Than 10 Years	
Primary Institution		i cai			iv itali	
Items not subject to interest rate risk: Equity Securities & Alternative Investments	\$ <u>157,716,359</u>					
U.S. Government Agency Oblg. Bonds Money Market Repurchase Agreement	85,137,718 31,300,234 6,799,430 13,513,150	81,477,718 6,799,430 <u>13,513,150</u>	3,660,000	31,300,234	<u>-</u>	
Items subject to interest rate risk	<u>\$ 136,750,532</u>	<u>\$ 101,790,298</u>	<u>\$ 3,660,000</u>	<u>\$ 31,300,234</u>	<u>\$</u>	
Total long-term investments	<u>\$ 294,466,891</u>					
Component Units						
Items not subject to interest rate risk: Equity Securities , Alternative Investments, Mutual Funds (Equity) and Treasury Securities	<u>\$ 73,030,237</u>					
U.S. Government Agency Oblg. Bonds	172,956 18,018,843	90,026	76,050 290,487	96,906 14,641,214	2,997,116	
Money Market	36,263	36,263	<u>-</u>		<u> </u>	
Items subject to interest rate risk	<u>\$ 18,228,062</u>	<u>\$ 126,289</u>	<u>\$ </u>	<u>\$ 14,738,120</u>	<u>\$ 2,997,116</u>	
Total long-term investments	<u>\$ 91,258,299</u>					

NOTES TO THE BASIC FINANCIAL STATEMENTS June 30, 2006 and 2005

(F) Concentration of Credit Risk—Investments. Concentration Risk is the risk of loss attributed to the magnitude of a government's investment in a single issuer. Investments in any one issuer that represent 5% or more of all total investments including components unit investments are considered to be exposed to concentrated credit risk and are required to be disclosed. Investments issued or explicitly guaranteed by the U.S. government and investments in mutual funds, external investment pools, and other pooled investments are excluded from this requirement. For long-term investments, the University does have a policy to limit its exposure to concentrated credit risk. It states that investments shall be diversified with the intent to minimize the risk of large investment losses. Consequently, the portfolio will be constructed and maintained to provide prudent diversification with regard to the concentration of holdings in individual issues, corporations or industries.

The University's exposure to concentrated credit risk for the primary institution and component units is \$106,679,529 which is invested in FNMA U. S. Government mortgage-backed securities. This investment is 17.17% of the total long term and short investments held. FNMA investments are implicitly guaranteed by the U.S. Government.

(G) Foreign Currency Risk—Investments and Deposits. Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment or a deposit. Currently, the University does have a long-term investment policy that limits its exposure to foreign currency risk.

A summary of the investments exposed to foreign currency risk by currency, their respective values at June 30, 2006, and their percentage of total investments follows:

Investment Type	Foreign Currency	Amount	<u>% of Total</u> Investments
Primary Institution			
Total Foreign Currency Investments		<u>\$</u>	
Non-Foreign Currency Investments		<u>\$.525,243,256</u>	100%
Total short-term and long- term investments		<u>\$ 525,243,256</u>	100%
Component Units			
Total Foreign Currency Investments		<u>\$</u>	
Non-Foreign Currency Investments		<u>\$_95,955,941</u>	100%
Total short-term and long- term investments		<u>\$ 95,955,941</u>	100%

June 30, 2006 and 2005

(H) Investment Income (Loss)

At June 30, 2006 and 2005, investment income (loss) consists of the following:

Primary Institution investment income (loss) Investment revenue:	<u>2006</u>	2005
Investment income	\$ 14,473,627	\$ 8,388,583
State Investment Council Permanent Fund distribution	9,140,303	9,027,095
Realized gains: State Investment Permanent Fund	12,380,064	7,876,592
Realized gains (losses): Endowments – Common Investment Fund Non-Endowment Investments	27,451,348 26,559	5,545,374
Unrealized gains (losses): Endowments – Common Investment Fund Non-Endowment Investments	(11,727,742) (1,163,402)	4,150,806
	<u>\$_50,580,757</u>	<u>\$_34,988,450</u>

Component Units investment income

<u>\$ 11,171,471</u> <u>\$ 7,227,882</u>

NOTES TO THE BASIC FINANCIAL STATEMENTS June 30, 2006 and 2005

(4) Accounts Receivable, Patient Receivables and Other Receivables

Accounts receivable, patient receivables and other receivables are shown net of allowances for doubtful accounts in the accompanying Statements of Net Assets. At June 30, 2006 and 2005, receivables consisted of the following:

	<u>2006</u>	<u>2005</u>
Primary Institution accounts receivable, net		
Contracts and grants	\$ 39,273,297	\$ 53,371,011
HSC health services	3,347,215	2,632,073
Sales and services	11,810,632	12,022,071
Auxiliaries	7,813,932	8,040,497
Tuition and fees	5,653,305	4,964,404
State of New Mexico bonds	11,276,875	4,322,899
Other	4,970,125	25,299
	\$ 84,145,381	\$ 85,378,254
Less: Allowance for doubtful accounts	(13,587,961)	(9,738,202)
	\$ 70,557,420	\$ 75,640,052
	• ••••••••	• • • • • • • • • • • • • • • • • • •
Component Units accounts receivable, net	<u>\$ 1,568,157</u>	<u>\$ 1,056,152</u>
Primary Institution patient receivables, net		
Patient receivables	\$ 151.348.552	\$ 164.862.741
Less: Allowance for doubtful accounts	(99.114.010)	(114.611.702)
	\$ 52 234 542	\$ 50 251 039
	<u>\$</u>	<u>\$ 00,201,007</u>
Component Units patient receivables, net	<u>\$ 9,363,575</u>	<u>\$ 9,015,631</u>
Primary Institution other receivables		
Bernalillo County Treasurer	\$ 1.453.396	\$ 1.007.494
Other receivables	245 575	201 240
	<u>\$ 1698971</u>	\$ 1 208 734
	<u>. 1,070,771</u>	<u>\$ 1,200,754</u>
Component Units other receivables, net	<u>\$ 494,565</u>	<u>\$ 513,155</u>

(5) Notes Receivable

Current notes receivable are shown net of allowance for doubtful accounts in the accompanying Statements of Net Assets. At June 30, 2006 and 2005, notes receivable consisted of the following:

	<u>2006</u>	<u>2005</u>
Primary Institution notes receivable, net		
Current notes receivable		
Student loans	\$ 4,117,985	\$ 4,599,498
Allowance for doubtful accounts	_	(10,452)
	<u>\$_4,117,985</u>	<u>\$_4,589,046</u>
Non-current notes receivable		
Student loans	<u>\$ 13,580,331</u>	<u>\$ 12,428,418</u>

NOTES TO THE BASIC FINANCIAL STATEMENTS June 30, 2006 and 2005

Federal Perkins Loans make up approximately 71% and 79% of the student loans at June 30, 2006 and 2005, respectively. Under this program, the federal government provides funds for approximately 75% of the total contribution for student loans, with the University providing the balance. Under certain conditions such loans can be forgiven at annual rates of 10% to 30% of the original balance up to maximums of 50% to 100% of the original loan. The federal government reimburses the University 10% for the amounts cancelled on loans originated prior to July 1, 1993 under the Federal Perkins Loan Program.

June 30, 2006 and 2005

(6) Capital Assets (in thousands)

	Year Ended June 30, 2006						
	Begi	inning			,		Ending
	<u>Bal</u>	ance	Additions	<u>Transfers</u>	<u>Retirements</u>	Ī	Balance
University capital assets not being depreciated							
Land	\$	24,988	38	-	_	\$	25,026
Construction in-progress		<u>21,662</u>	73,344	(38,217)			56,789
	<u>\$</u>	46,650	73,382	(38,217)		<u>\$</u>	81,815
University depreciable capital assets							
Land improvements	\$	37,586	-	-	(36)	\$	37,550
Infrastructure		81,298	-	19,944	-		101,242
Buildings	5	59,841	494	18,273	(1,993)		576,615
Equipment and furnishings	2	25,835	16,510	-	(10,762)		231,583
Library books	1(<u>05,105</u>	3,846		(807)		108,144
Total depreciable capital assets	\$1,00	09,665	20,850	38,217	(13,598)	\$	1,055,134
Less: Accumulated depreciation for							
Land improvements	\$ (2	25,722)	(1,267)	-	11	\$	(26,978)
Infrastructure	(2	23,010)	(4,837)	-	-		(27,847)
Buildings	(21	0,679)	(14,764)	-	268		(225,175)
Equipment and furnishings	(15	57,015)	(17,761)	-	10,366		(164,410)
Library books	(9	95,186)	(4,636)		758		(99,064)
Total accumulated depreciation	<u>\$ (51</u>	1,612)	(43,265)		11,403	<u>\$</u>	(543,474)
University depreciable capital assets, net	<u>\$ 4</u>	<u>98,053</u>	<u>(22,415)</u>	38,217	(2,195)	<u>\$</u>	511,660
Capital asset summary							
University capital assets not being depreciated	\$	46,650	73,382	(38,217)	-	\$	81,815
University depreciable capital assets at cost	1,00	09,665	20,850	38,217	(13,598)		1,055,134
University total cost of capital assets	\$1.05	56,315	94,232	-	(13,598)	\$	1,136,949
Less: Accumulated depreciation	(47	74,709)	(40,756)	286	11,138		(504,041)
Less: Accumulated depreciation - Auxiliaries	(3	86,903)	(2,509)	(286)	265		(39,433)
University capital assets, net	<u>\$ 5</u> -	44,703	50,967		(2,195)	<u>\$</u>	593,475
Clinical Operations capital assets	\$ 3	00,682	91,758	-	(827)	\$ [.]	391,613
Less: Accumulated depreciation	_(16	50,326)	(18,290)		352		(178,264)
Clinical Operations capital assets, net	\$ 1	40,356	73,468	-	(475)	\$	213,349
Primary Institution capital assets, net	<u>\$6</u>	<u>85,059</u>	124,435		(2,670)	<u>\$</u>	806,824
Component Units capital assets, net	<u>\$</u>	890	(226)			\$	664

NOTES TO THE BASIC FINANCIAL STATEMENTS June 30, 2006 and 2005

(6) Capital Assets (in thousands)

	Year Ended June 30, 2005						
	Be	ginning				F	Ending
	B	<u>alance</u>	Additions	<u>Transfers</u>	<u>Retirements</u>	B	alance
University capital assets not being depreciated							
Land	\$	24,988	-	-	-	\$	24,988
Construction in-progress		46,390	14,328	(39,056)			21,662
	<u>\$</u>	71,378	14,328	(39,056)		<u>\$</u>	46,650
University depreciable capital assets							
Land improvements	\$	37,462	124	-	-	\$	37,586
Infrastructure		66,767	13,183	1,348	-		81,298
Buildings		507,806	17,935	37,708	(3,608)		559,841
Equipment and furnishings		212,148	22,883	-	(9,196)		225,835
Library books		99,511	5,594				105,105
Total depreciable capital assets	\$	923,694	59,719	39,056	(12,804)	\$1	,009,665
Less: Accumulated depreciation for							
Land improvements	\$	(24,422)	(1,300)	-	-	\$	(25,722)
Infrastructure		(19,354)	(3,656)	-	-		(23,010)
Buildings	()	199,029)	(14,126)	-	2,476	(210,679)
Equipment and furnishings	(148,908)	(16,648)	-	8,541	(157,015)
Library books		(90,444)	(4,742)				(95,186)
Total accumulated depreciation	<u>\$(</u> 4	482,157)	_(40,472)		11,017	<u>\$ (</u>	511,612)
University depreciable capital assets, net	<u>\$</u>	441,537	<u> 19,247</u>	39,056	(1,787)	_\$	498,053
Capital asset summary							
University capital assets not being depreciated	\$	71,378	14,328	(39,056)	-	\$	46,650
University depreciable capital assets at cost		923,694	59,719	39,056	(12,804)	_1	,009,665
University total cost of capital assets	\$	995,072	74,047	-	(12,804)	\$1	,056,315
Less: Accumulated depreciation	(4	447,767)	(37,114)	-	10,172	(474,709)
Less: Accumulated depreciation - Auxiliaries		(34,390)	(3,358)		845	`	(36,903)
University capital assets, net	<u>\$</u>	<u>512,915</u>	33,575		(1,787)	<u>\$</u>	544,703
Clinical Operations capital assets	\$	250,679	50,128	-	(125)	\$	300,682
Less: Accumulated depreciation	C	143,849)	(16,533)	-	56	(160,326)
Clinical Operations capital assets, net	\$	106.830	33.595		(69)	\$	140.356
Primary Institution capital assets, net	\$	619,745	67.170	-	(1.856)	\$	685.059
• · · · · · · · · · · · · · · · · · · ·						-	
Component Units capital assets, net	<u>\$</u>	1,184	(294)			\$	890

The University capitalizes interest expense incurred during the period an asset is being prepared for its intended use. For the years ended June 30, 2006 and 2005, the University capitalized interest expense of approximately \$464,000 and \$2,452,000 respectively. The Hospital capitalized interest expense of approximately \$3,857,000 and 1,761,000 for the years ended June 30, 2006 and 2005.

NOTES TO THE BASIC FINANCIAL STATEMENTS June 30, 2006 and 2005

(7) Accounts Payable and Accrued Payroll

At June 30, 2006 and 2005, accounts payable and accrued payroll consisted of the following:

	<u>2006</u>	<u>2005</u>
Primary Institution accounts payable		
Trade payables	\$12,153,446	\$10,677,410
Clinical Operations – trade payables	36,072,792	26,284,903
Accrued Payroll and benefits	6,566,988	10,586,919
Clinical Operations - accrued payroll and benefits	9,151,106	6,271,463
	<u>\$63,944,332</u>	<u>\$53,820,695</u>
Component Units accounts payable	<u>\$ 362,712</u>	<u>\$ 57,982</u>

(8) Other Accrued Liabilities

At June 30, 2006 and 2005, other accrued liabilities consisted of the following:

	<u>2006</u>	<u>2005</u>
Primary Institution other accrued liabilities		
Employer/Employee – payroll tax liability	\$15,810,929	\$17,464,211
Clinical Operations – payroll tax liability	7,698,866	8,864,899
Student balances	-	990,641
Utilities	1,272,588	1,105,779
Bond interest	1,355,151	931,994
Other	5,487,100	4,725,689
	<u>\$31,624,634</u>	\$34,083,213

(9) Deferred Revenue

At June 30, 2006 and 2005, deferred revenue consisted of the following:

	<u>2006</u>	<u>2005</u>
Primary Institution deferred revenue		
Contracts and grants	\$ 28,289,492	\$ 26,826,744
Prepaid tuition and fees	2,158,204	2,244,256
Sales and service	793,131	982,562
Prepaid auxiliary operations sales	534,575	2,563,407
	<u>\$.31,775,402</u>	<u>\$ 32,616,969</u>
Component Units deferred revenue	<u>\$_2,232,789</u>	<u>\$ 2,390,056</u>

June 30, 2006 and 2005

(10) Long-Term Liabilities

At June 30, 2006 and 2005, long-term liabilities consisted of the following:

	Year Ended June 30, 2006				
-	Beginning			Ending	Amounts Due
	Balance	Additions	Deductions	Balance	Within One Year
Primary Institution long-term liabilities					
Bonds payable	\$437,918,581	127,891,303	(12,787,462)	553,022,422	\$ 9,232,741
Student loan programs	15,183,540	149,819	(159,552)	15,173,807	
	\$453,102,121	128,041,122	<u>(12,947,014)</u>	<u>568,196,229</u>	<u>\$_9,232,741</u>
Component Units long-term liabilities					
Due to University of New Mexico	\$ 19,490,372	3,650,203	-	23,140,575	\$ 23,140,575
Deferred annuities payable	1,555,780	438,366	(146,790)	1,847,356	305,957
	<u>\$ 21,046,152</u>	4,088,569	(146,790)	24,987,931	<u>\$23,446,532</u>

	Year Ended June 30, 2005				
	Beginning			Ending	Amounts Due
	Balance	Additions	Deductions	Balance	Within One Year
Primary Institution long-term liabilities					
Bonds payable	\$251,313,044	197,272,306	(10,666,769)	437,918,581	\$ 10,905,000
Student loan programs	15,130,085	535,347	(481,892)	15,183,540	
	<u>\$266,443,129</u>	<u>197,807,653</u>	<u>(11,148,661)</u>	<u>453,102,121</u>	<u>\$ 10,905,000</u>
Component Units long-term liabilities					
Due to University of New Mexico	\$ 16,423,244	3,067,128	-	19,490,372	\$ 19,490,372
Deferred annuities payable	1,648,345	131,977	(224,542)	1,555,780	271,506
	<u>\$ 18,071,589</u>	3,199,105	(224,542)	21,046,152	<u>\$_19,761,878</u>

June 30, 2006 and 2005

(11) Bonds Payable

The bonds are collateralized by substantially all unrestricted revenues excluding state appropriations and clinical operations.

Bonds payable consist of the following:	2006	2005
Subordinate Lien System Revenue Bonds (Taxable)	\$ 5.585.000	\$ 5.5 <u>85.00</u> 0
Series 2003B with interest ranging from	• •,••••,••••	• • • • • • • • • • • • • • • •
1.35% to 5.625% - final maturity 2024		
Subordinate Lien System Revenue Bonds	5,615,000	5,830,000
Series 2003C with interest ranging from		
4.5% to 4.6% - final maturity 2033		
Subordinate Lien System Refunding Revenue Bonds	19,235,000	20,065,000
Series 2003A with interest ranging from	, ,	
2.00% to 5.25% - final maturity 2018		
Subordinate Lien System Refunding & Improvement Revenue Bonds	54,745,000	56,070,000
Series 2002A with interest ranging from		
2.5% to 5.25% - final maturity 2032		
Subordinate Lien System Refunding Revenue Bonds	25,475,000	25,475,000
Series 2002B (Variable) with a synthetic fixed interest rate of 3.83%		
achieved through an interest rate exchange agreement		
final maturity 2026		
Subordinate Lien System Refunding Revenue Bonds	36,940,000	36,940,000
Series 2002C (Variable) with a synthetic fixed interest rate of 3.94%		
achieved through an interest rate exchange agreement		
final maturity 2030		
Subordinate Lien System Improvement Revenue Bonds	47,640,000	49,130,000
Series 2001 with interest at a variable rate with a		
ceiling of 12% - final maturity 2026		
System Revenue Bonds	11,381,671	12,666,671
Series 2000 with interest ranging from		
4.65 to 6.35% - final maturity 2029		
Subordinate Lien System Revenue Bonds	895,000	1,975,000
Series 1996 with interest ranging from		
4.80% to 5.50% - final maturity 2026		
Subordinate Lien Adjustable-Tender	-	3,540,000
System Revenue Refunding Bonds		
Series 1996 with synthetic interest rate of 5.10%		
achieved through an interest rate exchange agreement -		
final maturity 2006		
System Revenue Refunding Bonds	27,660,000	28,800,000
Series 1992-A with interest ranging from		
5.60% to 6.25% - final maturity 2021		
FHA Insured Hospital Mortgage Revenue Bonds	192,250,000	192,250,000
Series 2004 with interest ranging from		
2.00% to 5.00% - final maturity 2031		
Subordinate Lien System Improvement Revenue Bonds	125,575,000	-
Series 2005 with interest ranging from		
3.0% to 4.5% - final maturity 2035		
	\$552,996,671	\$438,326,671
Add: Bond premium	9,493,079	7,392,775
Less: Loss on defeased bonds	(6,030,203)	(6,591,380)
Bond discounts	(1,692,574)	(1,056,575)
Current portion of bonds payable	(9,232,741)	(10,905,000)
Bond insurance and surety premiums	(569,371)	(70,180)
Original issue discount	(1,175,180)	(82,730)
Long-term bonds payable	<u>\$543,789,681</u>	<u>\$427,013,581</u>

NOTES TO THE BASIC FINANCIAL STATEMENTS June 30, 2006 and 2005

Future debt service as of June 30, 2006 for the bonds follows:

Year ending			
June 30	Principal	Interest	Total
2007	\$ 9,232,741	\$ 26,314,130	\$ 35,546,871
2008	12,792,506	25,064,478	37,856,984
2009	14,326,741	24,497,580	38,824,321
2010	14,932,739	23,865,322	38,798,061
2011	15,492,231	23,757,288	39,249,519
2012-2016	88,073,012	108,387,426	196,460,438
2017-2021	111,311,701	84,402,045	195,713,746
2022-2026	127,605,000	54,835,021	18,440,021
2027-2031	128,780,000	25,179,446	153,959,446
2032-2035	30,450,000	3,401,972	33,851,972
	<u>\$552,996,671</u>	\$399,704,708	<u>\$952,701,379</u>

Defeased Bonds:

The University has defeased certain System Revenue Bonds as follows:

On November 13, 2002, the University of New Mexico defeased \$30,030,000 of the 2000A series. Sinking fund monies in the amount of \$35,060,001 from the Series 2002C Refunding Revenue Bonds were placed in an irrevocable trust to provide for all future debt service payments. Total cash flow savings to the University from this defeasance are \$3,215,000. Remaining principal outstanding at June 30, 2006 is \$30,030,000.

On January 30, 2003, the University of New Mexico defeased \$21,095,000 of the 1996 series. Sinking fund monies in the amount of \$23,477,000 from the Series 2002B Refunding Revenue Bonds were placed in an irrevocable trust to provide for all future debt service payments. Total cash flow savings to the University from this defeasance are \$1,210,000. These bonds were fully called on June 1, 2006.

On April 16, 2003, the University of New Mexico defeased \$4,090,000 of the 1996 series and \$15,655,000 of the 1994 series. Sinking fund monies in the amount of \$16,337,621 for the 1994 and \$4,640,561 for the 1996 from the series 2003A Refunding Revenue Bonds were placed in an irrevocable trust to provide for all future debt service payments. The 1994 series bonds were fully called in 2003. Total cash flow savings to the University from this defeasance are \$708,000. The 1996 bonds were fully called on June 1, 2006.

The liability for defeased bonds and the related assets held in trust are not included in the accompanying basic financial statements since the University has satisfied its obligation for payment of the defeased bonds.

Interest Rate Swap Agreement:

The University has entered into interest rate swap agreements for portions of its variable-rate bonds payable. The University continues to pay interest to the bondholders at the variable rate provided by the bonds. In return, the counterparty to the swap agreement owes the University interest based on a variable rate that matches the rate required by the bonds during the term of the swap agreements; the University effectively pays a fixed rate on the debt. Only the net difference in interest payments is actually exchanged with the counterparty. The bond principal is not exchanged; it is only the basis on which the interest payments are calculated.

The debt service requirements to maturity for these bonds [presented in this note] are based on the fixed rate per the swap agreements. The University will be exposed to variable rates if the counterparty to the swap defaults or if the swap is terminated. A termination of the swap agreement may also result in the University making or receiving a termination payment.

The notional amounts of the swap agreements match the percentage of bonds payable principal amounts that are protected by the swap agreements. Because interest rates have declined, all swaps had a negative fair value as of June 30, 2006. As a result, the University is not exposed to credit rate risk as of June 30, 2006. However, should interest rates

NOTES TO THE BASIC FINANCIAL STATEMENTS June 30, 2006 and 2005

change and the fair values of the swaps become positive, the University would be exposed to credit rate risk in the amount of the interest swaps' fair value.

The swap agreements are summarized as follows:

	Fixed interest rate per swap agreement	Portion of outstanding bond issue protected by swap <u>agreement</u>	Swap agreement expiration date	Counter party Standard & Poor's <u>rating</u>
Subordinate Lien System Refunding Revenue Bonds Series 2002B	3.83%	100%	Expires in 2026. May be terminated by either party after 2006 if specified conditions are met.	AA-
Subordinate Lien System Refunding Revenue Bonds Series 2002C	3.94%	100%	Expires in 2030. May be terminated by either party after 2010 if specified conditions are met.	AA-
Subordinate Lien System	4.16%	25%	Expires in 2026.	AA-
Improvement Revenue Bonds Series 2001	4.19%	25%	Expires in 2026.	AA-

(12) Health Care Revenue

A summary of net patient service revenues follows for the years ended June 30:

Primary Institution	2006	<u>2005</u>
Charges at established rates	\$ 252,554,371	\$ 229,963,892
Charity care	(29,715,914)	(27,077,385)
Contractual adjustments	(83,416,555)	(79,172,502)
Provision for doubtful accounts, net	(26,265,611)	(25,052,049)
Total net patient service revenues	<u>\$ 113,156,291</u>	<u>\$ 98,661,956</u>

Below is a breakdown of the hospital and clinical operations operating revenues:

Clinical operations	<u>2006</u>	2005
Charges at established rates	\$ 704,192,411	\$ 641,321,773
Charity care	(135,784,014)	(118,225,726)
Contractual adjustments	(233,078,938)	(206,490,575)
Provision for doubtful accounts, net	(54,394,457)	(65,357,028)
Net patient service revenues	280,935,002	251,248,444
Other operating revenues	16,572,481	<u> 16,241,311</u>
Total operating revenues	<u>\$_297,507,483</u>	<u>\$ 267,489,755</u>

The Hospital is reimbursed from the Medicare and Medicaid programs for certain reimbursable items at a tentative rate with final settlement determined after submission of annual cost reports by the Hospital. The annual cost reports are subject to audit by the Medicare intermediary and the Medicaid audit agent. Cost reports through 2000 have been final settled for the Medicaid programs. Cost reports through 2004 have been final settled for the Medicare program.

NOTES TO THE BASIC FINANCIAL STATEMENTS June 30, 2006 and 2005

Retroactively calculated contractual adjustments arising under reimbursement agreements with third-party payors are accrued on an estimated basis in the period the related services are rendered and adjusted in future periods as final settlements are determined.

In the 2003 legislative session, the New Mexico State Legislature amended Section 7-1-6.11, NMSA 1978, to provide, in part, for a distribution of 14.52% of the net receipts of cigarette excise tax revenues to the New Mexico Finance Authority (NMFA) for the benefit of the University of New Mexico Health Sciences Center. The act permits the NMFA to issue and sell revenue bonds in an amount not to exceed \$60.0 million for a term not to exceed 15 years, for the purpose of designing, constructing, equipping and furnishing additions and improvements to the Hospital and the Cancer Research Treatment Center at the University of New Mexico Health Sciences Center.

The principal and interest on both the 2004A and 2004B bonds are payable from and secured by a distribution of certain cigarette excise taxes imposed and collected in the State of New Mexico. The 2004A and 2004B bonds, together with interest thereon, are not an indebtedness of the University of New Mexico, or the Hospital, but are special limited obligations of the NMFA payable solely from and secured solely by the cigarette tax revenues and amounts in certain funds and accounts created under the indenture.

(13) Leases

At June 30, 2006 and 2005, the University and the clinical operations had various lease arrangements summarized as follows:

(A) University and clinical operations as Lessees

(a) <u>Capital Leases</u>

The University and the clinical operations have no capital leases to report at June 30, 2006 and 2005.

(b) *Operating Leases*

The University's rent expense for operating leases amounted to \$6,241,881 and \$5,451,113 for the years ended June 30, 2006 and 2005, respectively.

The clinical operations are committed under various leases for building and office space and data processing equipment. Rental expenses on operating leases and other non-lease equipment were \$7,090,500 and \$6,379,500 in 2006 and 2005, respectively.

(c) <u>Minimum Lease Payments</u>

The following is a schedule of future minimum lease payments for Primary Institution operating leases at June 30, 2006:

Year ending	Lease
June 30	Payments
2007	\$ 7,928,128
2008	6,044,229
2009	5,346,756
2010	3,406,708
2011	3,000,383
2012-2016	12,044,190
2017-2021	5,203,115
2022-2026	1,480,482
Total	<u>\$ 44,453,991</u>

NOTES TO THE BASIC FINANCIAL STATEMENTS June 30, 2006 and 2005

(B) University as Lessor

The University is lessor of various properties. For the years ended June 30, 2006 and 2005, respectively, total lease income, which includes annually renewable lease agreements, was \$6,489,191 and \$5,268,223.

The following is a schedule of minimum future lease income under lease terms exceeding one year as of June 30, 2006:

Year ending	Lease
June 30	Payments
2007	\$ 4,216,863
2008	3,135,011
2009	3,100,761
2010	3,087,047
2011	3,051,774
2012-2016	1,044,896
2017-2021	201,740
2022-2026	124,665
Total	<u>\$ 17,962,757</u>

(14) Risk Management

The University currently is a party to various litigation claims in the ordinary course of business. The University participates in the State of New Mexico Risk Management Program (Risk Management) which provides general liability, auto liability, medical malpractice, physical damage and workers' compensation insurance. The Risk Management program liability insurance coverage includes most employee liability claims; those claims falling outside this state program are in limited amounts and are covered by the University from its operating budget. During the 2005-2006 fiscal year, the University paid Risk Management \$7,290,503 in insurance premiums. During the 2004-2005 fiscal year, the University paid Risk Management \$4,234,707 in insurance premiums. The University's exposure is limited to \$1,000 per any first party incurred property loss, with the exception of theft, which has a \$5,000 deductible. After conferring with legal counsel concerning pending litigation and claims, the University administration believes that the outcome of pending litigation should not have a materially adverse effect on the financial position or operations of the University.

As a governmental entity, the Hospital is only liable within the limitations of the New Mexico Tort Claims Act. This act limits claims in tort and civil coverage to \$1,050,000 for all claims arising from a single occurrence. State agencies are prohibited from purchasing higher limits of coverage for actions that would be brought in New Mexico's State Courts under the New Mexico Tort Claims Act. However, the State of New Mexico General Services Department's Risk Management Division provides excess coverage in the amount of \$5,000,000 for claims relating to medical malpractice. The Hospital is fully covered for claims up to the previously described limits by the Risk Management Division.

The University receives grants and other forms of reimbursement from various federal and state agencies. These activities are subject to audit by agents of the funding authority, the purpose of which is to ensure compliance with conditions precedent to providing such funds. University administration believes that the liability, if any, for reimbursement which may arise as the results of audits, would not be material to the financial position or operations of the University.

Beginning August 1, 2005, the Hospital discontinued its commercial health insurance because of prohibitive cost and began self-funding its own health plan. Blue Cross and Blue Shield of New Mexico, HMO New Mexico (BCBSNM and HMONM) provide administrative claim payment services for the Hospital's plan. Liabilities are based on an estimate of claims that have been incurred but not reported and invoices received but not yet paid. At June 30, 2006, the estimated amount of the Hospital's claims and accrued invoices was \$2.3 million. The incurred but not reported liability was calculated using information provided by Mercer Human Resource Consulting and BCBSNM. Changes in the reported liability since June 30, 2005 resulted from the following:

NOTES TO THE BASIC FINANCIAL STATEMENTS June 30, 2006 and 2005

		Beginning of Fiscal-Year Liability	Current Year Claims and Changes in Estimates	Claim Payments	Balance at Fiscal-Year End	
2005-2006	\$	-	13,193,883	10,882,641	2,311,242	

(15) Retirement Plans and Post-Employment Benefits

(A) University

Employees of the University of New Mexico are covered by a legislative non-negotiated retirement plan through the Educational Retirement Act (ERA) of the State of New Mexico, as a cost-sharing multiple employer public employee retirement system. Information pertaining to the actuarially computed present value of vested accumulated plan benefits and non-vested accumulated plan benefits, the plan's net assets available for benefits and the assumed rate of return used in computing the present value, and ten-year historical trend information presenting ERA's progress in accumulating sufficient assets to pay benefits when due is not available by individual government agencies participating in the plan. Actuarial pension data for the State of New Mexico, as employer, is provided at the statewide level in a separately issued audit report of the ERA. The report may be obtained by writing to ERA, P.O. Box 26129, Santa Fe, NM 87502.

Funding Policy

Covered employees for FY06 were required by state statute to contribute 7.675% of their gross salary. The University of New Mexico was required by state statute to contribute 9.40% for FY06. The employee and employer contribution percentages will gradually increase to 7.9% and 13.9% respectively by 2011.

The payroll for employees covered by the ERA for the years ended June 30, 2006 and 2005 was \$322,994,471 and \$313,670,331, respectively. The total payroll for all employees of the University for the years ended June 30, 2006 and 2005 was \$488,682,486 and \$482,772,751, respectively. The University's contributions to the ERA were \$30,361,486, equal to the required contribution for the year ended June 30, 2006. The previous two-year's contributions to the ERA were \$27,132,484 and \$25,676,752, equal to the required contribution for the years ended June 30, 2005 and 2004, respectively.

Post-Employment Benefits

Vesting in Retirement Benefits: A member becomes vested once he/she has met service requirements and has made contributions to the retirement plan for at least five years. Service requirements are satisfied by five or more years of "earned service credit" (actual service) or an "allowed service credit."

Determination of Benefits: The annual benefit is equal to 2.35% of the average of the five highest consecutive years salary multiplied by the number of years of service (earned and allowed credit). Benefit may be reduced by election of an option that guarantees continuous income to a surviving beneficiary. The benefit may also be reduced if the member has less than 25 years service and is less than age 60.

Eligibility for Retirement Benefits: Eligibility follows the Rule of 75. Employees whose age plus the number of years of earned service credit equals 75 are eligible for retirement benefits. Eligibility for retirement benefits also occurs for employees having a combination of 25 years of earned and allowed service credit. Employees with less than 25 years of earned service credit are also eligible for limited retirement benefits at age 65 with five years of earned service credit.

NOTES TO THE BASIC FINANCIAL STATEMENTS June 30, 2006 and 2005

Allowed Service Credit: Up to five years of allowed service credit may be purchased by an administrator, teacher or employee in one of the following: any public educational system in the United States, any U.S. Military Dependent school, any accredited private school or Federal Education program in New Mexico. The cost of purchase is 12% of member's current annualized New Mexico salary for each year of credit purchased. Up to five years of active military service may be purchased if payment is made within three years of the effective date of coverage under the Educational Retirement Act. The cost of purchase is 10.5% of member's average annual salary for all years of covered employment for each year purchased.

Post-Employment Benefits: In addition to the pension benefits described above, the University provides certain other post-employment benefits. The University pays the same percent of the premium for medical, dental and life insurance that the employee was eligible for at the time of retirement, until age 65 when some coverage may change.

At June 30, 2006, 1827 retirees enrolled for post-employment benefits. Expenses for post-employment health care benefits are recognized as payments are made to the insurance carriers (pay as you go basis). During the fiscal years 2006 and 2005, respectively, expenses (net of employee contributions) of \$2,449,670 and \$3,541,795 were recognized for post-employment benefits.

The University also provides tuition assistance for eligible retirees. Retirees are entitled to enroll in an unlimited number of courses without paying for tuition, including Continuing Education classes. Expenses for tuition remission for retirees are recognized on a quarterly basis. At June 30, 2006, 356 retirees participated in the tuition remission program. During the fiscal years 2006 and 2005, respectively, the tuition remission program amounted to \$186,987 and \$29,801 of benefit expense.

(B) Hospital

The Hospital has a defined contribution plan covering eligible employees. The Hospital contributes between 5.5 to 7.5 percent of an employee's salary to the plan, depending on employment level. The plan was established by the Clinical Operations Board and can be amended at its discretion. Total pension expense was \$5,509,000 in 2006. The previous two-year's pension expenses were \$5,206,000 and \$5,208,000 for the years ended June 30, 2005 and 2004, respectively. The Hospital also has a defined benefit plan that covers all employees who were members of the clerical and service worker collective bargaining unit as of June 30, 1977, for services prior to June 30, 1977.

(16) Commitments and Contingencies

(A) Commitments

The University had issued purchase orders for materials and services that were not received and thus are not reflected as liabilities in the accompanying statement of net assets. The amount of such commitments is \$132,873,328 and \$90,586,228 at June 30, 2006 and 2005, respectively.

At June 30, 2006 the University had commitments for various projects that include completion of utility infrastructure. These commitments are funded by the following:

University bond proceeds	\$ 100,468,704
State bonds	104,493,098
Private gifts	6,202,793
Unrestricted University funds	40,028,573
County bonds	5,829,650
Federal grants	5,261,260
State allocations	24,120,078
	\$ 286,404,168

NOTES TO THE BASIC FINANCIAL STATEMENTS

June 30, 2006 and 2005

(B) Contingencies

The University is liable or contingently liable in connection with certain claims that arise in the normal course of its activities. It is the opinion of management that uninsured losses resulting from these claims would not be material to the University's financial position or operations.

The University receives governmental grants that may be refundable in the event that all terms of the grants are not complied with.

(C) Mortgage Reserve Fund

On November 15, 2004, the Hospital established a mortgage reserve fund in accordance with the requirements and conditions of the Federal Housing Administration (FHA) Regulatory Agreement. Future Mortgage Reserve Fund contributions are summarized as follows:

	Annual
	<u>Contribution</u>
2007	\$ 1,174,120
2008	2,396,076
2009	2,493,696
2010	2,595,294
2011	2,701,030
2012-2016	12,737,689
2017-2021	1,377,476
Total	<u>\$ 25,475,38</u>

(17) Component Units

(A) University Physician Associates

University Physician Associates (UPA) is a non-profit corporation whose purpose is to benefit The University of New Mexico School of Medicine (School of Medicine). Fees generated from the School of Medicine health care delivery services are billed and collected by UPA. The School of Medicine requests distributions from UPA in accordance with certain bylaws. University Physician Associates, 1650 University Boulevard, NE, Albuquerque, NM 87102.

(B) The University of New Mexico Foundation, Inc.

The University of New Mexico Foundation, Inc. (Foundation) is a non-profit corporation, organized to solicit, receive, hold, invest and transfer funds for the benefit of the University of New Mexico. The majority of the Foundation's investments are managed by the University. The University of New Mexico Foundation, Inc., Two Woodward Center, 700 Lomas Blvd. NE, Suite 108, Albuquerque, NM 87131.

(C) The Robert O. Anderson Schools of Management Foundation

The Robert O. Anderson Schools of Management Foundation (ASMF) is a non-profit corporation organized in 1971 to promote continued education to the business community. ASMF provides professional workshops, seminars, guest symposiums, a masters degree program and funding for various faculty fellowships, research grants and student scholarships. The University of New Mexico, The Robert O. Anderson Schools of Management Foundation, 1924 Las Lomas, NE, Albuquerque, NM 87131.

NOTES TO THE BASIC FINANCIAL STATEMENTS June 30, 2006 and 2005

(D) Science & Technology Corporation @ UNM

The Science & Technology Corporation @ UNM (STC), is a non-profit corporation formed under the auspices of the 1989 New Mexico University Research Park Act and the New Mexico Non-profit Corporation Act. The business of the corporation is to manage the commercialization of technologies developed by the University's faculty and manage the real estate development of the Science & Technology Park at The University of New Mexico on the South Campus. Science & Technology Corporation @ UNM, 801 University Blvd. SE, Suite 101, Albuquerque, NM 87106.

(E) University of New Mexico Lobo Club

The University of New Mexico Lobo Club (Club) is a non-profit corporation established to operate as a fund-raising entity in support of the athletic program at the University. The Club operates on a fiscal year-end of May 31. Although inconsistent with the University's fiscal year-end, there is generally no material impact to the financial statements. However, in June 2006, the Lobo Club made a \$2.3 million payment after the Lobo Club's fiscal year end, but prior to the University's June 30, 2006 fiscal year end. This payment is reflected in these financial statements. The University of New Mexico Lobo Club, Department of Athletics, Albuquerque, NM 87131.

(F) Lobo Energy, Inc.

Lobo Energy, Inc. (LEI) was formed by the UNM Regents in June 1998, under the University Research Park Act to be a separate 501(c)(3) corporation wholly owned by UNM. Its responsibilities include the procurement of natural gas and electricity, operations and maintenance of all production facilities, and energy measurement and management systems. Lobo Energy, Inc., 801 University Blvd. SE, Suite 207, Albuquerque, NM 87106.

(G) The University of New Mexico Alumni Association

The University of New Mexico Alumni Association (the Association) is a not-for-profit organization which was incorporated August 29, 1962 to provide and coordinate events and activities for the purpose of maintaining a positive relationship between the University and its alumni. The University of New Mexico Alumni Association at Hodgin Hall, Albuquerque, NM 87131.

These entities were selected for inclusion based on criteria as set forth in GASB 14 and GASB 39. Complete financial statements for these component units can be obtained from their respective administrative offices at the address listed above.

Schedule of Pledged Revenues for the year ended June 30, 2006 Unaudited

	Tuition and Fees			Patient Services	Clinical Operations			Contracts and Grants		
Revenues	\$	87,865,694	\$	113,156,291	\$	373,246,208	\$	266,650,439		
Excluded Revenues:										
State Appropriations		-		-		-		-		
Local Appropriations		-		-		-		-		
Patient Services		-		113,156,291		-		-		
Additions to Permanent Endowments		-		-		-		-		
Restricted Funds		7,465,398		-		-		-		
Federal Contracts & Grants		-		-		-		194,171,978		
State Contracts & Grants		-		-		-		24,333,349		
Local Contracts & Grants		-		-		-		15,470,706		
Indirect Cost Recovery		-		-		-		(35,732,886)		
University of New Mexico Hospital		-		-		321,808,336		-		
University of New Mexico Psychiatric Center		-		-		23,359,646		-		
University of New Mexico Children's Psychiatric Center		-		-		12,450,877		-		
University of New Mexico Carrie Tingley Hospital		-		_		15,627,349				
Total Excluded Revenues	\$	7,465,398	\$	113,156,291	\$	373,246,208	\$	198,243,147		
Pledged Revenues	\$	80,400,296	\$		\$		\$	68,407,292		
Resour	<u>ces Avai</u> l	able to Cover I	Debt	Service				FY06		

Pledged Revenues	\$ 381,718,429
Less FY06 Debt Service	
Interest on Debts	14,783,208
Principal Repayments on Debts	 12,602,259
Excess of Pledged Revenues over Debt Service	\$ 354,332,962
Future average annual debt service through year ended June 30, 2035	\$ 32,851,772
Future highest annual debt service year ended June 30, 2015	\$ 72,593,350

See accompanying Independent Auditors' Report.

SCHEDULE 1

Sales and										
Services	A	ppropriations	I	nvestments	Capital	Gifts	Other			Total
\$ 98,222,173	\$	271,940,479	\$	50,580,757	\$ 65,431,767	\$ 21,086,477	\$	\$ 38,658,990 \$		1,386,839,275
-		267.899.383		-	-	-		-		267.899.383
-		4.041.096		-	-	-		-		4.041.096
		.,,								.,,
-		-		-	-	-		-		113,156,291
-		-		-	-	-		-		-
5,549,128		-		256,430	49,931,612	50,000		(14,717,847)		48,534,721
-		-		-	-	-		-		194,171,978
-		-		-	-	-		-		24,333,349
-		-		-	-	-		-		15,470,706
-		-		-	-	-		-		(35,732,886)
-		-		-	-	-		-		321,808,336
-		-		-	-	-		-		23,359,646
-		-		-	-	-		-		12,450,877
 -		-		-	-	-		-		15,627,349
\$ 5,549,128	\$	271,940,479	\$	256,430	\$ 49,931,612	\$ 50,000	\$	(14,717,847)	\$	1,005,120,846
\$ 92,673,045	\$	-	\$	50,324,327	\$ 15,500,155	\$ 21,036,477	\$	53,376,837	\$	381,718,429





APPENDIX C

ENVIRONMENTAL CONSIDERATIONS

5

Because of the form of the fuel and the lack of fission product inventory, failure of equipment or release of the fuel to the outside environment will not directly or indirectly endanger the public health and safety. A PRA review of the reactor (ANS Transactions, Vol.65, p.132-133, 1992) indicated that "in the unlikely event of release to the environment, a total whole body dose rate of 1.61×10^{-5} mrem/sec in the form of a radioactive plume has been calculated for persons located in the vicinity." This indicates that even the maximum hypothetical release accident does not endanger the public health and safety.

APPENDIX D

TECHNICAL SPECIFICATIONS

LICENSE NUMBER R-102

TECHNICAL SPECIFICATIONS

FOR

THE UNIVERSITY OF NEW MEXICO AGN-201M REACTOR

SERIAL NUMBER 112

DOCKET NUMBER 50-252

REVISED FEBRUARY 2007
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	6.4	Reactor Safety Advisory Committee			
	6.5	Approvals			
	6.6	Procedures			
	6.7	Experiments			
	6.8	Safety Limit Violations			
	6.9	Reporting Requirements			
	6.10	Record Retention			

1.0 **DEFINITIONS**

The terms Safety Limit (SL), Limiting Safety System Setting (LSSS), and Limiting Conditions for Operation (LCO) are as defined in 10 CFR 50.36.

- 1.1 Definitions
 - 1.1.1 Certified Operator A certified operator is an individual authorized by the Nuclear Regulatory Commission (NRC) to carry out the duties and responsibilities associated with operation of the reactor.
 - 1.1.2 Channel Calibration A channel calibration is an adjustment of the channel such that its output responds, within acceptable range and accuracy, to known values of the parameter that the channel measures. Calibration shall encompass the entire channel, including equipment, actuation, alarm, or trip.
 - 1.1.3 Channel Check A channel check is a qualitative verification of acceptable performance by observation of channel behavior. This verification may include comparison of the channel with other independent channels or methods measuring the same variable.
 - 1.1.4 Channel Test A channel test is the introduction of a signal into the channel to verify that it is operable.
 - 1.1.5 Control Rod Any of the four moveable rods loaded with fuel that are manipulated by the operator to change the reactivity of the reactor.
 - 1.1.6 Coarse Control Rod The control rod with a scram function that can be mechanically withdrawn/inserted at two possible speeds (40-50 seconds full insertion time or 80-100 seconds full insertion time).
 - 1.1.7 Excess Reactivity The amount of reactivity above a $k_{eff} = 1$. This is the amount of reactivity that would exist if all control rods were moved to the maximum reactive condition from the point where the reactor is exactly critical ($k_{eff} = 1$)
 - 1.1.8 Experiment An experiment is any of the following:

a. An activity utilizing the reactor system or its components or the neutrons or radiation generated therein;

b. An evaluation or test of a reactor system operational, surveillance, or maintenance technique;

c. The material content of any of the foregoing, including structural components, encapsulation or confining boundaries, and contained fluids or solids.

- 1.1.9 Experimental Facilities Experimental facilities are those portions of the reactor assembly used for the introduction of experiments into or adjacent to the reactor core region or to allow beams of radiation to exist outside the reactor shielding. Experimental facilities shall include the thermal column, glory hole, and access ports.
- 1.1.10 Explosive Material Explosive material is any solid or liquid which is categorized as a Severe, Dangerous or Very Dangerous Explosion Hazard in "Dangerous Properties of Industrial Materials" by N.I. Sax, third Ed. (1968), or is given an Identification of Reactivity (Stability) index of 2, 3, or 4 by the National Fire Protection Association in its publication 704-M, 1966.
 "Identification System for Fire Hazardsiof Materials," also enumerated in the "Handbook, for Laboratory Safety," 2nd Ed. (1971), published by The Chemical Rubber Co.

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1.1.11 Fine Control Rod - A low worth control rod used primarily to maintain an intended power level. Its position/may be varied manually.

- 1.1.12 Major Change Any change in reactor configuration which affects the probability or consequences of an event.
 - 1.1.13 Measured Value The measured value is the value of a parameter as it appears on the output of a channel.
 - 1.1.14 Measuring Channel A measuring channel is the combination of sensor, lines, amplifiers, and output devices which are connected for the purpose of measuring or responding to the value of a process variable.
 - 1.1.15 Movable Experiment A movable experiment is one that may be inserted, removed, or manipulated while the reactor is critical.
 - 1.1.16 Operable Operable means a component or system is capable of performing its intended function in its normal manner.

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- 1.1.17 Operating Operating means a component or system is performing its intended function in its normal manner.
- 1.1.18 Potential Reactivity Worth The potential reactivity worth of an experiment is the maximum absolute value of the reactivity change that would occur as a result of intended or anticipated changes or credible malfunctions that alter experiment position or configuration.
- 1.1.19 Reactor Component A reactor component is any apparatus, device, or material that is a normal part of the reactor assembly.

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1.1.20 Reactor Operation - Reactor operation is any condition wherein the reactor is not shutdown.

1.1.21 Reactor Safety System - The reactor safety system is that combination of safety channels and associated circuitry which forms an automatic protective system for the reactor or provides information that requires manual protective action be initiated.

1.1.22 Reactor Secured - The reactor shall be considered secured whenever:

a. either:
1. All safety and control rods are fully withdrawn from the core; or
2. The core fuse melts resulting in separation of the core.

and:

b. the reactor console key switch is in the "off" position and the key is removed from the console and under the control of a certified operator.

- 1.1.23 Removable Experiment A removable experiment is any experiment, experimental facility, or component of an experiment, other than a permanently attached appurtenance to the reactor system, which can reasonably be anticipated to be moved one or more times during the life of the reactor.
- 1.1.24 Research Reactor A research reactor is a device designed to support a self-sustaining neutron chain reaction for research, development, educational, training, or experimental purposes, and which may have provisions for producing radioisotopes.
- 1.1.25 Safety Channel A safety channel is a measuring channel in the reactor safety system.
- 1.1.26 Safety Control Rod One of two scrammable control rods that can be mechanically withdrawn/inserted at only one speed (35 to 50 seconds full insertion time).
- 1.1.27 Scram Time The time for the control rods acting under gravity to change the reactor from a critical to a subcritical condition. In most cases, this is less than or equal to the time it takes for the rod to fall from full-in to full-out position.

- 1.1.28 Secured Experiment Any experiment, or component of an experiment is deemed to be secured, or in a secured position, if it is held in a stationary position relative to the reactor by mechanical means. The restraint shall exert sufficient force on the experiment to overcome the expected effects of hydraulic, pneumatic, buoyant, or other forces which are normal to the operating environment of the experiment or which might arise as a result of credible malfunctions.
- 1.1.29 Shall, Should and May The word "shall" is used to denote a requirement; the word "should" to denote a recommendation; and the word "may" to denote permission--neither a requirement nor a recommendation.
- 1.1.30 Shutdown Margin Shutdown margin shall mean the minimum shutdown reactivity necessary to provide confidence that the reactor can be made subcritical by means of the control and safety systems starting from any permissible operating condition although the most reactive rod is in its most reactive condition and that the reactor will remain subcritical without further operator action.
- 1.1.31 Static Reactivity Worth The static reactivity worth of an experiment is the value of the reactivity change measurable by calibrated control or regulating rod promparison methods between two rdefined terminal positions or **EXAMPLE 1** Configurations of the experiment. For removable experiments, the terminal positions are fully removed from the reactor and fully inserted or installed in the normal functioning or intended position.

1.1.32 Surveillance Time A surveillance time indicates the frequency of tests to demonstrate performance. Allowable surveillance intervals shall not exceed the following: · · / /

- a. Two-year (interval not to exceed 30 months)
- b. Annual (interval not to exceed 15 months)
- c. Semiannual (interval not to exceed seven and one-half months)

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- d. Quarterly (interval not to exceed four months)
- e. Monthly (interval not to exceed six weeks).

1.1.33 True Value - The true value is the actual value of a parameter.

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2.0 SAFETY LIMITS AND LIMITING SAFETY SYSTEM SETTINGS

2.1 Safety Limits

Applicability

This specification applies to the maximum core temperature during operation.

Objective

To assure that the integrity of the fuel material is maintained and that all fission products are retained in the core matrix.

Specification

a. The maximum core temperature shall not exceed 200°C during operation.

Basis

The polyethylene core material does not melt below 200°C and is expected to maintain its integrity and retain essentially all of the fission products at temperatures below 200°C. The Hazards Summary Report dated February 1962 submitted on Docket F-15 by Aerojet-General Nucleonics (AGN) calculated a core maximum temperature rise of 71.3°C while the Safety Analysis Report submitted during the 1986 relicensing of the UNM AGN calculated a core maximum temperature rise of 100.7°C. In either case, assuming operation at 20°C, the corresponding maximum core temperature would be 120.7°C or 91.3°C, both of which are well below 200°C thus assuring integrity of the core and retention of fission products.

2.2 Limiting Safety System Settings

Applicability

This specification applies to the parts of the reactor safety system which will limit maximum power and core temperature.

Objective

To assure that automatic protective action is initiated to prevent a safety limit from being exceeded.

Specification

a. The safety channels shall initiate a reactor scram at the following limiting safety system settings:

	Channel	<u>Condition</u>	LSSS
·	Nuclear Safety #2 Nuclear Safety #3	High Power High Power	6 watts
b ;	The polystyrene core therma 120EC resulting in core separ	l fuse melts when hea ation and a reactivity l	ated to a temperature of about ossigreater than 5% $\Delta k/k$.
Basis	and a second s Second second s	na ^{na} na ing pangangan Kanangana na sarah	n an Aragon Angelana An an Aragon an Aragon an

 $W_{i,j} = \left\{ \left\{ \left\{ 1, \dots, 1 \right\} : i \in \{1, \dots, j\} \in \{1, \dots, j\} \in \{1, \dots, j\} \} \right\} \right\}$

Based on instrumentation response times and scram tests, the AGN Hazards Report concluded that reactor periods in excess of 30-50 milliseconds would be adequately arrested by the scram system. Since the maximum available excess reactivity in the reactor is less than one dollar, the reactor cannot become prompt critical, and the corresponding shortest possible period is greater than 200 milliseconds. The high power LSSS of 6 watts in conjunction with automatic safety systems, and the maximum temperature rise of 100.7°C, and/or manual scram capabilities will assure that the safety limits will not be exceeded during normal operation or as a result of the most severe credible transient.

In the event of failure of the reactor to scram, the self-limiting characteristics due to the high negative temperature coefficient, and the melting of the thermal fuse at a temperature below 120°C will assure safe shutdown without exceeding a core temperature of 200°C (the Safety Limit).

3.0 LIMITING CONDITIONS FOR OPERATION

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3.1 <u>Reactor Core Parameters</u>

Applicability

This specification applies to the reactivity condition of the reactor and the reactivity worths of control rods and experiments.

Objective

To assure that the reactor can be shut down at all times and that the safety limits will not be exceeded.

Specification

. . . .

- a. The available excess reactivity with all control and safety rods fully inserted and including the potential reactivity worth of all experiments shall not exceed 0.65% $\Delta k/k$.
- b. The shutdown margin with the most reactive safety or control rod fully inserted shall be at least 1% $\Delta k/k$.
- c. The reactivity worth of the control rods shall ensure subcriticality on the withdrawal of the coarse control rod or any one safety rod.
- d. The excess reactivity with no experiments in the reactor and the control and safety rods fully inserted shall not exceed 0.25% $\Delta k/k$.

Basis

The limitations on total core excess reactivity assure reactor periods of sufficient length so that the reactor protection system and/or operator action will be able to shut the reactor down without exceeding any safety limits. The shutdown margin and control and safety rod reactivity limitations assure that the reactor can be brought and maintained subcritical if the highest reactivity rod fails to scram and remains in its most reactive position.

3.2 Reactor Control and Safety Systems

Applicability

These specifications apply to the reactor control and safety systems.

Objective

To specify lowest acceptable level of performance, instrument set points, and the minimum number of operable components for the reactor control and safety systems.

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a. The fine control rod, coarse control rod, and the two safety rods shall be operable and the carriage position of the fine and coarse control rods shall be displayed at the console whenever any rod is above its lower limit.

the comparent Ball that does not form on the direction and set are control to the second of the

- b. The total scram withdrawal time of the safety rods and coarse control rod shall be less than 1 second.
- The average reactivity addition rate for each control or safety rod shall not exceed 0.065% $\Delta k/k$ per second.

The safety rods and coarse control rod shall be interlocked such that:

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1. Reactor startup cannot commence unless both safety rods and the coarse control rod are fully withdrawn from the core.

2. Only one safety rod can be inserted at a time.

3. The coarse control rod cannot be inserted unless both safety rods are fully inserted and a more control and the control and

in the end of an and a link match conception and the match of the and

4. etc. At any operating power below 50 x 10⁻⁶ watts, none of the rods can be moved

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- e. Nuclear safety channel instrumentation shall be operable in accordance with Table 3.1 whenever the reactor control or safety rods are not in their fully withdrawn position.
- f. A manual scram shall be provided on the reactor console, and the safety circuitry shall be designed so that no single failure can negate both the automatic and manual scram capability.

- g. An The shield water level interlock shall be set to prevent reactor startup and scram the reactor if the shield water level falls more than 18 cm below the highest point on the reactor shield tank manhole opening. Apartment of the shield tank manhole opening.
 - h. The shield water temperature interlock shall prevent reactor startup or scram the reactor if the shield water temperature falls below 18°C.
 - a company at most of the at the start was a second
 - i. The seismic displacement interlock shall be installed in such a manner to prevent reactor startup or to scram the reactor during a seismic displacement.
 - A loss of electric power shall cause the reactor to scram.

Basis

i.

The specification on operability of the rods assures console control over reactivity conditions within the reactor. Display of the positions of the fine and coarse control rods assures that the positions of these rods are available to the operator to evaluate the configuration of the reactor.

The specifications on scram withdrawal time in conjunction with the safety system instrumentation and set points assure safe reactor shutdown during the most severe foreseeable transients. Interlocks on control rods assure an orderly approach to criticality and an adequate shutdown capability. The limitations on reactivity addition rates allow only relatively slow increases of reactivity so that ample time will be available for manual or automatic scram during any operating conditions.

The neutron detector channels (Nuclear Safety Channels #2 and #3) assure that reactor power levels are adequately monitored during reactor startup and operation. The power level scrams initiate redundant automatic protective action at power levels low enough to assure safe shutdown without exceeding any safety limits. The manual scram assures a method of shutdown without reliance on safety channels and circuitry.

The AGN-201's negative temperature coefficient of reactivity causes a reactivity increase with decreasing core temperature. The shield water temperature interlock will prevent reactor operation at temperatures below 18°C thereby limiting potential reactivity additions associated with temperature decreases.

Water in the shield tank is an important component of the reactor shield and operation without the water may produce excessive radiation levels. The shield tank water level interlock will prevent reactor operation without adequate water levels in the shield tank.

- The reactor is designed to withstand 0.6 g accelerations and 6 cm displacements. A seismic instrument causes a reactor scram whenever the instrument receives a horizontal acceleration that causes a horizontal displacement of 0.16 cm or greater. The seismic displacement interlock assures that the reactor will be scrammed and brought to a subcritical configuration during any seismic disturbance that may cause damage to the reactor or its components.
- The manual scram allows the operator to manually shutdown the reactor if an unsafe or otherwise abnormal condition occurs that does not scram the reactor. A loss of electrical power de-energizes the safety and coarse control rod holding magnets causing a reactor scram thus assuring safe and immediate shutdown in case of a power outage.

Table 3.1

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• 1:	man and a start a start	papier of entropy all conduct	n an
	Channel No.	Function	Operating Limits

2 1.5.2 1.5.4 [6] High-Power Scram: 1.5.4 (120%) of licensed the second second second second second for power (6:Watts) for a second second

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3.3 Limitations on Experiments

Applicability

- Applicability Bin Logi Menomenal - Antony to the tank of the tank This specification applies to experiments installed in the reactor and its experimental facilities.

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Objective

and the second To prevent damage to the reactor or excessive release of radioactive materials in the event of an experimental failure. · · · · ·

Specification Experiments (within the reactivity limits defined in Specification 3.1) containing a. materials corrosive to reactor components or which contain gaseous or liquid

fissionable materials shall be doubly encapsulated. •

Explosive materials or materials which might combine violently shall not be inserted into experimental facilities of the reactor or irradiated in the reactor.

c.

b.

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The radioactive material content, including fission products, of any doubly encapsulated experiment should be limited so that the complete release of all gaseous, particulate, or volatile components from the encapsulation could not result in: where the second second

> (1) a total effective dose equivalent to any person occupying an unrestricted area continuously for a period of two hours starting at the time of release in excess of 1 mSV or

(2) a total effective dose equivalent to any person occupying a restricted area during the length of time required to evacuate the restricted area in excess of 50 mSv.

Basis

These specifications are intended to reduce the likelihood of damage to reactor components and/or radioactivity releases resulting from an experimental failure and to protect operating personnel and the public from excessive radiation doses in the event of an experimental failure. Specification 3.3c conforms to 10 CFR 20 as of the date of this revision.

3.4 Radiation Monitoring, Control And Shielding

Applicability

This specification applies to radiation monitoring, control, and reactor shielding required during reactor operation.

. . .

Objective

The objective is to protect facility personnel and the public from radiation exposure. Specification

a. An operable portable radiation survey instrument capable of detecting gamma radiation shall be immediately available to reactor operating personnel whenever the subscription transfer and given and antibox of single a structure program and antibox of single a structure program and antibox of single a structure program and antibox of structure program.

b. The reactor room shall be considered a restricted area whenever the reactor is not

secured.

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c. The reactor room shall be considered a radiation area whenever the reactor is operated.

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the second difficult difficult of the reactor is operated the top of the reactor shall be considered a high second top the reactor shall be equipped with a gate that is locked for access control. The keys for the gate shall be in control of the reactor operator during operation access to a state of the second state.

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e. The following shielding requirement shall/be fulfilled during reactor operation: The thermal column shall be filled with water or graphite except during a critical experiment (core loading) or during other approved experiments which require the thermal column to be empty.

f. The core tank shall be sealed during reactor operation.

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- shown that the total gamma, thermal neutron, and fast neutron radiation dose rate in the reactor room, at the closest approach to the reactor but without access to reactor top, is less than 50 mrem/hr at reactor power levels of 5.0 watts.
 - The facility shielding in conjunction with radiation monitoring, control, and restricted areas is designed to limit radiation doses to facility personnel and to the public to a level below 10 CFR 20 limits under all conditions.

4.0 SURVEILLANCE REQUIREMENTS

Actions specified in this section are not required to be performed if during the specified surveillance period the reactor has not been brought critical or is maintained in a secured condition extending beyond the specified surveillance period. However, the surveillance requirements shall be fulfilled prior to subsequent startup of the reactor.

4.1 <u>Reactivity Limits</u>

Applicability

This specification applies to the surveillance requirements for reactivity limits.

Objective

To assure that reactivity limits for Specification 3.1 are not exceeded.

Specification

- a. Control rod reactivity worths shall be measured annually.
- b. Total excess reactivity and shutdown margin shall be determined annually.
- c. The reactivity worth of an experiment shall be estimated or measured, as appropriate, before or during the first startup subsequent to the experiment's first insertion.

Basis

The control and safety rod reactivity worths are measured annually to assure that no degradation or unexpected changes have occurred which could adversely affect reactor shutdown margin or total excess reactivity. The shutdown margin and total excess reactivity are determined to assure that the reactor can always be safely shut down with one rod not functioning and that the maximum possible reactivity insertion will not result in reactor periods shorter than those that can be adequately terminated by either operator or automatic action. Based on experience with AGN reactors, significant changes in reactivity or rod worth are not expected within a 12 month period.

4.2 <u>Control and Safety Systems</u>

Applicability

This specification applies to the surveillance requirements of the reactor control and safety systems.

Objective

To assure that the reactor control and safety systems are operable as required by Specification 3.2.

Specification

a. A channel test of Nuclear Safety Channels #2 and #3 shall be performed prior to the first reactor startup of the day or prior to each reactor operation extending more than one day.

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- b. A channel check of Nuclear Safety Channels #2 and #3 shall be performed daily whenever the reactor is in operation.
- c: Prior to each day's reactor operation or prior to each reactor operation extending more than one day, safety rod #1 shall be inserted and scrammed to verify operability of the manual scram system.
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- d. Control rod scram times and average reactivity insertion rates shall be measured annually.
- e. Control rods and drives shall be inspected for proper operation annually.
- f. A channel test of the seismic displacement interlock shall be performed annually.
- g. The power level measuring channels shall be calibrated and set points verified *annually*.
- and a supply of a part of the apple of the same of the providence of
- h. The shield water level interlock and shield water temperature interlock shall be calibrated annually.
 - i. If the core fuse has melted, then the fuel disks shall be inspected for evidence of melting or deformation.

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Basis

The channel tests and checks required daily or before each startup will assure that the safety channels and scram functions are operable. Based on operating experience with reactors of this type, the annual scram measurements, channel calibrations, set point verifications, and inspections are of sufficient frequency to assure, with a high degree of confidence, that the safety system settings will be within acceptable drift tolerance for operation. Melting of the core fuse indicates a temperature above 120°C so the safety limit of 200°C may be compromised. If the fuse has melted then the fuel disks should be checked for integrity.

4.3 <u>Reactor Structure</u>

Applicability

This specification applies to surveillance requirements for reactor components other than control rods.

Objective

The objective is to assure integrity of the reactor structures.

Specification

Visual inspection for water leakage from the shield tank shall be performed prior to each startup. Leakage sufficient to leave a puddle on the floor shall be corrected prior to subsequent reactor operation.

Basis

Based on experience with reactors of this type, the frequency of inspection and leak test requirements of the shield tank will assure capability for radiation protection during reactor operation.

4.4 <u>Radiation Monitoring and Control</u>

Applicability

2.2.2

This specification applies to the surveillance requirements of the radiation monitoring and control systems.

To assure that the radiation monitoring and control systems are operable and that all radiation and high radiation areas within the reactor facility are identified and controlled as required by Specification 3.4.

Specification

a. All portable radiation survey instruments assigned to the reactor facility shall be calibrated annually under the supervision of the Radiation Safety Office. The Remote Area Monitor on the top of the reactor shall be calibrated annually with

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b. Prior to each day's reactor operation or prior to each reactor operation extending more than one day, the reactor access high radiation area alarm (Ref.3.4d) and the Remote Area Monitor shall be verified to be operable.

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- c. A radiation survey of the reactor room shall be performed under the supervision of the Radiation Safety Officer annually to determine the location of radiation and high radiation areas corresponding to reactor operating power levels.
- Basis

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The periodic calibration of radiation monitoring equipment and the surveillance of the reactor access high radiation area (Ref 3.4d) alarm will assure that the radiation monitoring and control systems are operable during reactor operation.

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The periodic radiation surveys will verify the location of radiation and high radiation areas and will assist reactor facility personnel in properly labeling and controlling each location in accordance with 10 CFR 20.

5.0 DESIGN FEATURES

5.1 Reactor

- a. The reactor core, including control rods, contains approximately \square grams of U-235 in the form of <20% enriched UO₂ dispersed in approximately 11 kilograms of polyethylene. The lower section of the core is supported by an aluminum rod hanging from a fuse link. The fuse melts at a fuse temperature of about 120EC causing the lower core section to fall away from the upper section reducing reactivity by at least 5% $\Delta k/k$. Sufficient clearance between core and reflector is provided to ensure free fall of the bottom half of the core during the most severe transient.
- b. The core is surrounded by a 20 cm thick high density (1.75 gm/cm³) graphite reflector followed by a 10 cm thick lead gamma shield. The core and part of the graphite reflector are sealed in a fluid-tight aluminum core tank designed to contain any fission gases that might leak from the core.
- c. The core, reflector and lead shielding are enclosed in and supported by a fluid-tight steel reactor tank. An upper or "thermal column tank" may serve as a shield tank when filled with water or a thermal column when filled with graphite.
- d. The 198 cm diameter, fluid-tight shield tank is filled with water constituting a 55 cm thick fast neutron shield. The fast neutron shield is formed by filling the tank with approximately 3785 liters of water. The complete reactor shield shall limit doses to personnel in unrestricted areas to levels less than permitted by 10 CFR 20 under operating conditions.
- e. Two safety rods and one control rod (identical in size) contain less than 15 grams of U-235 each in the same form as the core material. These rods are lifted into the core by electromagnets, driven by reversible DC motors through lead screw assemblies. De-energizing the magnets causes a spring-driven, gravity-assisted scram. The fourth rod or fine control rod (approximately one-half the diameter of the other rods) is driven directly by a lead screw. This rod may contain polyethylene with or without fuel.

NOTE: All dimensions, masses, and densities given in the above description are nominal values.

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5.2 <u>Fuel Storage</u>

Fuel, including fueled experiments and fuel devices not in the reactor, is stored in

The storage array shall be such that k_{eff} is no greater than 0.9 for all conditions of moderation and reflection.

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5.3 <u>Reactor Room</u>

a. The reactor room houses the reactor assembly and accessories required for its operation and maintenance, and the reactor control console.

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b. The reactor room is a separate room in the Nuclear Engineering Laboratory, constructed with adequate shielding and other radiation protective features to limit doses in restricted and unrestricted areas to levels no greater than permitted by 10 CFR/20 constructed with a limit, and the limit doses in restricted and unrestricted areas to levels no greater than permitted by 10 cFR/20 constructed with a limit, and the limit doses area area and the limit doses area area area area area area.

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6.0 ADMINISTRATIVE CONTROLS

6.1 Organization

The current administrative organization for control of the reactor facility and its operation is as set forth in Figure 1. Levels 1, 2, and 3 refer to administrative levels for which changes in staffing must be communicated to the Nuclear Regulatory Commission as set forth in 6.9.3. The authorities and responsibilities set forth below are designed to comply with the intent and requirements for administrative controls of the reactor facility as set forth by the Nuclear Regulatory Commission.

6.1.1 UNM Administration

Has administrative responsibilities for all activities on Campus. The President (Level 1) is the chief administrative officer responsible for the University and in whose name the application for licensing is made. The Radiation Control Committee is a permanent committee established to act on behalf of the President of the University for control of all University of New Mexico (UNM) activities involving sources of ionizing radiation. The Committee consists of members from the UNM faculty/staff. Meetings are held regularly. Responsibilities are: to establish policy and disseminate rules for radiation safety and control at UNM; to serve as the UNM liaison with the NRC in matters of registration, licensing, and radiation control; and to ensure periodic inspections and radiation surveys for the purpose of assuring the safety of radiation operations within any UNM facility.

6.1.2 Dean, School of Engineering

The administrative officer responsible for the operation of the School of Engineering.

6.1.3 Reactor Administrator

Provides final policy decisions on all phases of reactor operation and regulations for the facility. The Reactor Administrator (Level 2) is selected by the Chair of the Chemical and Nuclear Engineering Department and shall hold a graduate degree in Engineering. The Reactor Administrator is advised on matters concerning personnel health and safety by the Radiation Safety Officer and/or the Radiation Control Committee. The Reactor Administrator is advised on matters concerning safe operation of the reactor by the Reactor Operations Committee and/or the Reactor Safety Advisory Committee; designates Reactor Supervisors and names the Chief Reactor Supervisor; approves all regulations, instructions and procedures governing facility operation; submits the annual report to NRC; and is responsible for control of and changes to the cipher locks of the Nuclear Engineering Laboratory Building.



Figure 1

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6.1.4 *Radiation Safety Office*

The Radiation Safety Office will provide emergency direction and assistance for situations involving radiation safety. The UNM Radiation Safety Officer normally represents the Radiation Control Committee in matters concerning the radiation safety aspects of reactor

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Reviews, evaluates, and audits reactor operations and procedures to ensure that the reactor shall be operated in a safe and competent manner. There shall be at least four members on the RSAC with at least two members from organizations outside the University. The Committee is available for advice and assistance on reactor operation problems. Any major change in the facility shall be approved by the RSAC.

6.1.6 Reactor Operations Committee

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Consists of the Reactor Supervisors with the Chief Reactor Supervisor. Other qualified persons may also be members. They are directly responsible to the Reactor Administrator for the preparation and submission of detailed procedures, regulations, forms, and rules to ensure the maintenance, safe operation, competent use and security of the facility. The Committee ensures that all the activities, experiments, and maintenance involving the facility are properly logged and are in accordance with established local and U.S. Nuclear Regulatory Commission regulations. They review all proposed changes in procedure or changes in the facility and approve any minor change before the change is implemented.

6.1.7 Chief Reactor Supervisor

Shall hold a Senior Reactor Operator's license issued by the NRC. He/she is responsible for the distribution and enforcement of rules, regulations and procedures concerning operation of the facility. The Chief Reactor Supervisor (Level 3) is directly responsible for enforcing operating procedures and ensuring that the facility is operated in a safe, competent and authorized manner. He/she is directly responsible for all prescribed logs and records; is the Emergency Director for emergencies not involving radiation; and has the authority to authorize experiments or procedures which have received appropriate prior approval by the Reactor Operations Committee, the Reactor Safety Advisory Committee and/or the Committee on Radiation Control (or the Radiation Safety Officer) and have received prior authorization by the Reactor Administrator. He/she shall not authorize any proposed changes in the facility or in procedure until appropriate evaluation and approval has been made by the Reactor Operations Committee or the Reactor Safety Advisory Committee and authorization given by the Reactor Administrator.

6.1.8 *Reactor Supervisors*

Shall hold valid Senior Reactor Operator's licenses issued by the Nuclear Regulatory Commission. A Reactor Supervisor shall be in charge of the facility at all times during reactor operation and shall witness the startup and intentional shutdown procedures. The Reactor Supervisors are directly responsible to the Chief Reactor Supervisor. A Reactor Supervisor shall be present when the reactor is going critical, being intentionally shut down, or when reactor experiments are loaded or unloaded. The location of the Reactor Supervisor shall be known to the Reactor Operator at all times during operation so that it is possible to contact him/her if required.

6.1.9 Reactor Operators of the second s

Shall hold a valid Reactor Operator's license issued by the NRC. They shall conform to the rules, instructions and procedures for the startup, operation and shutdown of the reactor, including emergency procedures. Within the constraints of the administrative and supervisory controls outlined above, a reactor operator will be in direct charge of the control console at all times that the reactor is operating. The reactor operator shall maintain complete and

bet the accurate records of all reactor operations in the operational logs as the technological technological and the states of the s

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6.1.12 Reactor Assistants

These are individuals who are present during reactor operation to provide assistance to the Operator as needed, with the exception that a Reactor Assistant does not operate the controls of the reactor. In an emergency, or if asked, they may push the Reactor Scram button.

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6.1.13 Operating Staff

- a. The minimum operating staff, during any time in which the reactor is not secured by shall consist of all of the following: a contract of the second of the theory of the second of the following for a second of the second of the second of the
 - 1. One Reactor Operator or Reactor Supervisor in the reactor control room.
 - 2. One other person in the reactor room or Nuclear Reactor Laboratory qualified to activate manual scram and initiate emergency procedures.
 - 3. One health physicist who can be readily contacted by telephone and who can arrive at the reactor facility within 30 minutes.
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 - 4. One Reactor Supervisor readily available on call. This requirement can be satisfied by having a licensed Reactor Supervisor perform the duties stated in paragraph 1 or 2 above or by designating a licensed Reactor Supervisor who can be readily contacted by telephone and who can arrive at the reactor facility within 30 minutes.

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- b. A Senior Reactor Operator shall supervise all reactor maintenance or modification which could affect the reactivity of the reactor.
 - A listing of reactor facility personnel by name and phone number shall be conspicuously posted in the reactor control room.

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6.2 Staff Qualifications

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The Chief Reactor Supervisor, licensed Reactor Supervisors and Reactor Operators, and technicians performing reactor maintenance shall meet the minimum qualifications set forth in ANSI 15.4, "Standards for Selection and Training of Personnel for Research Reactors". Reactor Safety Advisory Committee members shall have a minimum of five (5) years experience in a technical profession or a baccalaureate degree and two (2) years of professional experience. The Radiation Safety Officer shall have a baccalaureate degree in biological or physical science and have at least two (2) years experience in health physics.

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6.3 <u>Training</u>

The Reactor Administrator shall be responsible for directing training as set forth in ANSI 15.4-1977, "Standards for Selection and Training of Personnel for Research Reactors". All licensed reactor operators shall participate in requalification training as set forth in 10 CFR 55.

6.4 <u>Reactor Safety Advisory Committee</u>

6.4.1 Meetings and Quorum

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The Reactor Safety Advisory Committee shall meet as often as deemed necessary by the Reactor Safety Advisory Committee Chair but shall meet at least semiannually (interval not to exceed seven and one-half months). A quorum for the conduct of official business shall be

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The Reactor Safety Advisory Committee shall review:

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a. Safety evaluations for changes to procedures; requipment or systems, and tests or experiments, conducted without Nuclear Regulatory Commission approval under the set there are provision of the 0% CFR v50.59 storverify that such actions do not constitute an

unreviewed safety question the second and the second descendances

b. Proposed changes to procedures, equipment or systems that change the original intent or use, and are non-conservative, or those that involve an unreviewed safety question as defined in 10 CFR 50:59. A set of the set of a state of the set o

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Proposed tests of experiments which are significantly different from previous approved tests or experiments for those that involve an unreviewed safety question as defined in 100°CFR 50:59 for the store of the proposed being being being being being and particulated

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- e. Violations of applicable statutes, codes, regulations, orders, Technical Specifications, license requirements, or internal procedures or instructions having nuclear safety significance.
- f. Significant operating abnormalities or deviations from normal and expected performance of facility equipment that affect nuclear safety.
- g. Reportable occurrences.
- h. Audit reports.

6.4.3 Audits

Audits of facility activities shall be performed at least annually (interval not to exceed 15 months) under the cognizance of the Reactor Safety Advisory Committee but in no case by the personnel responsible for the item audited. These audits shall examine the operating records and encompass, but shall not be limited to, the following:

- a. The conformance of the facility operation to the Technical Specifications and applicable license conditions, at least annually (interval not to exceed 15 months).
- b. The Facility Emergency Plan and implementing procedures, at least every two years (interval not to exceed 30 months).
- c. The Facility Security Plan and implementing procedures, at least every two years (interval not to exceed 30 months).
- d. Operator requalification program and records, at least every two years (interval not to exceed 30 months).
- e. Results of actions taken to correct deficiencies, at least annually (interval not to exceed 15 months).

6.4.4 Authority

The Reactor Safety Advisory Committee shall report to the Reactor Administrator and shall advise the Chief Reactor Supervisor on those areas of responsibility outlined in Section 6.1.5 of these Technical Specifications.

6.4.5 Minutes of the Reactor Safety Advisory Committee

One member of the Reactor Safety Advisory Committee shall be designated to direct the preparation, maintenance, and distribution of minutes of its activities. These minutes shall include a summary of all meetings, actions taken, audits, and reviews. Minutes shall be distributed to all RSAC members, all administrative levels, and the Radiation Safety Officer within 2 months (interval not to exceed 10 weeks) after each meeting.

6.5 Approvals

The procedure for obtaining approval for any change, modification, or procedure which requires approval of the Reactor Safety Advisory Committee is as follows:

- The Chief Reactor Supervisor shall prepare the proposal for review and approval by a. the Reactor Administrator. the strate of the
- The Reactor Administrator shall submit the proposal to the Reactor Safety Advisory b. Committee for review, comment, and possible approval.

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- The Reactor Safety Advisory Committee shall approve the proposal by majority vote. С.
- The Reactor Administrator shall provide final approval after receiving the approval d. of the Reactor Safety Advisory Committee) a blook of the second

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There shall be written procedures that cover the following activities:

- Startup, operation, and shutdown of the reactor. a.
- Fuel movement and changes to the core and experiments that could affect reactivity. b.
- Conduct of irradiations and experiments that could affect the operation or safety of c. The second second second the reactor. and the second states

d. Preventive or corrective maintenance which could affect the safety of the reactor. · .

- Routine reactor maintenance. e.
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Radiation Safety Protection for all reactor related personnel. f.

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- Surveillance, testing and calibration of instruments, components, and systems as g. : specified in Section 4.0 of these Technical Specifications.
- h. Implementation of the Security Plan and Emergency Plan.

The above listed procedures shall be approved by the Reactor Administrator and the Reactor Safety Advisory Committee. Temporary procedures which do not change the intent of previously approved procedures and which do not involve safety question may be employed on approval by the Chief Reactor Supervisor.

6.7 <u>Experiments</u>

- a. Prior to initiating any new reactor experiment, an experimental procedure shall be prepared by the Chief Reactor Supervisor and reviewed and approved by the Reactor Safety Advisory Committee.
- b. Experiments shall only be performed under the cognizance of the Chief Reactor Supervisor.

6.8 <u>Safety Limit Violations</u>

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The following actions shall be taken in the event a Safety Limit is violated:

- a. The reactor will be shut down immediately and reactor operation will not be resumed without authorization by the Nuclear Regulatory Commission (NRC).
- b. The Safety Limit Violation shall be reported to the NRC Operations Center, the Director of NRR, the Reactor Safety Advisory Committee, and Reactor Administrator not later than the next work day.
- c. A Safety Limit Violation Report shall be prepared for review by the Reactor Safety Advisory Committee. This report shall describe the applicable circumstances preceding the violation, the effects of the violation upon facility components, systems, or structures, and corrective action to prevent recurrence.
- d. The Safety Limit Violation Report shall be submitted to the NRC and the Reactor Safety Advisory Committee within 14 days of the violation.

6.9 Reporting Requirements

In addition to the applicable reporting requirements of Title 10, Code of Federal Regulations, the following reports shall be submitted to the Director, Office of Nuclear Reactor Regulation, USNRC, Washington D.C., 20555, Attention: Document Control Desk.

6.9.1 Annual Operating Report

Routine annual operating reports shall be submitted no later than ninety (90) days following June 30. The annual operating reports shall provide a comprehensive summary of the operating experience having safety significance gained during the year, even though some repetition of previously reported information may be involved. References in the annual operating report to previously submitted reports shall be clear. : 1

Each annual operating report shall include:

1. A brief narrative summary of

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a. Changes in facility design, performance characteristics, and operating procedures related to reactor safety that occurred during the reporting period.

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b. Results of major surveillance tests and inspections.

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2. A tabulation showing the hours the reactor was operated and the energy produced by the and the same of a part of star and the program in the reactor in watt-hours.

3) List of the unscheduled shutdowns, including the reasons therefore and corrective action e es la **takerí a frány**verante en a colla prancifació este no esta la conserva a conserva este esta este esta e according which communicately the testing model in an according to a second

4. Discussion of the major safety related corrective maintenance performed during the period, including the effects, if any, on the safe operation of the reactor, and the reasons for the corrective maintenance required.

5. A brief description of:

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a. Each change to the facility to the extent that it changes a description of the

facility in the application for license and amendments thereto.

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b. Changes to the procedures as described in Facility Technical Specifications.

c. Any new experiments or tests performed during the reporting period.

6. A summary of the safety evaluation made for each change, test or experiment not submitted for NRC approval pursuant to 10 CFR 50.59 which clearly shows the reason leading to the conclusion that no unreviewed safety question existed and that no Technical Specifications change was required.

7. A summary of the nature and amount of radioactive effluent released or discharged to the environs beyond the effective control of the licensee as determined at or prior to the point of such release or discharge.

a. Liquid Waste (summarized for each release)

 Total estimated quantity of radioactivity released (in Curies) and total volume (in liters) of effluent water (including diluent) released.

b. Solid Waste (summarized for each release)

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1. Total volume of solid waste packaged (in cubic meters)

2. Total activity in solid waste (in Curies)

3. The dates of shipment and disposition (if shipped off site).

8. A description of the results of any environmental radiation surveys performed outside the facility.

9. Radiation Exposure - A summary of personnel exposures received during the reporting period by facility personnel and visitors.

6.9.2 Reportable Occurrences

Reportable occurrences, including causes, probable consequences, corrective actions and measures to prevent recurrence, shall be reported to the NRC as described in Section 6.9.

Supplemental reports may be required to fully describe final resolution of the occurrence. In case of corrected or supplemental reports, an amended licensee event report shall be completed and reference shall be made to the original report date.

a. Prompt Notification with Written Follow-up

The types of events listed below are considered reportable occurrences and shall be reported as expeditiously as possible by telephone and confirmed by telegraph, mailgram, or facsimile transmission to the NRC Operations Center no later than the first work day following the event, with a written follow-up report within two weeks as described in Section 6.9. Information provided shall contain narrative material to provide complete explanation of the circumstances surrounding the event.

1. Failure of the reactor protection system or other systems subject to limiting safety system settings to initiate the required protective function by the time a monitored parameter reached the set point specified as the limiting safety system setting in the Technical Specifications or failure to complete the required protective function.

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2. Operation of the reactor or affected systems when any parameter or operation subject to a limiting condition is less conservative than the limiting condition for operation established in the Technical Specifications - without taking permitted remedial action.

3. Abnormal degradation discovered in a fission product barrier.

4. Reactivity balance anomalies involving:

- a. Disagreement between expected and actual critical rod positions of approximately $0.3\% \Delta k/k$.
- b. Exceeding excess reactivity limit.
- c. Shutdown margin less conservative than specified in Technical Specifications.
- d. If sub-critical, an unplanned reactivity insertion of more than approximately $0.5\% \Delta k/k$ or any unplanned criticality.

5. Failure or malfunction of one (or more) component(s) which prevents or could prevent, by itself, the fulfillment of the functional requirements of system(s) used to cope with accidents analyzed in the Safety Analysis Report.

6. Personnel error or procedural inadequacy which prevents, could prevent, by itself, the fulfillment of the functional requirements of system(s) used to cope with accidents analyzed in the Safety Analysis Report.

7. Unscheduled conditions arising from natural or manmade events that, as a direct result of the event, require reactor shutdown, operation of safety systems, or other protective measures required by Technical Specifications.

8. Errors discovered in the analyses or in the methods used for such analyses as idescribed in the Safety Analysis Report for in the bases for the Technical Specifications that have or could have permitted reactor operation in a manner less conservative than assumed in the analysis.

9. Release of radiation or radioactive materials from site above allowed limits.

10. Performance of structures, systems, or components that requires remedial action or corrective measures to prevent operation in a manner less conservative than assumed in the accident analysis in the SAR or Technical Specifications that require remedial action or corrective measures to prevent the existence or development of an unsafe condition.

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6.9.3 Special Reports

Special reports which may be required by the Nuclear Regulatory Commission shall be submitted to the Director, Office of Nuclear Reactor Regulation, USNRC within the time period specified for each report. This includes personnel changes in Level 1. (University President), 2 (Reactor Administrator) or 3 (Chief Reactor Supervisor) administration, as shown in Figure 1, which shall be reported within 30 days of such a change.

6.10 <u>Record Retention</u>

6.10.1 Records to be Retained for a Period of at Least Five Years

a. Operating logs or data which shall identify:

1. Completion of pre-startup check-out, startup, power changes, and shutdown of the reactor.

affect core reactivity. The set of the set o

3. Installation or removal of jumpers, special tags or notices, or other temporary

Index m4:08 Rod worth measurements and other reactivity measurements.
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c. Reportable occurrences.

d. Surveillance activities required by Technical Specifications.

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set f. Experiments performed with the reactor. This requirements may be satisfied by the normal set operations log-book plus; and the final set of the set

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1. Records of radioactive material transferred from the facility as required by license.

2. Records required by the Reactor Safety Advisory Committee for the performance of new or special experiments.

g. Records of training and qualification for members of the facility staff.

h. Changes to operating procedures.

6.10.2 Records to be Retained for the Life of the Facility

a. Records of liquid and solid radioactive effluent released to the environs.

b. Off-site environmental monitoring surveys.

c. Fuel inventories and fuel transfers.

d. Radiation exposures for all personnel.

e. Drawings of the facility.

f. Records of reviews performed for changes made to procedures or equipment or reviews of tests and experiments pursuant to 10 CFR 50.59.

g. Records of meetings of the Reactor Safety Advisory Committee, and copies of RSAC audit reports.

Revised February 2007

APPENDIX E

OPERATOR REQUALIFICATION PROGRAM

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OPERATOR AND SENIOR OPERATOR REQUALIFICATION PROGRAM

UNIVERSITY OF NEW MEXICO AGN-201M REACTOR FACILITY

A. Introduction

The University of New Mexico AGN-201M Reactor Facility is used primarily as a training reactor for undergraduate and graduate students. Experiments performed include sample activation, an approach to critical, reactor period and reactivity measurements, control rod calibrations, importance function measurements, and transfer function measurements. The reactor is also used for activation of samples for the College of Pharmacy and the Departments of Archaeology and Chemistry.

Licensed staff for the Facility is made up of personnel from three categories:

1. Faculty Members: Reactor supervisors (including the Chief Reactor Supervisor) are faculty members who are licensed senior operators. The faculty members are regularly engaged in teaching reactor theory, reactor engineering, and nuclear engineering laboratory courses.

2. Nuclear Engineering Students: Students serve as Lab assistants, teaching assistants, and licensed operators. These students are actively engaged in a rigorous academic program covering reactor theory, reactor engineering, and nuclear engineering laboratory experimental methods. Students who have been licensed generally serve as operators for 2 to 3 years while they are completing their graduate study programs.

3. Nuclear Engineering Laboratory Technician: The Technician is a licensed operator or licensed senior operator who generally has had previous reactor experience, and who serves the dual function of teaching assistant, and reactor maintenance technician.

For all three categories of personnel, the typical training program for preparation to take the licensing exam has been about 1 day/week for 12 weeks. Because of the academic and work experience of the staff and the basic simplicity of the reactor facility and operating procedures, extensive training programs are not required. Therefore it is concluded that the requalification program for licensed personnel of this facility will not be required to be as elaborate and extensive as that outlined in Appendix A of 10CFR55.
B. Requalification Program

1. Schedule

A one-day requalification training session will be scheduled annually. All licensed personnel will be required to participate. For scheduling purposes the session may consist of two $\frac{1}{2}$ day sessions.

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2. Lectures

One-half-day of the Training session will consist of a review and discussion of the material prepared for new operator and senior operator trainees. This material

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c General operating characteristics

datsSafety systems of hours and in the second all of how of the burg

e. Instrumentation and controls

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ans rgrdrStandardbanddemergency operating procedures of whether of the charter (haved and

while Radiation monitoring equipment is a state of the state of the paper data

i. Radiological safety

j. Technical specifications and bases

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The Chief Reactor Supervisor or the Reactor Administrator will keep the Operations staff current with changes in the facility and with information from other sources. This can be done through meetings of the Reactor Operations Committee, email, memo, RSAC minutes, or other written documents. Notification of substantial changes will be documented in the individual training files of the licensed personnel.

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3. On-the-job Training

The other half-day of the training session will consist of the following activities:

a. Review and perform a monthly maintenance check

b. Review and perform a daily reactor checkout

c. Startup of the reactor and operation at licensed power

d. Measurement of excess reactivity

e. Measurement of reactivity worths of typical samples used in the training and activation experiments

f Measurement of a safety rod reactivity worthy using rod-drop techniques

g. Simulated emergency with practice evacuation

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Manipulation of the controls during these checks and operations will be rotated among the participating personnel. Participation in this session will assure that each licensed operator or senior operator is cognizant of facility design changes, procedure changes, and facility license changes.

UNM AGN-201 Operator and Senior Operator Requalification Program

4. Evaluation

A bi-annual written examination covering the topics specified in B.2: Each licensed individual shall be given a bi-annual written examination covering the areas described in Section B.2 of this document. (The licensed individual who develops, administers, and grades these examinations shall be waived from taking the examination at that time. The responsibility for the examination shall rotate among the licensed senior operators or other qualified individuals so that each licensed senior operator shall be evaluated at least every four years.) A score of 70% or higher will require no additional training.

An overall score of 55% to 69% requires additional training in those areas or topics where weakness or deficiencies are indicated. During the training, the individual can continue to perform licensed duties under the supervision of adjecensed senior operator. After the training program is completed, an oral examination shall be administered to evaluate the individual's performance in those areas covered by the program. Unsuccessful performance on the oral examination shall require the individual to complete an accelerated training program followed by a written examination. An overall score below 55% requires that an individual be relieved of licensed duties and receive training in an accelerated program. The accelerated program shall cover those areas where weakness and deficiencies are indicated, and it shall be completed within four months following the grading of the written examination. After the accelerated training is completed, a written examination shall be administered and successfully completed before the individual can resume performance of licensed duties.

Evaluation of Reactor Operation by Certified Individuals: To maintain active status, each certified individual shall actively perform the functions of an operator or senior operator for a minimum of four hours per calendar quarter. Supervision of these functions by licensed senior operators shall be considered equivalent to actual performance. Each certified individual is required to take an annual operational exam requiring the operator or senior operator to demonstrate an understanding of and the ability to perform the actions necessary to accomplish a comprehensive sample of items specified in 10CFR55.45(a) (2) through (13) inclusive to the extent applicable to the facility. These may include but are not limited to reactivity manipulations in startup, shutdown, and other significant reactivity changes that demonstrate skill or familiarity with the reactivity control systems and general familiarity with the reactor safety systems. Responsibility for these exams shall rotate among the senior operations staff. If any weakness is noted during the quarter or from the operational exam, then additional operation times will be scheduled for retraining. After this is completed, the individual will undergo an additional operational examination to ensure that the individual can competently manipulate the controls of the reactor. If the weakness is in a safety area, then the individual will be relieved of licensed duties until the deficiency is corrected.

5. Records

A separate file for each licensed operator or senior operator shall be established. The attached form will be used to record and certify (1) participation in the requalification training sessions (2) reactivity control manipulations, and (3) written and oral examination results. These files will also contain copies of written examinations administered, the answers given by the licensee, and any additional information regarding training or requalification or each licensee.

Revised as of February 13, 2007

APPENDIX F

EMERGENCY PLAN

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APPENDIX G

PHYSICAL SECURITY PLAN