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ADVANCED HYBRID PARTICULATE COLLECTOR PROJECT MANAGEMENT PLAN

Report

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ADVANCED HYBRID PARTICULATE COLLECTOR PROJECT MANAGEMENT PLAN

EXECUTIVE SUMMARY

As the consumption of energy increases, its impact on ambient air quality has become a significant concern. Recent studies indicate that fine particles from coal combustion cause health problems as well as atmospheric visibility impairment. These problems are further compounded by the concentration of hazardous trace elements such as mercury, cadmium, selenium, and arsenic in fine particles. Therefore, a current need exists to develop superior, but economical, methods to control emissions of fine particles.

Since most of the toxic metals present in coal will be in particulate form, a high level of fine-particle collection appears to be the best method of overall air toxics control. However, over 50% of mercury and a portion of selenium emissions are in vapor form and cannot be collected in particulate control devices. Therefore, this project will focus on developing technology not only to provide ultrahigh collection efficiency of particulate air toxic emissions, but also to capture vapor-phase trace metals such as mercury and selenium.

Currently, the primary state-of-the-art technologies for particulate control are fabric filters (baghouses) and electrostatic precipitators (ESPs). However, they both have limitations that prevent them from achieving ultrahigh collection of fine particulate matter and vapor-phase trace metals. The objective of this project is to develop a highly reliable advanced hybrid particulate collector (AHPC) that can provide >99.99% particulate collection efficiency for all particle sizes between 0.01 and 50 μm , is applicable for use with all U.S. coals, and is cost-competitive with existing technologies.

Phase I of the project is organized into three tasks:

Task 1 – Project Management, Reporting, and Subcontract Consulting

Task 2 – Modeling, Design, and Construction of 200-acfm AHPC Model

Task 3 – Experimental Testing and Subcontract Consulting

ADVANCED HYBRID PARTICULATE COLLECTOR PROJECT MANAGEMENT PLAN

1.0 BACKGROUND

As the consumption of energy increases, its impact on ambient air quality has become a significant concern. Fine particles from coal combustion cause health problems as well as atmospheric visibility impairment. These problems are further compounded by concentration of hazardous trace elements such as mercury, cadmium, selenium, and arsenic in fine particles. Recent studies indicate that current levels of fine particles in the atmosphere are causing up to 60,000 excess deaths per year and that the current ambient air quality standard for PM₁₀ may not adequately protect public health (1). Since most of the toxic metals present in coal will be in particulate form, a high level of fine particle collection appears to be the best method of overall air toxics control. However, over 50% of mercury and a portion of selenium emissions are in vapor form and not collected in particulate control devices. Therefore, this project will focus not only on developing technology to provide ultrahigh collection efficiency of particulate air toxic emissions, but also on capturing vapor-phase trace metals such as mercury and selenium.

A new concept for fine particulate control should not only retain the best advantages of current technology but should also make significant improvements. The advanced hybrid particulate collector (AHPC) is a truly advanced new concept for particulate control based on sound theoretical principles. The intent of the AHPC is to combine the best features of electrostatic precipitators (ESPs) and baghouses in an entirely new manner. The AHPC concept consists of a combination of fabric filtration and electrostatic precipitation in the same box, providing major synergism between the two collection methods, both in particulate collection and in the transfer of dust from the bags or plates to the hopper. The filtration aspect of the AHPC overcomes the problem of poor collection efficiency of 0.1- to 1.0- μ m particles in conventional ESPs, and the ESP aspect of the AHPC solves the problem of on-line cleaning of high air-to-cloth (A/C) ratio bags.

Objective

The objective of the project is to develop a highly reliable AHPC that can provide >99.99% particulate collection efficiency for all particle sizes from 0.01 to 50 μm , is applicable for use with all U.S. coals, and is cost-competitive with existing technologies.

2.0 DESCRIPTION OF AHPC CONCEPT

The AHPC will combine the best features of ESPs and baghouses in a uniquely new manner. The AHPC concept consists of a combination of fabric filtration and electrostatic precipitation in the same box, providing major synergism between the two collection methods, both in the particulate collection step and in transfer of the dust from the bags or plates to the hopper. The filtration aspect of the AHPC overcomes the problem of poor collection efficiency of 0.1- to 10- μm particles in conventional ESPs, and the ESP aspect of the AHPC solves the problem of on-line cleaning of high-A/C-ratio bags.

The geometric configuration of the AHPC concept can be understood by comparing the configuration with a conventional pulse-jet baghouse technology. In a typical pulse-jet baghouse, the individual bags or filtration tubes are 12.7 to 15.2 cm (5 to 6 in.) in diameter, 3 to 4.6 m (10 to 15 ft) long, and mounted in suspension from a tube sheet. The dust is collected on the outside of the bags, while the flue gas passes through the fabric to the inside, then exits through the top of the bags into the clean air plenum, and subsequently out the stack. Cages are installed inside the bags to prevent them from collapsing during normal filtration. Air nozzles are installed above each bag to clean the bags with a quick burst of high-pressure air directed inside the bags. The burst of air, or cleaning pulse, causes a rapid expansion of the bag and momentarily reverses the direction of gas through the bag, both of which help to clean the dust off the bags. Typically, pulse-jet bags are oriented in a rectangular array spaced only about 5.1 cm (2 in.) apart. The bags are usually pulse-cleaned one row at a time in sequence, with up to 15 bags per row. Because of the narrow bag spacing and forward filtration through the two adjacent rows, much of the dust that is removed from one row of bags is simply recollected on the adjacent bags. Only very large agglomerates of dust reach the hopper after pulsing. The phenomenon of redispersion and recollection of dust after bag cleaning is one of the major obstacles to operation of baghouses at higher A/C ratios.

In the AHPC concept, approximately three out of four rows of bags will be removed and a grounded plate will be placed between each two rows of bags. High-voltage corona discharge electrodes (wires or rigid frame) will be installed between each plate and row of bags. A top view of this configuration is shown in Figures 1 and 2. The spacings from the wires to the plates will be 6 in. and from the wires to the bags will be 17.8 cm (7 in.). The smaller wire-to-plate spacing will help to force any sparking from the wires to the plates rather than to the bags. An additional safety option to help protect the bags would be to install a row of grounded wires approximately 2.5 cm (1 in.) from the bags; however, this extra row of grounded wires may not be necessary.

Gas flow will be introduced into opposite sides of a compartment and directed by baffles into the ESP zone, as shown in Figure 1. The particles in the ESP zone will immediately become

Figure 1. Top view conceptual design of a full-scale compartment for the AHPC.

Baghouse Inlet

Figure 2. Top view of multicompartment full-scale AHPC.

charged and will migrate toward the grounded plate at a migration velocity dependent upon the particle charge and electric field strength. Since all of the gas flow passes the wires before reaching the bags, there will be a gas flow velocity component perpendicular to the plates. If the bags shown in Figure 1 operate at an air-to-cloth ratio of 3.66 m/min (12 ft/min), the velocity toward the bags perpendicular to the plates will be 7 cm/s (0.23 ft/s). Since migration velocities in ESPs greater than 7 cm/s can be achieved for all but submicron particles, most of the particles will collect on the plates rather than being carried past the wires to the bags. Under ideal laminar flow conditions, only particles with migration velocities smaller than 7 cm/s (about 1% to 3% of the total mass) will reach the bags during normal filtration. However, because of some flow maldistribution and the presence of turbulent flow, about 10% of the dust may reach the bags during normal filtration. Even if more than 10% of the dust reaches the bags without being initially collected on the plates, the AHPC concept will still be successful because of several other effects. One additional factor that will enhance particle collection is the effect of precharging the particles before they reach the fabric. Charged particles are more readily collected because there is an additional coulombic force to drive the particles to a grounded or neutral surface. In addition, a dust cake formed from charged particles will be more porous, producing a lower pressure drop (2).

To successfully demonstrate this concept, the fabric used should be of high quality to ensure ultrahigh collection efficiency as well as high endurance to frequent high-energy pulsing. In addition, the fabric should also be reliable under the most severe chemical environment likely to be encountered (such as high SO_3). GORE-TEX® membrane on GORE-TEX felt has such quality and is already commercially available, but is not widely applied to coal-fired boilers because of its much higher cost compared to conventional fabrics. GORE-TEX membrane filter bags consist of a microporous expanded polytetrafluoroethylene (PTFE) membrane laminated to a felted or fabric backing material. Consequently, even fine, nonagglomerating particles do not penetrate the filter, resulting in significant improvements in filtration efficiency, especially for submicron particles. An example of the superior collection efficiency from bench-scale tests is shown in Figure 3, where the level of emissions after filtering fly ash is cleaner than ambient air. This fabric is also rugged enough to hold up under rigorous cleaning, and the all-PTFE construction alleviates concern over chemical attack under the most severe chemical environments. Although the GORE-TEX membrane filter medium is more expensive than conventional fabrics, the much smaller surface area required for the AHPC will make using the GORE-TEX membrane economical.

Figure 3. Bench-scale results showing superior fine-particle collection efficiency for GORE-TEX membrane filter medium.

Ultrahigh fine-particle collection levels can be achieved by a combination of removing about 90% of the dust before it reaches the fabric, precharging the particles, and using a GORE-TEX membrane on GORE-TEX felt fabric. However, adequately dislodging the dust from the bags and transferring it to the hopper must also be accomplished. Herein is one of the key advances in the AHPC concept. The bags will be cleaned with sufficient energy to propel most of the dust past the high-voltage wires, where it will be trapped in the ESP zone. The alternative rows of bags, wires, and plates will serve as an "electronic curtain" to prevent the reentrained dust from being recollected on the bags. This effect will enhance bag cleaning greatly and make control of pressure drop much easier. When the ESP plates are rapped, some of the reentrainment cloud will likely penetrate the ESP zone, but this dust will be collected at an ultrahigh collection efficiency by the bags. This makes redundant downstream fields completely unnecessary.

However, the amount of reentrainment from the ESP rapping will not be as severe as with conventional ESPs, because the superficial gas velocity will be much lower than the conventional 1.5 m/s (5 ft/s). Thus, a major synergism is created between the ESP and filtration modes, each improving the operation of the other. The filter will collect the excess ESP emissions during normal operation and during rapping, and the ESP will collect the reentrained dust from the bags upon cleaning, which will greatly enhance the ability to control pressure drop at high A/C ratios. Furthermore, the AHPC completely eliminates the problem of sneakage in conventional ESPs, because all of the flow must pass through the bags.

While very large ESPs are required to achieve >99% collection of the fine particles, a small ESP can remove 90% to 95% of the dust. For example, in the EERC tubular, single-wire, pilot-scale ESP, most of the dust is collected in the bottom third (as indicated by visual observation through sight ports). The whole length of the tube provides a specific collecting area (SCA) of 125 ft²/1000 acfm, so if only the bottom third were used, the SCA would be only about 40 ft²/1000 acfm. Of course, excess emissions would occur during rapping, since there would be no downstream field to collect the rapping puff. However, even if rapping puffs are included, 90% to 95% collection efficiency can be achieved with full-scale precipitators with an SCA of less than 100 ft²/1000 acfm (3). In the AHPC concept, only enough ESP plate area should be used to remove approximately 90% of the dust and to sufficiently trap the reentrained dust after bag cleaning. Similarly, the cloth area should be held to a minimum to keep the cost reasonable. In the configuration shown in Figure 1, the fabric area is only slightly larger than the plate area (a ratio of 1:1.16). If the fabric is operated at an A/C ratio of 0.06 m/s (12 ft/min), the corresponding SCA of the ESP would be 72 ft²/1000 acfm, which should easily remove at least 90% of the dust. Interestingly, an alternative definition of SCA is simply the inverse of A/C ratio multiplied by 1000. A baghouse operating at an A/C ratio of 0.01 m/s (2 ft/min) has the same collection area as an ESP with an SCA of 1000 ft²/1000 acfm. Both of these are typical of the size of collector employed for new power plants. Therefore, an AHPC operating at an A/C ratio of 0.06 m/s (12 ft/min) would offer an 83% reduction in fabric area over a conventional baghouse operating at 2 ft/min and an 86% reduction in plate area over a conventional ESP with an SCA of 500 ft²/1000 acfm. The combined collection area in the AHPC would be 69% lower than either the conventional baghouse or ESP. However, 0.06 m/s (12 ft/min) appears to be a conservative estimate for the AHPC because some industrial baghouses already operate at A/C ratios of

0.04–0.06 m/s (8–12 ft/min) with full dust loading. Very likely, the AHPC will be able to operate at 0.08–0.12 m/s (16–24 ft/min). At an A/C ratio of 16 ft/min, the total plate and fabric collection area would be 77% less than either the conventional baghouse or ESP. Therefore, the AHPC has significant potential to be less costly than existing technology.

The AHPC concept as described should offer a significant improvement over conventional ESPs or baghouses. However, another advanced concept, which would reduce the size of the AHPC even further, is the use of a high-surface-area cage design that has the potential to at least double the available surface area for the same diameter bag. The success of the AHPC is not highly dependent upon such a development, but it demonstrates that the AHPC has the potential to remain cost-competitive with other advanced concepts well into the future.

High-resistivity dusts are expected to cause problems with the ESP portion of the AHPC, just as they do with state-of-the-art ESPs. However, the AHPC is expected to handle high-resistivity dusts much better than an ESP, because the emissions in the AHPC are determined primarily by what happens in the filtration zone rather than what happens in the ESP zone. High-resistivity dust might increase the portion of the total dust that the filter must handle, which could make pressure drop control more difficult. In the worst case, the A/C ratio might have to be reduced, but fine-particle collection efficiency would not deteriorate. An analysis might show that in some cases, with extremely high-resistivity dust, it would be more cost-effective to employ conditioning agents such as ammonia (NH_3) and sulfur trioxide (SO_3). Here again, the synergism of the AHPC is demonstrated, because SO_3 and NH_3 not only reduce resistivity to improve ESP performance but also significantly reduce particulate emissions and pressure drop in fabric filters (4). Alternative conditioning agents being developed in DOE-supported research could be employed if they prove to be superior to SO_3 and NH_3 .

All of the toxic trace elements that are in the particulate phase should be controlled with the AHPC at an efficiency of at least 99.99%. However, the AHPC will not collect mercury unless a method is found to make all of the mercury collect on the fly ash. In some cases, up to 90% of mercury is retained by the fly ash (depending on temperature and mercury species), but the other factors that determine the amount of mercury associated with fly ash are not well known. Recent DOE-supported research at the Energy & Environmental Research Center (EERC) shows that

mercury control in conventional particulate devices can be enhanced by upstream injection of an appropriate mercury sorbent, such as activated carbon. Evidence also indicates that ESPs do not provide as effective gas-solid contact as baghouses and subsequently do not achieve as high mercury control with sorbents as baghouses. Since over 80% of the full-scale coal-fired boilers have ESPs, effective mercury control for these installations remains challenging. If the powdered activated carbon is smaller (3–5 μm) than the median fly ash particle size (10–20 μm), it will preferentially collect on the bags in the AHPC where the best gas-solid contact exists. Therefore, the AHPC should provide better mercury control with sorbents than conventional ESPs.

One other effect may occur in the AHPC that could make mercury control even better than in conventional baghouses. Recent EERC research indicates that some conversion of elemental to oxidized mercury may occur in ESPs. Elemental mercury is not as easily captured by activated carbon as oxidized forms of mercury. In cases where most of the mercury is in elemental form, better total mercury capture might be achieved in the AHPC by conversion of elemental to oxidized mercury in the ESP zone and subsequent improved capture with activated carbon on the bags.

3.0 DETAILED PROJECT WORK PLAN

The project is organized into three tasks:

Task 1 – Project Management, Reporting, and Subcontract Consulting

Task 2 – Applied Modeling, Design, and Construction of 200-acfm AHPC Model

Task 3 – Experimental Testing and Subcontract Consulting

3.1 Statement of Work

3.1.1 Task 1 – Project Management, Reporting, and Subcontract Consulting

3.1.1.1 Subtask 1.1 – EERC Project Management and Reporting

The purpose of Task 1 is to separate the project management aspects of the project from the design and experimental work. Hence this task includes all project management activities such as

TABLE 1

Project Reporting

Report	Frequency	Due Date
Milestone Schedule/Status	Monthly	25 calendar days after reporting period ends
Cost Management	Monthly	25 calendar days after reporting period ends
Technical Progress	Quarterly	30 calendar days after reporting period ends
Key Personnel Staffing	Quarterly	30 calendar days after reporting period ends
Hazardous Substance Plan	Quarterly	30 calendar days after reporting period ends
Hazardous Waste	Quarterly	30 calendar days after reporting period ends
Subcontract	Semiannually	
Summary of Subcontract	Annually	
Conference Record	As required	10 calendar days after the precipitating event
Property	As required	
Phase I Draft Final		July 31, 1997
Phase I Approved Final		September 30, 1997
Phase II Downselection Proposal		July 31, 1997

planning, coordination, communication, travel, and reporting. Table 1 lists reports planned to be submitted during Phase I. Project organization is illustrated in Figure 4.

3.1.1.2 Subtask 1.2 - Subcontract Consulting

ALENTEC was selected to participate with the EERC and W.L. Gore in this project prior to submitting the proposal in response to the original program research and development announcement (PRDA). The selection was based on the need to form as strong a team as possible to accomplish the project objectives. ALENTEC specializes in consulting, technical service, contract research, and computer modeling of emission control and combustion systems. The key person at ALENTEC, Dr. Henry Krigmont, has the strong background in electrostatic precipitation needed to complete the project team. ALENTEC will serve as a consultant to the EERC for the whole project and will be performing specific theoretical modeling. The theoretical modeling and

Figure 4. Project organization chart.

consulting activities of ALENTEC are considered to be part of Task 1 because they will be conducted throughout the project. However, a part of the ALENTEC effort will include review and interpretation of data specific to Task 3. Consulting from ALENTEC will include the following;

- Review of the AHPC design and recommendations for improvements to the 200-acfm working model
- Review of the planned tests and recommendations for refinements to the experimental approach
- Review and interpretation of results generated in Task 3 and, based on preliminary results, recommendations for improving the design and experimental testing of the AHPC

- Recommendations for scaleup of the device to the 1-MW level and to full-scale compartment size
- Specific theoretical ESP and fluid dynamic modeling as described below.

ESP Computer Model. The electrostatic precipitation process involves several complicated and interrelated physical mechanisms: the creation of a nonuniform electric field and ionic current in a corona discharge; the ionic and electronic charging of particles moving in combined electron- and hydrodynamic fields; and the turbulent transport of charged particles to a collection surface. The removal of the collected particulate layer from the collection surface presents a serious problem in many practical applications, since the removal procedure introduces collected material back into the gas stream and causes a reduction in collection efficiency. Other practical considerations that reduce the collection efficiency are nonuniform gas velocity distribution, bypass of the electrified regions by particle-laden gas, and a particle reentrainment during periods when no attempt is being made to remove the collected material.

In recent years, increasing emphasis has been placed on developing theoretical relationships that accurately describe the individual physical mechanisms involved in the precipitation process and on incorporating these relationships into a complete mathematical model for electrostatic precipitation. A reliable theoretical model for electrostatic precipitation should offer several valuable applications:

- Precipitator design can be easily and completely performed by calculation from fundamental principles.
- Can be used in conjunction with a pilot-scale study to design a full-scale precipitator.
- The optimum operating efficiency of an existing precipitator can be established and the capacity to meet particulate emissions standard can also be ascertained.
- An existing precipitator performing below its optimum efficiency can be analyzed with respect to the operating variables in a procedure to troubleshoot and diagnose problem areas.

In addition to its many applications, a mathematical model can be a valuable tool for analyzing precipitator performance because of its cost-and-time saving capabilities.

ALENTEC will be using a modified version of the electrostatic precipitation model developed by Southern Research Institute under the U.S. Environmental Protection Agency (EPA) contract. Its features are as follows:

- It predicts collection efficiency as a function of particle diameter, electrical operating conditions, and gas properties.
- It can calculate clean-plate, clean air voltage current characteristics for discharge electrode-plate geometries.
- It can determine particle charging by unipolar ions as a function of particle diameter, electrical conditions, and residence time.
- It can estimate the effects of particles on electrical conditions under the assumption that effects due to the particulate layer can be ignored.
- It accounts for electrical sectionalization.
- It predicts particle capture at the collection electrode based on the assumptions of completely random turbulent flow, uniform gas velocity, and particle migration velocities that are small compared to the gas velocity.
- It uses empirical correction factors to adjust the particle migration velocities obtained without rapping losses.
- It accounts for the nonideal effects of nonuniform gas velocity distribution, gas bypass of electrified regions, and particle reentrainment from causes other than rapping by using empirical correction factors to scale down the ideally calculated particle migration velocities.

- It accounts for rapping reentrainment by using empirical relationships for the quantity and size distribution of the reentrained mass.

In addition, the ALENTEC version can also model the effects of flue gas conditioning on outlet emissions and stack opacity. The model can predict trends caused by changes in SCA, applied voltage, current density, mass loading, and particle-size distribution. ALENTEC's comparisons of the predictions of the model with full-scale precipitators collecting fly ash from coal-fired boilers resulted in a very good agreement.

Computational Fluid Dynamics (CFD) Model. ALENTEC will conduct a study of fluid patterns when the ESP and fabric filter (barrier/porous filter) technologies are combined in a single compartment. The traditional restriction in flow analysis and design limit accuracy in solving and visualization of fluid flow problems. This applies to both single- and multiphase flows and is particularly true of problems that are 3-dimensional in nature and involve turbulence, chemical reactions, and/or heat and mass transfer. All these can be considered together in the application of CFD, a powerful technique that can help overcome many of the restrictions influencing traditional analysis. Commercially available CFD codes do not account for electrostatic forces.

The compartment volume under study is divided into small cells, and the equation of momentum, energy, and mass transfer are solved numerically within each cell. This provides a good description of flow field variables, velocities, temperatures, or mass concentrations everywhere in the region. The boundary conditions for flow between the precipitator and filter sections could be specified according to the electrostatic, thermodynamic, heat, and mass transfer characteristics at various gas flow and velocities. Mixing, distribution, and collection could then be verified by inspecting concentration profiles in different sections of the AHPC compartment and comparing them to those of laboratory test data.

To conduct a detailed system performance verification, the AHPC compartment will be modeled on a computer. The entire collection process involves turbulent mixing associated with cross-flow streamers governed by the Reynolds-averaged Navier-Stokes equations. These equations will be solved with an aid of the computer using advanced CFD principles.

3.1.2 Task 2 – *Applied Modeling, Design, and Construction*

The primary purpose of Task 2 is to design, construct, and install a working AHPC model on the existing EERC particulate test combustor. The design effort will include some initial flow modeling to help scale the AHPC to the appropriate dimensions. The AHPC model must be designed to elicit sufficient data for scaleup of the AHPC concept.

3.1.2.1 Modeling of AHPC

This task includes some initial flow modeling to help scale the AHPC to the appropriate dimensions. The initial AHPC model will be designed to handle approximately 200 acfm of flue gas, because that is the flow rate for the EERC particulate test combustor. A preliminary design for the 200-acfm AHPC is shown in Figure 5. At this scale, it will not be possible to satisfy all of the important dimensions such as spacing, bag length, and number of bags in a row. But the wire-to-plate and wire-to-bag spacing dimensions will be similar to that of a full-scale unit. The most important operating parameter to simulate is the A/C ratio. At an A/C ratio of 0.06 m/s (12 ft/min), 1.6 m² (16.7 ft²) of fabric is required for a flow rate of 200 acfm. For 12.7-cm (5-in.)-diameter bags, the total required bag length is 3.9 m (12.7 ft). Full-scale pulse-jet bags are typically in the range from 3 to 4.9 m (10 to 16 ft) long, so if full-scale bags were to be employed in the model AHPC, only one bag would be required. A possible design strategy using only one bag would be to install a circular wire high-voltage grid around the bag and then a circular plate on the outside of the wire grid. However, the plate-to-fabric area ratio with this configuration would be much larger than desired, and the effect of transferring dust from a row of circular bags to planar plates would not be duplicated. A better approach is to use four 96.5 cm (38-in.) bags all in one row, as shown in Figure 5. This approach simulates the geometric arrangement in a full-scale AHPC and would facilitate testing the effect of cleaning adjacent bags. Furthermore, testing at 0.08 m/s (16 ft/min) could easily be accomplished by removing one bag and at 0.1 m/s (24 ft/min) by removing two bags. The shorter bag length should not significantly affect the bag-cleaning dynamics, as long as the pulse pressure and volume are normalized for the bag length used.

Figure 5. Conceptual design of 200-acfm AHPC model.

3.1.2.2 Design and Construction of AHPC

For the 200-acfm model shown in Figure 5, sight ports will be installed at strategic locations to facilitate visual inspection and video monitoring of the bags, wires, and plate during normal filtration and cleaning. The AHPC vessel will be heat-traced and insulated for precise temperature control. As part of the design effort for Task 2, gas flow modeling will help to design the proper baffling to ensure uniform flow across the ESP sections.

3.1.3 Task 3 – Experimental Testing and Subcontract Consulting

The experimental work for Phase I is divided into three subtasks, which follow a logical sequence from initial shakedown of the AHPC model through 100-hr proof-of-concept tests.

3.1.3.1 Subtask 3.1 – Cold-Flow Shakedown Testing

The primary purpose of the cold-flow testing with air is to properly adjust the pulse-cleaning parameters and flow baffling to achieve the best interaction between the ESP and filtration zones. Reentrained dust (fly ash) will be injected into the carrier air upstream of the AHPC operating at an A/C ratio of 0.1 m/s (12 ft/min), until the bags show an increase in pressure drop of 15.2 cm (6 in.) of water. The dust feed will then be stopped until the compartments clear of suspended dust to enhance visual observation of the cleaning phenomenon. Tests will be conducted with the electric field on and off to document the benefit of the ESP section for bag cleaning. Independent variables to be adjusted during this subtask will include pulse pressure, pulse volume or duration, applied voltage, baffling, and dust type. The primary dependent variables will be pressure drop before and after cleaning and a visual subjective evaluation of the cleaning dynamics. Only limited outlet particulate emission measurements will be conducted to verify that collection efficiency is a minimum of 99.99%. Since the carrier gas will have a lower submicron particle concentration than real flue gas, extensive outlet particulate measurements will be deferred until the tests with real flue gas. The expected duration for each test condition will be approximately 1 hour. A total of approximately eight test conditions will be evaluated each day and a total of approximately 10 test days are planned. A suggested test matrix for Subtask 3.1 is shown in Table 2.

Following these test, the data will be reviewed by DOE, ALENTEC, W.L. Gore & Associates, and the EERC. If it is determined that fundamental flaws exist in the design and function of the AHPC and if no obvious modifications can be made to improve operations, the project may be terminated by the DOE Project Manager. Figure 6 illustrates the decision point.

3.1.3.2 Subtask 3.2 – 8-hour Verification Tests

For Subtask 3.2, the combustor will be fired on coal for AHPC testing with real flue gas. The main variables will be coal type, A/C ratio, and flue gas conditioning. The eventual commercial success of the AHPC will depend upon the A/C ratio, since that is the main factor determining the size and cost of a full-scale AHPC. The AHPC must also be shown to operate reliably for a wide range of coals. In some cases, such as with high-resistivity dusts, AHPC performance could benefit significantly from flue gas conditioning. The test matrix for

TABLE 2

Test Matrix for Subtask 3.1 – Cold-Flow Shakedown Testing

Test	Pulse Pressure	Pulse Duration	Baffling	Voltage	Dust Cohesive Strength	Dust Resistivity
1	High	Long	Min.	50	High	Low
2	Med.	Long	Min.	50	High	Low
3	Low	Long	Min.	50	High	Low
4	High	Med.	Min.	50	High	Low
5	Med.	Med.	Min.	50	High	Low
6	Low	Med.	Min.	50	High	Low
7	High	Short	Min.	50	High	Low
8	Med.	Short	Min.	50	High	Low
9	Low	Short	Min.	50	High	Low
10	High	Long	Max.	50	High	Low
11	Med.	Long	Max.	50	High	Low
12	Low	Long	Max.	50	High	Low
13	High	Med.	Max.	50	High	Low
14	Med.	Med.	Max.	50	High	Low
15	Low	Med.	Max.	50	High	Low
16	High	Short	Max.	50	High	Low
17	Med.	Short	Max.	50	High	Low
18	Low	Short	Max.	50	High	Low
19	Med.	Med.	Max.	0	High	Low
20	Med.	Med.	Min.	30	High	Low
21	Med.	Med.	Min.	0	High	Low
22	Med.	Med.	Min.	30	High	Low
23	Med.	Med.	Max.	50	Low	Low
24	Med.	Med.	Max.	50	Low	Low
25	High	High	Max.	50	Low	Low
26	High	Low	Max.	50	Low	Low
27	Low	High	Max.	50	Low	Low
28	Low	Low	Max.	50	Low	Low
29	Med.	Med.	Max.	50	Low	High
30	Med.	Med.	Max.	30	Low	High
30-50	Repeat select tests and/or change variable.					

Subtask 3.2, shown in Table 3, lists the ten 8-hour tests that are planned. The coals will most likely include an eastern bituminous and a western subbituminous with a higher electrical resistivity than would be ideal for optimum ESP performance. The flue gas conditioning agents to be used will be selected based on past results. SO_2 and NH_3 are known to enhance both ESP and fabric filter performance, but if new conditioning agents that are being developed and tested in other DOE-supported research appear more promising than SO_2 and NH_3 , they will be selected.

All tests will be conducted at an AHPC temperature of 149°C (300°F), since that is a typical air heater outlet temperature in full-scale coal-fired boilers. Each test will include inlet and outlet EPA Method 5 dust-loading measurements and continuous outlet measurements with the aerodynamic particle sizer (APS) and scanning mobility particle sizer/condensation particle counter (SMPS/CPC).

3.1.3.3 Subtask 3.3 – 100-hour Proof-of-Concept Tests

Assuming the 8-hr tests are successful, six 100-hr tests are planned to evaluate the longer-term operability of the AHPC over multiple cleaning cycles. The main variables will include coal type and A/C ratio, but one test each is planned with flue gas conditioning and with a mercury sorbent, as shown in Table 4. Extensive inlet and outlet particulate measurements will be completed to thoroughly document the performance of the AHPC as a function of time. Ultimate, proximate, and Btu analyses will be conducted on the coal for each run, and major elemental analysis will be completed on the fly ash. Two of the tests will each include four inlet and four outlet EPA (Proposed) Method 29 trace element measurements to evaluate the collection efficiency of arsenic, cadmium, chromium, lead, mercury, nickel, and selenium. One test will serve as a baseline and the second test will include the injection of a sorbent upstream of the AHPC for mercury control. Some forms of activated carbon appear promising for mercury control, but the exact sorbent will be selected based on results from the literature and other research at the EERC.

Figure 6. Project logic and decision points.

TABLE 3

Test Matrix for Subtask 3.2 - 8-hour Verification Test

Test	Coal	A/C	Flue Gas Conditioning
1	1	12	No
2	1	16	No
3	1	24	No
4	2	12	No
5	2	16	No
6	2	24	No
7	2	12	Yes
8	2	16 or 24	Yes
9	Unspecified		
10	Unspecified		

TABLE 4

Test Matrix for Subtask 3.3 - 100-hour Proof-of-Concept Test

Test	Coal	A/C	Flue Gas Conditioning	Mercury Sorbent
1	1	12	No	No
2	1	16	No	No
3	2	12	No	No
4	2	16	No	No
5	2	16	Yes	No
6	2	12	No	Yes

Trace element analysis for these seven elements will also be conducted on the coal for each of the tests in which Method 29 sampling is conducted. To help determine proper disposal of fly ash containing spent mercury sorbents, leaching characterization of the fly ash from the baseline and mercury sorbent tests will be completed.

Figure 7. Schematic of the PTC.

3.3 Project Milestones

See Figure 8 and Table 5 for planned milestones for each task.

Year:	1995				1996				1997			
Quarter:	1	2	3	4	1	2	3	4	1	2	3	4
Task 1												▲
Task 2												
Task 3												

Figure 8. Project milestones.

TABLE 5

Project Milestone Log

Task	Description	Completion Date
1	Project Management and Reporting	September 30, 1997
2	Modeling, Design, and Construction	April 30, 1996
3	Experimental Testing	
3.1	Cold-Flow Shakedown Testing	August 31, 1996
3.2	8-hour Verification Tests	December 31, 1996
3.3	100-hour Proof-of-Concept Tests	June 30, 1997

3.4 Cost

The total cost of Phase I of this project is \$769,042. The detailed budget for the project is included in Appendix A.

3.5 Financial Results

The project is jointly funded by the U.S. Department of Energy (DOE), W.L. Gore & Associates, Inc., and ALENTEC. DOE's cost share is \$599,048. W.L. Gore's cost share is \$150,000 and ALENTEC's cost share is committed \$19,994.

4.0 MANAGEMENT SYSTEMS AND CONTROL DESCRIPTION

4.1 General

The North Dakota State Board of Higher Education is constitutionally responsible for the management of the University of North Dakota (UND) and ten other institutions of higher education. The Board is the final authority in all matters affecting the University and exercises jurisdiction over its financial, educational, and other policies, as well as its relation to state and federal governments. Certain administrative responsibilities of the Board have been delegated to

the Chancellor for the Board of Higher Education. The Board entrusts the execution of all its plans and policies, together with the internal government and administration of the University, to the president, the faculty, and other such officers it may select. The Director of the Energy & Environmental Research Center (EERC), Dr. Gerald H. Groenewold, reports to the President of the University of North Dakota (UND).

4.2 Organization

The EERC is made up of four groups: research; contract coordination, facilities, infrastructure, and safety; customer relations, administrative services, and outreach programs; and financial services. Appendix B illustrates the current organizational structure of the EERC. Figure 4 illustrates the project organization.

4.3 Planning, Budgeting, and Accounting

The EERC Budget & Accounting Office provides budget, accounting, and reporting support to EERC principal investigators and prepares internal management reports. In the administration of some \$15,000,000 in contract costs and \$3,000,000 in support costs (FY93), a wide variety of tasks is performed by this office. The EERC Budget and Accounting Office also acts as a liaison between UND Budget and Grants Administration and the UND Controller's Office on project financial matters that require special attention.

Financial Data Processing provides programming support for the EERC Budget and Accounting Office, Grants and Contracts, purchasing, and Human Resources, using UND mainframe and microcomputers. The mainframe has access to WYLBUR, CMS, CICS, and SAS tape extracts for use in accounting, inventory, EERC payroll information, and personnel data. Paradox®, Lotus®, Q&A®, and Microsoft Access are used for specific databases and to import/export from the mainframe. The EERC Financial Data Processing Office acts as a liaison with the UND Computer Center.

The accounts of the University are maintained in accordance with the principles of fund accounting, where resources for various purposes are classified for accounting and reporting

purposes into funds in accordance with the activities or objectives specified. Separate accounts are maintained for each fund. The fund groups include current funds, loan funds, plant funds, endowment funds, and agency funds. Appendix C outlines procedures used in the Budget and Grants Administration Office and the Controller's procedures used in the Budget and Grants Administration Office and the Controller's Office. The UND Financial Report for the year ending June 30, 1994, is included in Appendix D.

Policies and procedures that govern purchasing and property management are included in Appendix E.

4.4 Analysis

All EERC analytical laboratories are required to undergo state certification. This involves a series of tests to ensure the accuracy and precision of the laboratory. These certifications are available upon request. In addition, all samples are continually tracked and logged by a given laboratory number. Appendix F includes the detailed description of the EERC Particulate Research Laboratory.

5.0 TECHNICAL SUPPORT SYSTEMS

EERC technical services include engineering services, pilot plant operations and instrument and machine shops, and safety and facility operations.

5.1 Systems Engineering

The EERC Engineering Group consists of a Design Engineering Department and Engineering Support Services Department. The Design Engineering Department provides a design service to researchers who require specialized equipment to perform research. Mechanical systems, structural steel, pressure vessels, and pressure piping systems are typically designed by this group. All design work is done in compliance with nationally recognized codes and standards, such as the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code Section VIII, Div. 1; ASME Piping Code B31.3; and the Uniform Building Code (UBC).

The Engineering Support Services Department provides design assistance and drafting and maintains the engineering document control system. All personnel in this department are competent CAD operators and are familiar with nationally recognized drafting standards.

5.2 Configuration Management

The Pilot Plant Operations Group, the Central Machine Shop, and the Instrument Shop provide support activities to most of the projects conducted at the EERC. The Pilot Plant Operations Group provides trained operators to operate and maintain the process equipment located at the EERC. This includes integrated facilities such as the hot-water drying, circulating fluidized-bed combustor, and mild gasification pilot plants. The Central Machine Shop maintains a full complement of lathes, mills, presses, metal cutters, and welding equipment to do much of the metal working and equipment fabrication, both bench and pilot scale, for research programs at the EERC. Welding procedures and welders are certified according to the ASME Boiler and Pressure Vessel Code, Section IX, in order to perform welding in compliance with ASME pressure vessel and piping codes. Welding procedures and welders are also certified to the ANSVAWS Structural Welding Code D1.1-90. The Instrument Shop maintains a variety of electrical, electronic, and pneumatic test instrumentation and support equipment. This shop also provides maintenance and repair services for equipment being used in the EERC research programs.

5.3 Quality Assurance

The EERC established and formalized a quality assurance program and quality control procedures in August 1988. The EERC Quality Assurance (QA) manual (Appendix G) defines the requirements and the organizational responsibilities for each major element of the EERC's QA program and references the supporting documents needed to provide a comprehensive program. Compliance with this manual and its supporting documents assures that the EERC adequately fulfills governmental and private clients' requirements relating to quality and compliance with DOE and other applicable regulations, codes, and protocols.

5.4 Environmental and Safety Management

Environmental issues are addressed by the designated project manager. However, the project manager is assisted in this area by the EERC Facilities and Safety Officers. Together, they address project-specific permitting issues relative to air and water emissions and solid waste disposal to ensure compliance with National Environmental Policy Act.

Safety procedures at the EERC conform with Occupational Safety and Health Administration guidelines, and all key personnel assigned to the project will be assisted by the EERC Safety Officers. The University's occupational safety and environmental health policy is presented in Appendix H.

6.0 ADMINISTRATIVE SUPPORT SYSTEM

6.1 Security

Security at the EERC, as well as the entire UND campus, is provided by the UND Police Department. The University Police Department is a bona fide police department. Services of the UND Police Department are described in Appendix I.

6.2 Health and Safety

In addition to the UND Safety Office, a safety officer is employed on a full-time basis at the EERC to see to the safety of the employees and that the projects are being performed within safety guidelines and in accordance with safety regulations. The UND Occupational Safety and Environmental Health Policy is shown in Appendix H.

6.3 Personnel

The EERC Human Resources Office provides a wide variety of services for more than 260 EERC employees and is the liaison between the EERC and the UND Human Resources Office. Human Resource services include numerous national and international recruitment activities to

attract qualified researchers to the EERC. UND is an Equal Opportunity Employer and has a policy of providing equal employment opportunities without discrimination to all applicants and employees regardless of race, religion, color, national origin, age, sex, physical or mental handicap, or status with regard to marriage or public assistance. The policy Manual for Staff Employees is included in Appendix J.

6.4 Legal

An Assistant Attorney General of the State of North Dakota acts as legal counsel for the State Board of Higher Education. The EERC, as a department of the University governed by the State Board of Higher Education, calls on the Assistant Attorney General for legal counsel when needed.

6.5 Procurement

The EERC Purchasing Office, which employs four full-time employees, works in conjunction with the UND purchasing department. It provides services in purchasing requests, acts as central shipping and receiving for supplies and equipments and maintains the EERC inventory system. The Policy and Procedure Manual is included as Appendix E.

6.6 Data Processing

The EERC Computer Systems group consists of three full-time and two part-time employees to ensure the integrity of EERC computer network as well as to provide technical support, programming, and hardware/software installation.

EERC Office Services incorporates a wide variety of interrelated functions, including information processing, communication and mailing systems, centralized correspondence and filing systems, administrative assistance services, conference services, technical editing, network administration services, and special project coordination.

EERC Graphic Services creates a wide range of visual aids through the use of photography and related specialized equipment. A variety of end products includes illustrations, audiovisual aids, display materials, publication design, and assistance in the production of special-purpose videos. Graphics Services also assists researchers with specialized projects and public relations activities.

6.7 Property Management

The UND Equipment Inventory Control Office provides a centralized equipment inventory management and reporting system to support University education, research, and administration, in accordance with federal, state, and institutional requirements. The UND EERC property management program has been established to support program needs at the EERC economically and efficiently, while working in conjunction with the UND inventory control office. Guidelines for property management at the EERC are included as Appendix E.

6.8 Subcontractor Controls

The University's grants and contracts office reviews all subcontracts, and an authorized representative signs off on all contracts and subcontracts. An audit clause is included in subcontracts when necessary (cost-reimbursable subcontracts).

6.9 Other Administrative Support Systems

The EERC Research Library is one of five branches of the Chester Fritz Library, the University's major library. The five branch libraries/collections contain about 517,000 bound volumes and over a million pieces of microfilm. The EERC library houses over 3100 volumes of books and 225 volumes of reference materials and receives over 100 journals and pertinent newsletters monthly.

Communications Services is responsible for providing public and news media information, conducting tours, and handling information requests. This service also includes planning,

developing, and directing communications activities, such as presentations, displays, publications, and audiovisual materials and providing technical information for nontechnical presentations.

7.0 REFERENCES

1. Leutwyler, K. "Pollution, Pollution,....," *Science* 1993, 269, 23-28.
2. Greiner, G.P.; Furlong, D.A.; VanOsdell, D.W.; Hovis, L.S. "Electrostatic Stimulation of Fabric Filtration," *Journal of the Air Pollution Control Association* 1981, 31 (10), 1125-1130.
3. Oglesby, S.; Nichols, G.B. *Electrostatic Precipitation*; Marcel Dekker, Inc., New York; 1978.
4. Miller, S.J.; Laudal, D.L.; Chang, R.L. "Flue Gas Conditioning for Improving Pulse-Jet Baghouse Performance," *In Proceedings of the 9th Particulate Control Symposium*, April 1992; EPRI TR-100471, Vol. 2, p 12-1.

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APPENDIX A

PROJECT BUDGET

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APPENDIX B

EERC ORGANIZATIONAL CHART

UND ENERGY & ENVIRONMENTAL RESEARCH CENTER

EERC ORGANIZ. CHART

UND ENERGY & ENVIRONMENTAL RESEARCH CENTER

LEAC 000053.Ppt

August 1995

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August 1995

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EEEC 000164-PM

Legend

* Dual Capacity
(PT) - Part-Time
(S) - Student
(T) - Temporary
(LOA) - Leave of Absence

August 1995

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EEEC 000786-0001

August 1995

WIND ENERGY & ENVIRONMENTAL RESEARCH CENTER

August 1995
+ **Deadline**

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Center*

APPENDIX C

UND FINANCIAL PROCEDURES

If you need information regarding:**Contact:**

Accounts Payable Checks	Ann	74131	or Jackie 74855
Accounts Receivable Charges or Credit Memos	Emmy	72966	
Airline Tickets	Ann	74131	
American Express	Bonnie	72966	
Blanket Purchase Order Payments	Judy	72773	
Budget Transfers	Jan	74565	
Canceled Checks	Celia	72772	
Computer Access is Locked	Bonnie	72966	
Confirmation Purchase Order Payments	Judy	72773	
Employee Travel Reimbursements	Bonnie	72966	
Food Purchase Approvals	Bonnie	72966	
Interdepartmental Billings	Jan	74565	
Investments	Lisa	74575	
Journal Entries	Allison	72968	or Lisa 74575
Monthly Printouts	Ann	74131	
NAID's	Jackie	74855	
Non-employee Travel Reimbursements	Barb	72967	
Out-of-State Travel Authorizations	Bonnie	72966	
Payment Status	Ann	74131	
Project Numbers/Reports	Celia	72772	
Purchase Order Payments (Receiving Reports)	Judy	72773	
Requests for Payments/SOS Payments	Barb	72967	
Stop Payments on an Accounts Payable Check	Celia	72772	

Accounting System Access

Individuals who would benefit from access to the Uniform Accounting System should consider requesting the following TRAN-ID'S: AP77, AP90, CR12, GL19, GL53, GL70, GL79, GL7B, ME20, NA90, PC12, RC80. Security authorization request forms are available in the Controller's Office. Consult with the Security Officer at 72966 for further details.

To sign on to the CICS system, access the CL/MENU as shown below:

WELCOME TO CL/MENU--USE PF7/PF8 TO PAGE BACKWARD AND FORWARD

* CLMO301 - INITIAL DISPLAY

Select ==>

A	UCICSA	AVAILABLE	CICS FOR SYSTEM A
B	UCICSB	AVAILABLE	CICS FOR SYSTEM B
T	UCICST	AVAILABLE	CICS FOR SYSTEM T
W	UWYL	AVAILABLE	WYLBUR
C	N12VCNA	AVAILABLE	NCMS1 (CMS) AT NDSU
F	USAFT	AVAILABLE	FILE TRANSFER FOR 3270

/B # - BROWSE SELECTED BULLETIN TITLES BELOW

1 - Juggler Helpful Hints	NEW 04/30/93
2 - MVS Job Classes at UND	Rev 12/06/91
3 - Hierarchical Storage Manager (HSM)	New 12/19/90
4 - Scheduled Hours/Operations by Appl	Rev 09/07/93
5 - ODIN on Administrative Terminals	Rev 11/02/90
6 - HELP Displays - Using CL-MENU	Rev 06/09/88
7 - Telephone Numbers/Problems/Info	Rev 11/02/90

Type B and press ENTER to access the Uniform Accounting System (UCICSB). A screen will appear with WELCOME TO HECN CICS AT HOST UND. Clear the screen and type CESN and press ENTER. The screen will appear as follows:

CICS/VS SIGNON-ENTER PERSONAL DETAILS

USERID:

PASSWORD:

IF A NEW PASSWORD IS REQUIRED, ENTER NEW PASSWORD:

PRESS PF3 OR PA1 TO TERMINATE SIGNON PROCESS AND REMAIN LOGGED ONTO CICS

Enter your UserID in the appropriate field.

TAB to the second line labeled "PASSWORD" and enter your eight character password. Then press ENTER. This password is referred to as the RACF password.

DO NOT type your password in the third line. After typing the first two lines and pressing Enter, the message "NEW PASSWORD IS REQUIRED" may appear. This means that your password has expired and a new one must be created. To create a new password, TAB to the third line and type a new eight character password and press ENTER. This new password must be one that has not been used previously. Your RACF password will expire every 90 days.

If your password has NOT expired, after entering your UserID and PASSWORD, the screen will appear with SIGN-ON IS COMPLETE. Type the TRAN-ID you wish to access and press ENTER. The screen will appear as follows:

PLEASE ENTER ADABAS PASSWORD:

Type your ADABAS PASSWORD and press ENTER. Remember that this is NOT your RACF Password. Your ADABAS PASSWORD will also expire every 90 days. If your ADABAS Password has expired, the screen appears as follows:

YOUR ADABAS PASSWORD HAS EXPIRED

ENTER OLD PASSWORD:

ENTER NEW PASSWORD:

Type the old ADABAS password in the appropriate field. Type a new ADABAS password in the appropriate field. This password must be eight characters and must not have been used previously. Press ENTER. The screen appears: ENTER ADABAS PASSWORD:

Type your new ADABAS password and press ENTER.

To logoff of CICS, clear the screen, type CESF LOGOFF, and press ENTER.

If your computer access is locked, contact Bonnie, Controller's Office at 72966. For additional information on TRAN-ID's and how to use them, refer to the Section titled ACCOUNTING SYSTEM ON-LINE INQUIRIES in the *Administrative Manual*.

Accounts Receivable

The accounts receivable system is for charges to customers for any goods sold or services rendered by the institution. The source documents are the accounts receivable charge and the accounts receivable credit memo. Forms can be obtained from the Business Office.

Any department may originate the charge or credit memo, a copy of which is distributed to the customer. The accounting copy (yellow-charge, white-credit memo) is forwarded to the Controller's Office for input into the system. The third copy should be retained by the originating department. Note that there is a minimum amount of \$10 for an accounts receivable charge to be processed.

While the source documents are pre-numbered for physical control, the system will assign an internal reference number which is used for all processing in the system. This reference number is prefixed to differentiate between the charge (C) and credit memo (M).

Each charge form is completed with the customer's full name and address, social security number and/or NAID, charge date, fund-dpt-TCC to be credited for the charge (appropriation funds may not be used), amount, a brief explanation of the charges, and name of originating department. Credit memos are used to decrease a customer's

account balance for a return, an adjustment, or to write off a bad debt. The credit memo is completed the same way as the charge form. All credit memos must have two signatures from the department. All credit memos submitted to write off accounts as bad debts must be approved by the Controller.

Completed forms are submitted to the Controller's Office with an Accounts Receivable Transmittal form. The transmittal form indicates whether charges or credits are being submitted and the total dollar amount of the batch. An adding machine tape of the batch must be attached to the form. After the Controller's Office has reconciled the batch the transmittal form is returned to the originating department. Any charges or credit memos sent to the Controller's Office without a transmittal form will be returned to the department. Transmittal forms are available in the Controller's Office.

Customers with outstanding accounts receivable balances are sent a monthly statement of their account. Statements show the balance forward and a detail of any charges, credit memos and receipts entered since the previous statement, and the current balance. The customer is to send the remittance and a tear-off identification stub in the return envelope that is provided.

Customers are to remit directly to the Business Office. Payments that are sent in error to the originating department must be brought to the Business Office and identified as payment on accounts receivable. Do **NOT** make a direct deposit with such a payment.

Alcoholic Beverages

No alcoholic beverages may be paid for from University funds.

Allowance for Doubtful Accounts

An 'allowance for doubtful accounts' will be established for each fund that has accounts receivable which have not been paid after 360 days. To establish the allowance, Bad Debt Expense (TCC 536) is charged and Allowance for Doubtful Accounts (TCC 068) is credited. The account receivable aging is reviewed at least quarterly to determine if the allowance is adequate and adjustments will be made as necessary. Currently, the allowance should be 50 percent of the balance of accounts between 361 and 720 days old and 100 percent of all accounts over 720 days old. When an account receivable has been determined to be uncollectible it will be written off against the allowance.

American Express Corporate Card

UND has an agreement with American Express to provide full time employees with an American Express Corporate Card at no charge. The card is issued in the name of the employee and the employee is solely and directly liable to American Express for all charges incurred, except authorized University airline travel. All airline tickets and Amtrak tickets charged to the Corporate Card will be direct billed to the University. **THEREFORE, NO PERSONAL AIRLINE TICKETS OR PERSONAL AMTRAK TICKETS CAN BE CHARGED TO THE CORPORATE CARD.** Any other expenses charged on the card such as lodging, meals, car rental, etc., will be billed to the employee.

Employees must have an American Express Corporate Card to charge airline tickets for authorized University travel to the University. If the employee does not have the Corporate Card, he/she will have to purchase the airline ticket and be reimbursed for the ticket on his/her Travel Expense Voucher.

An Out-of-State Travel Authorization must be submitted and approved prior to the purchase/release of an airline/Amtrak ticket for out-of-state travel. (Refer to the Out-of-State Travel Authorization Section for additional information.) To charge an airline ticket to the University, call a local travel agency and make reservations. Give the travel agency the employee's American Express Corporate Card number and the FUND-DEPARTMENT NUMBER and PROJECT NUMBER (if applicable) the ticket is to be paid from. The agency will deliver the ticket to the Controller's Office where it can be picked up. Airfare or other travel tickets, for out-of-state travel, will not be released if an approved Out-of-State Travel Authorization has not been received by the Controller's Office.

Arrangements can be made to charge non-employee airline tickets to the University by working with a local travel agency. Call the Controller's Office for further instructions or refer to the Section "NON-EMPLOYEE TRAVEL".

Auditing Criteria

All Requests for Payment and Receiving Reports are audited using the following criteria:

1. Customer's copy of the invoice must be submitted with the Request for Payment. If a copy of the invoice is to accompany the check, the department must provide the copy. A listing of vendors indicating the color of the customer copy of their invoice is available from the Controller's Office. If the original invoice is not available, the department should write on the invoice "only copy available".
2. Prepayments for subscriptions, dues, etc. must include the original invoice to accompany the check and a copy of the invoice for the Controller's Office records. All invoices/registration cards must be fully completed.
3. Prepayments to vendors who will not accept charges for supplies must have a Purchase Requisition and a Request for Payment. Attach two copies of price support documentation (i.e. letter from vendor or photocopy of catalog) and submit paperwork to Purchasing. Prepayments for subscriptions can be processed with a Request for Payment only to the Controller's Office. Receipts from the purchase must be returned to the Controller's Office within a week of the purchase.
4. Proper departmental signature(s) in ink. Documents sent to the Controller's Office for payment should be signed by an authorized individual in the applicable department(s). Authorized individuals should utilize their own signature, rather than signing another person's name to a document, or using a signature stamp and initialing. When an employee is being reimbursed for expenses incurred, someone other than the reimbursed employee must authorize payment for the department. All payments from Alumni funds must have a signature from the Alumni Office prior to being submitted to the Controller's Office.
5. Sufficient funds available in the fund to cover the expenditure.
6. Social security number and permanent home address for all payments to individuals as well as their full name, no initials or Mrs. John Doe.
7. Fund and department number, appropriate TCC and project number (if applicable).
8. The combined RFP/SOS form may be used for SOS payments. The goldenrod copy is the SOS form and is to be given to the vendor. Note the SOS reference number and the RFP reference number are the same. The RFP/SOS reference number should appear on the invoice.
9. Payments between departments within the University should be processed on an Interdepartmental Billing.
10. Reimbursement to an employee for travel expenses must be submitted on a Travel Expense Voucher.
11. Dates of service on payments for professional services, consulting fees, etc. Payments for services to nonresident aliens must be accompanied by IRS Form 8233 (see NonResident Aliens/Payment for Services).
12. Vendor name and address on the Request for Payment must be the same as on the invoice. For payments to organizations the full name of the organization must be given, not just the initials. A Federal ID# is required for all payments equal to or greater than \$600 where the TCC indicates that the payment is subject to 1099 reporting.
13. Use TCC 544, AWARDS, for a cash award to an individual. When purchasing awards such as trophies use TCC 547, PLAQUES & TROPHIES, and a Purchase Requisition or RFP/SOS must be used. All payments for awards must indicate what the award is for, to whom the award is being presented, the social security number and home address of the recipient, and the recipient's signature acknowledging receipt of the award if the award is other than a direct payment by University check to the individual, i.e., gift certificate or cash. Awards for employees must be processed through the Payroll Office.
14. If there is a mistake on an invoice from the vendor, the department must contact the vendor and either get a corrected invoice or an approval from the vendor to change the invoice. If the invoice is to be changed, there must be a notation on the invoice stating the name of the person at the company who approved the change and the date the change was approved. If an item has been returned or removed from the invoice, a credit memo from the vendor must accompany the invoice.
15. Compliance with all University policies pertaining to the expenditure of funds.

16. Payments to employees for services provided outside of their contract and across departmental/college lines must be processed through Payroll if an employer/employee relationship exists.
17. An approved Food Purchase Approval form may be required for requests from employees for reimbursement for meals for themselves and for University guests they have hosted. (See Staff Meals).
18. **Unallowable expenditures:** alcoholic beverages, food and beverages for departmental activities, coffee pots and cups, plants, flowers, gifts, pictures or picture frames, Christmas cards and decorations, personal care items, personal dues and memberships (this is not an all inclusive listing).

Awards and Prizes

The following information must be provided for all recipients of cash awards and cash equivalent awards (gift certificates), and recipients of merchandise prizes of \$10 or more: Name, address, social security number, and the recipient's signature acknowledging receipt. This information will be filed with the payment document and is necessary for compliance with Internal Revenue Service reporting requirements. Awards to employees are subject to withholding and social security and must be processed through the Payroll Office.

Blanket Purchase Orders

All blanket order payments are processed with a Request for Payment. The completed Request for Payment and the original invoice(s) are sent to the Controller's Office for processing. The blanket purchase order number must appear on the Request for Payment (lower left-hand corner labeled "Purchase Order No."). The account number(s) and TCC(s) charged on the Request for Payment must also be authorized on the blanket order. If additional account numbers or TCC's need to be authorized on a blanket order, a request to modify the order should be sent to Purchasing before the payment is submitted to the Controller's Office.

Bookstore Charges

Departments are issued Bookstore charge cards to enable them to purchase office supplies and minor equipment at the University Bookstore. The Bookstore will initiate an Interdepartmental Billing each month to direct bill departments for their purchases. Departments will not be allowed to charge clothing, gift items, jewelry, cards, personal care items, etc. at the Bookstore. Departments who will be purchasing computer software or minor equipment at the Bookstore should request an additional charge card with their fund-department and TCC 446 for software and TCC 608 for minor equipment < \$500. These cards would then be used ONLY for software purchases or minor equipment purchases. Equipment purchases > \$500 require a Purchase Requisition.

Budget Transfers

Budget transfers are used to transfer budget amounts, not cash, from one TCC to another TCC. The 900 series TCC's are BUDGET TCC's and should be used for the budget transfers. Budget transfer forms are available in the Controller's Office. The forms are prepared by the department, signed, and then forwarded to the Controller's Office for processing. Budget transfers cannot be made BETWEEN salaries and operating expenses and equipment in appropriated funds.

Budget transfer forms are used to:

- a. transfer budgeted funds from one object to another within the same fund.
- b. transfer budgeted funds from one fund to another fund.
- c. set up budgets for new funds or inadvertently unbudgeted funds after the formal budget process has been completed.
- d. correct budgets after the formal budget process has been completed.

All budget transfers should be made at the budgeted TCC level. To determine which budgeted 900 TCC level a particular expense TCC falls under, refer to the TCC Code listing in the *Administrative Manual*, page 168.

Do not process transfers of local funds on the same form as appropriated funds.

New funds or unbudgeted funds should be set up with a one sided (increase) transfer. Make sure that the income as well as the expense areas are set up. List "setting up budget" or "correcting existing budget" in the explanation area on the lower left corner of the form.

Appropriated Funds —

1. Transfers can be made within the salary areas. (TCC's 301-328)
Transfers in the salary area are to be made at the budgeted 300 TCC level. All faculty transfers (TCC's 301-310) that fall under the Vice President for Academic Affairs, must be authorized by that office before submission to the Controller's Office.
2. Transfers can be made within the operating areas. (TCC's 954-965)
Transfers in the operating area are to be made at the budgeted 900 TCC level.
3. Transfers can be made within the equipment areas. (966-976)
Transfers in the equipment area are to be made at the budgeted 900 TCC level.
4. Transfers can be made from one appropriated fund to another appropriated fund under the same guidelines as in 1, 2 and 3 above.

In Appropriated funds you cannot:

transfer from/to salary to/from operating or equipment
transfer from/to operating to/from salary or equipment
transfer from/to equipment to/from salary or operating
transfer from/to local funds to/from appropriated funds
transfer from/to grant funds to/from appropriated funds
transfer from/to agency funds to/from appropriated funds

Local Funds — Budget transfers can be made between any area; salaries, operating and equipment. Cash transfers (sometimes confused with budget transfers) must be requested on a memo to the Controller's Office or initiated by the department via Interdepartmental Billing form.

Grant Funds — (4000-5499) Budget transfers should be sent to Budget and Grants Administration office. Cash transfers (sometimes confused with budget transfers) must be requested on a memo to the Budget and Grants Administration Office.

Agency Funds — (Agency funds 9000) Budget transfers should be sent to the Controller's office. Cash transfers (sometimes confused with budget transfers) must be requested on a memo to the Controller's Office or initiated by the department via Interdepartmental Billing form.

Car Rental — Insurance

The University has set up an agreement with our insurance carrier (ND Insurance Reserve Fund) to provide the insurance required by car rental agencies, although only in limited locations. The coverage territory includes the United States, the territories and possessions of the United States, Puerto Rico and Canada.

If an employee accepts the insurance coverage offered by the rental car company for the covered territory, they will not be reimbursed for the insurance cost. When coverage is not provided by the University, the traveler should accept the car rental insurance required by the location. This will be reimbursed on a Travel Expense Voucher. Contact the Controller's Office for a clarification letter to be used when renting vehicles.

Corrections to the General Ledger

Corrections for an incorrect fund or TCC can be made to the general ledger on an Interdepartmental Billing form. Indicate the FUND-DEPT-TCC and PROJECT (if applicable) and the amount to be charged. Credit the FUND-DEPT-TCC and PROJECT (if applicable) for the amount that was charged in error. In the description area, record the reference number of the original transaction being corrected. For example, the Request for Payment, Purchase Order, or Interdepartmental Billing number of the original transaction being corrected must be included on the Interdepartmental Billing form initiating the correction.

Discounts

Payments should be processed on a timely basis to enable us to qualify for any vendor discounts. The discount date should be highlighted on the Request for Payment.

Dues and Memberships

Only institutional memberships can be paid from University funds. Dues and memberships in the name of individuals are not an allowable expenditure. Memberships should be in the name of the University and the appropriate department. Memberships should be reviewed periodically to evaluate if the benefit the institution is receiving justifies the cost.

Employer/Employee Relationship — Payment for Services

All payments for services where an employer/employee relationship exists will be processed on a Payroll Notice of Appointment/Appointment Revision form. This will include payments to current staff and faculty members providing services to other University departments where an employer/employee relationship exists. Payments to individuals for services such as guest lecturer, discussion leader, etc, including appropriate travel reimbursements, may be processed on a Request for Payment through the Controller's Office provided the individual is not currently employed by the University and has not been employed for at least 90 days, and is receiving a one-time total payment for these services. Contact the Controller's Office for questions pertaining to an employer-employee relationship.

To process the payroll appointment you will need:

1. Budget Position Number. Use TCC 309 for faculty consultants, TCC 315 for support staff consultants who are exempt from overtime, TCC 318 for those who are not. A current pool position number may be used. If a current pool position number is not available, submit a new position request form to the Budget and Grants Administration Office.
2. Personal Data and I-9 Forms. Current employees will have them on file in the Payroll Office.
3. Notice of Appointment/Appointment Revision Form. Any payments to current faculty must be approved by the office of the Vice President for Academic Affairs or the office of the Associate Dean for Academic Affairs for the Medical School. Any payments to current staff must be approved by Personnel Services. If the individual being appointed is eligible for overtime and is currently appointed 100%, submit an hourly reporting form with the appointment. These additional hours must be paid at the overtime rate. Budget and Grants Administration must approve all appointments on grant or contract funds (4000-5499) on TCC 309 or 315.

End-of-Month Open Order Payments

End-of-month open order payments must be in the Controller's Office by 8:00 AM three working days before the last working day of the month to ensure that the payments will be made in time to appear in the reports for the proper month.

End-of-Month Report Schedule

End-of-month reports (FUND SUMMARY, FUND TRANSACTION, REVENUE AND EXPENSE, DEPARTMENTAL SUMMARY OF EXPENDITURES) will be run the first weekend following the last working day of the month, except if the last working day of the month is a Friday, the reports will be run the following weekend.

Entertainment Expenses

Entertainment expenses associated with hosting receptions, employee recognition functions, and other institutional functions are allowed. Food and beverage expenses are also allowed when hosting an institutional event or meeting with participants from outside the hosting unit. These expenditures are not allowed on state appropriated funds or from funds restricted by external funding sources.

Equipment Purchases — Coding

All personal property with an extended useful life in excess of one year and an identity which is not altered materially through use is equipment. If equipment is purchased, the item is recorded at net, which is the invoice price, less all discounts, plus freight. Trade-in allowances are not deducted in determining the asset value to be recorded.

EQUIPMENT TCC'S:

- 603 Expendable Equipment <\$500
- 604 Expendable Equipment =>\$500 <\$750
- 609 Fixed Equipment <\$750
- 631 Capital Equipment =>\$750
- 636 Fixed Equipment =>\$750
- 718 Expendable Equipment/Plant Funds <\$500
- 719 Expendable Equipment/Plant Funds=>\$500 <\$750
- 720 Capital Equipment/Plant Funds =>\$750
- 725 Fixed Equipment/Plant Funds

EXPENDABLE EQUIPMENT includes all personal property with (1) an extended useful life in excess of one year, (2) an identity which is not altered materially through use, and (3) an acquisition value less than \$500. Any item which meets these three criteria is coded TCC 603.

CAPITAL EQUIPMENT includes all personal property with (1) an extended useful life in excess of one year, (2) an identity which is not altered materially through use, and (3) an acquisition value equal to or greater than \$500. Capital equipment may either be classified as **movable equipment** or **fixed equipment**. Fixed equipment are items that become identified as a part of the building instead of being capitalized separately.

Movable equipment with an acquisition cost equal to or greater than \$500 but less than \$750 is coded TCC 604; while an acquisition cost of \$750 or greater is coded TCC 631.

Fixed equipment with an acquisition cost less than \$750 is coded TCC 609; with an acquisition cost \$750 or greater paid for from current funds (0100-5999) is coded TCC 636, paid for from plant funds (7000's) is coded TCC 725.

Subsequent enhancements or add-ons: It is the University's policy to capitalize the initial purchase of equipment meeting the minimum dollar value and useful life criteria. Subsequent enhancements or add-ons to that equipment will be charged to expendable equipment unless the enhancement/add-on meets both the minimum dollar value and useful life criteria. For instance, the initial purchase of a computer with its component parts (i.e. keyboard, monitor, hard drive, etc.) should be capitalized as one unit if the total cost is equal to or greater than \$500. However, an add-on or enhancement (for example a second hard drive) should not be capitalized unless the cost is greater than \$500.00. An enhancement would be coded to TCC 603 as an expendable item unless the item met the dollar and useful life thresholds.

Personal Computer Purchases: When purchasing a personal computer the following items will be considered as one unit for capitalization and inventory purposes and will all be included under one tag number: system unit including disk drives, keyboard, monitor, reasonable amount of computer software (when the software is acquired at the time the PC is and where reasonable is defined as up to 50 percent of the hardware cost).

Printers will be tagged separately.

For subsequent enhancements or add-ons refer to subsequent enhancement or add-ons above.

Additional disk drives, surge protectors, mouse, external modems, emulation boards, memory expansion boards and chips, co-processors, and expansion chassis purchases will be reviewed to determine if it meets the minimum dollar value and useful life criteria test and coded accordingly. If the item meets the capitalization criteria, it will be added to the tag number of the item being enhanced. Any replacement keyboards, disk drives, etc. are repair items coded TCC 471.

Outlet strips, cables, plug 'n play kits, etc., acquired after the initial purchase of a PC will be considered supplies and coded TCC 461.

Federal Employer Identification Number

The University's federal employer identification number is 45-6002491.

Fiscal Year End

After the close of each fiscal year, July 1 - June 30, the Controller's Office is required to prepare financial statements which properly reflect the expenditures for the fiscal year then ended. For accurate financial statement presentation we must charge all materials and services received by June 30 to the fiscal year then ended. These financial statements are prepared in accordance with generally accepted accounting principles and are audited by an external auditor.

The University is on the accrual system for accounting which means that we record income in the fiscal year it is earned and expenditures in the fiscal year the materials or services are received. Departments must submit for payment all invoices for materials and services received on or before June 30 as soon as possible after June 30 and prior to the cut-off date that is set by the Controller's Office. If the materials or services are received in June but the invoice is dated in July, the department should clearly indicate that on the Requisition and/or the Request for Payment and those expenses will be expensed to June. If the invoice is dated in June but the materials or services were not received until July that also should be clearly stated on the Requisition and/or the Request for Payment and those charges will be expensed to July. The hourly payroll payments made in July that pertain to June hours are charged back to June.

The Controller's Office will send a memo to departments in April of each year with notice of the pertinent dates for the fiscal year end closing.

Fixed Assets

The investment in property, plant, and equipment comprises a substantial portion of the total assets of an institution. It is important to properly record and account for the acquisition, transfer, addition, and deletion of such items. All fixed asset accounts are controlling accounts and should be supported by appropriate inventory records.

FIXED ASSETS consist of real property which includes land, buildings, and improvements thereon, and personal property which includes such items as equipment, library books, museums and art collections, and livestock. Real property held as investments of endowment and similar funds is not included in the fixed asset category.

Land — All tracts of land acquired by purchase, gift, or bequest or otherwise acquired are included in the accounting records. When land is purchased, the valuation includes the amount paid for the land itself and all costs incidental to its acquisition, such as legal expenses, brokers fees, and expenses incurred in preparing the land for use, such as building demolition and grading. When acquired by gift or bequest, the land is recorded at fair market value at the date of acquisition. An independent professional appraisal is considered appropriate for establishing the valuation of land and buildings acquired by gift or bequest.

Buildings — All buildings and structures, including all permanently attached fixtures, machinery, and other apparatus that cannot be removed without cutting into walls, ceilings, or floors or otherwise damaging the building for the items so removed are included in this classification. When buildings are purchased or acquired by gift or bequest, the valuation method to be utilized is the same as that for land. Care should be taken to allocate all elements of related cost proportionately between the buildings and the land.

When buildings are constructed, all identifiable direct costs are included, such as payments for insurance and interest during the construction period. If the building is constructed by the institution's own labor forces, the cost should include properly allocated overhead or indirect costs as well.

Significant alterations, structural changes, extraordinary repairs and replacements or betterments that increase the usefulness, efficiency, or life of existing buildings should be added to the recorded valuation as noted later.

Improvements Other Than Buildings — All improvements to land other than buildings such as streets, roads, bridges, pavements, landscaping, and utility distribution systems are included. The valuation method is the same as for land and buildings.

Equipment — Equipment includes all personal property with an acquisition value in excess of \$500; an extended useful life in excess of a specific minimum period, usually one year; and an identity which is not altered materially through use.

If equipment is purchased, the item is recorded at net, which is the invoice price, less all discounts, plus freight. Trade-in allowances are not deducted in determining the asset value to be recorded.

If an item is fabricated, recording of the asset includes the total of all identifiable direct costs including materials, supplies, labor, installation, and indirect costs.

If acquired by gift, the items are recorded at a fair estimate of value at date of acquisition. Surplus property acquired from the federal government is shown at the value placed on the property by the federal government plus freight and installation cost unless the reported value is clearly unreasonable. If an item acquired by gift or as surplus property is of significant value, a professional independent appraisal will be utilized to establish the recording value.

Construction in Progress — This classification includes all projects for construction of buildings, other improvements, and equipment which are in progress at the end of the fiscal year. The valuation includes all accrued capitalizable costs.

Excess (Surplus) Property — When excess property is sold outside of the institution, the amount realized from the sale is credited to revenue from sale of excess property. Disposition of the proceeds from the sale depends on the source of funds for the original acquisition of the assets, as well as other legal or administrative policies. If no other restrictions exist, disposition is at the discretion of management.

Capitalization Policy — Normally, an expenditure that results in the acquisition of a defined "unit of property" is capitalized. The capitalization policy included herein is intended to apply to all acquisitions of a "unit of property" exclusive of library and museum or art collections.

Equipment costing less than \$500 and extraordinary repairs and replacements or betterments to land and buildings costing less than \$1,000 are not capitalized but are reported as expenditures of the current fiscal period whether such expenditures occur in the current fund or plant fund groups. Refer to the SUMMARY OF CAPITALIZATION POLICY table below.

Summary of Capitalization Policy

Category:	Current Fund (0900-5999)	TCC	Plant Fund (7000-7699)	TCC
EQUIPMENT:				
Expendable Equipment < \$500	YES	609	YES	718
Expendable Equipment => \$500-<\$750	YES	604	YES	719
Capital Equipment => \$750	YES	651	YES	720
FIXED EQUIPMENT:				
Fixed Equipment < \$750	YES	609	YES	725
Fixed Equipment => \$750	YES	656	YES	726
ORDINARY REPAIRS:	YES	471	YES	711
EXTRAORDINARY REPAIRS:				
Replacements < \$1,000	YES	471	YES	711
Replacements => \$1,000	NO*		YES	702
Improvements < \$1,000	YES	471	YES	702
Improvements => \$1,000	NO*		YES	702
ADDITIONS:	NO		YES	702
REMODELING:				
Remodeling < \$1,000	YES	471	YES	702
Remodeling => \$1,000	NO*		YES	702

*Potential exists on some of these funds to do an interfund transfer to a plant fund (0900-2999, 5500-5599).

If an item is doubtful as to current expense or capital expenditure, the item should be capitalized according to the minimum cost rules.

Repairs vs. Betterments — Expenditures to maintain a plant asset in its normal good state of repair are considered ordinary repairs and replacements. Such items are reported as expenditures and are not capitalized. Examples are replacement or repair of floor covering or roofs, reconditioning by replacing small parts, painting, or regular maintenance costs.

Extraordinary repairs and replacements are major repairs and replacements made, not to keep an asset in its normal state of repair, but to extend its useful life beyond that originally estimated.

Betterments are defined as the replacement of an existing asset or asset portion with an improved or superior asset or portion, usually at a cost materially in excess of the replaced item. Usually, a betterment results in a better, more efficient, or more productive asset.

Food and Beverages for Departmental Activity

Payment will not be approved for purchase of food or beverages, including coffee breaks, for departmental activity.

Food Purchase Approval Forms

Dining Services will not allow meals to be charged at their facilities without an approved Food Purchase Approval form. An approved Food Purchase Approval form is also required for activities held off campus when claiming other than the in-state per diem rate in which case the approved form and receipt are submitted with the Request for Payment for reimbursement. All payments for food and beverages from grant and contract funds require a Food Purchase Approval form.

The form is completed by the requesting department and submitted to the Controller's Office at least three days before the activity date. Information required includes activity date, location, fund to be charged, amount, type of function, meals involved and individuals for whom meals are requested. If prior approval is not received, reimbursement is limited to the in-state per diem rate. The Controller's Office reviews the form and returns the approved form to the requesting department.

The first two copies of the approved form are presented to Dining Services by the requesting department for on-campus meals. Dining Services will process an Interdepartmental Billing charging the fund indicated on the form.

The white copy of the form is submitted with the Request for Payment for off campus meals. The University host will pay for the meals and be reimbursed.

Alumni and agency funds (6700-6999; 8400-9999 accounts) are exempt from this procedure.

Refer to ENTERTAINMENT, RETREATS, STAFF MEALS, STAFF MEALS-RECRUITMENT for additional information concerning allowable costs and limits.

Foreign Vendors

When a department has an invoice to be paid to a foreign vendor who will not accept payment with our check in U.S. dollars it is necessary to purchase a bank draft in the required currency which results in an additional cost to the department. The department calls a local bank for the current exchange rate and the U.S. dollar equivalent necessary to cover the invoice. The department prepares a Request for Payment payable to the bank and includes the name and address of the foreign vendor, the payment amount, exchange rate and currency type, bank draft charge and the date the rate was obtained. If the purchase requires a Purchase Order, the department prepares a Purchase Requisition payable to the bank and includes the name and address of the foreign vendor. The department walks the Purchase Requisition to Purchasing for a PO number. The department will walk the Request for Payment and the invoice or price documentation with Purchase Order number, if necessary, to the Controller's Office. Because many exchange rates change daily it is necessary to get a check to the bank before 3:00 PM the day the rate is quoted. The Controller's Office will provide the department with a manual check. The Controller's Office has found that most foreign vendors will accept our checks.

Fund Accounting

The accounts of the University are maintained in accordance with the principles of fund accounting. This is the process by which resources for various purposes are classified for accounting and reporting purposes into funds that are in accordance with activities or objectives specified. Separate accounts are maintained for each fund. The fund groups are: current funds, loan funds, plant funds, endowment funds, and agency funds.

Current funds include all of those resources used or available for use in carrying out those operations directly related to the institution's educational objectives. It also includes those monies associated with the operation of the institution's auxiliary enterprises.

Loan funds are those resources that have been loaned or are available for loans to students, faculty, and staff.

The plant fund group includes all of the institution's physical plant assets as well as the monies that are set aside to be used to fund new construction, acquisitions, improvements, debt retirement, or renewal and replacement reserves.

Endowment funds include funds for which the principal is not expendable and that are intended to provide earnings for institutional use.

Agency funds include all funds the institution holds as custodian or fiscal agent for, such as student organizations, alumni funds, and other non-University organizations. These are funds the University does not own but rather provides accounting services to the organization or person to which the monies belong.

Interdepartmental Billings

The Interdepartmental Billing process is used for payments between University departments and provides for the transfer of funds between departments without issuing a check. Interdepartmental Billing forms are available in the Controller's Office. Departments that provide services and materials (originating department) send notices to the departments receiving the services and materials indicating the amount they will be direct billed via an Interdepartmental Billing for the services and/or materials they have received. It is the receiving department's responsibility to have sufficient funds in their account object to cover the charge.

The procedure utilized for Interdepartmental Billings that cannot be processed because of insufficient funds in the appropriated account being charged is:

1. The Controller's Office will call the department and notify them of the FUND-TCC and amount of the charge that cannot be processed because of lack of sufficient funds.
2. The department needs to provide another fund to be charged or to process a budget transfer to provide adequate funds to cover at least the current months charges and preferably for the next several months, so that this process will not have to be repeated.
3. Three days after the department has been notified the Interdepartmental Billing will be resubmitted.
4. If there are still not sufficient funds in the account, the Interdepartmental Billing will be submitted to the Accounts Payable Manager who will provide an alternate account number to be charged. The alternate account number will be a current unrestricted fund of the receiving department.

Interdepartmental Billings will be processed by the Controller's Office as they are received throughout the month. Billings received in the Controller's Office by the 20th of the month will be reflected in that month's reports. If a correction is needed for an Interdepartmental Billing that has already posted to the general ledger, refer to "CORRECTIONS TO THE GENERAL LEDGER" Section.

Internal Revenue 1099 Reporting

Payments made with the following TCC's are subject to 1099 reporting:

441 Equipment Rental	462 Office Equipment Rental	506 Conference Speakers
442 Software Rental	474 Repaire-Labor	508 Fees
444 Data Processing Service	476 Capitalized Repaire-Labor	509 Contract Services
445 Microfiche & Microfilm Service	501 Lecture	529 Subcontracts
451 Land Rental	502 Consultant	537 Misc Services
452 Building Rental	508 Legal	544 Awards
458 Equipment Rental	504 Audit	709 Plant Contracts-Labor
454 Aircraft Leases	505 Athletic Officials	717 Non-Capitalized Labor

The payee's social security number or employer identification number is required.

Lease Purchase Agreements

When the University enters into a lease purchase agreement for the acquisition of equipment, the equipment will be capitalized at its present value at the inception of the lease. The lease liability will be recorded in the net investment in plant fund.

Manual Checks

All disbursements will be made through the computerized accounting and check writing system. There will be no manual checks issued except in extreme emergencies where severe hardship or damages will result from a delay in processing the payment through normal channels.

The issuance of manual checks has a negative impact on internal control and requires additional accounting and clerical procedures. Normal delays in processing caused by data entry complications do not constitute an emergency, especially where a department should have commenced with the payment process at an earlier date.

All requests for manual checks must be signed by the department head with an explanation of the emergency. All requests for manual checks must be approved by the Accounts Payable Manager.

Moving Expenses

Upon written approval of the President, moving expenses may be reimbursed when staff are initially hired from outside the University system, and when permanent staff employed for one year are transferred to a new work location within the system at the direction of the employer.

Personal travel for the employee and immediate family while in transit and while in temporary living quarters (both not to exceed 10 days total) may be reimbursed at the actual per diem rates and mileage rates applicable under the employee travel reimbursement policies.

Personal travel may also be reimbursed for one round trip to the new work location for the employee and spouse for up to three days to arrange for living accommodations.

Transportation expenses for personal items and household goods may be reimbursed at the actual expenses incurred.

The total reimbursement for transporting personal items, household goods, and personal travel shall be limited to the invoice costs plus the current per diem and mileage limits, or one half month's beginning gross salary, whichever is less. In addition, the total reimbursement limit for permanent employees transferred within the system is limited to \$5,000 (NDCC Section 44-08-04.3).

Moving expense reimbursements for nondeductible expenses will be reported on the employee's W-2 for the year the reimbursement is made. IRS regulations require the University to withhold income tax, social security tax and Medicare tax from reimbursements and allowances paid to you for nondeductible moving expenses. Nondeductible moving expenses are:

1. meals while moving from your old residence to your new residence
 2. travel expenses, meals, and lodging for pre-move househunting trips
 3. meals and lodging while occupying temporary quarters in the area of your new job
- Reference IRS publication 521-Moving Expenses for further details.

New Accounts

Requests for new accounts are submitted in writing to the Controller stating the following:

1. desired account title
2. source of funds
3. controlling department
4. a brief explanation of what the funds will be used for and how long the account will be utilized.
5. a budget for the current year.

New accounts for sponsored activities should be requested through Budget and Grants Administration. Clarification can be obtained by calling the Controller's Office or Budget and Grants Administration.

Non-Employee Travel

Travel expenditures for non-university employees, including dependents, shall NOT be charged directly to the University. The department paying such expenses may, when applicable, submit a Request for Payment, with attached original receipts, requesting reimbursement to the individual following current University travel policies. Lodging will be reimbursed at the actual amount. Meals are reimbursed at the out-of-state GSA rate for North Dakota (currently at \$26.00). Expenses for spouses and other dependents will not be paid unless approved by the President. Current University travel regulations are used for all grant funds.

Airline tickets may be prepaid for non-employees. The department will make travel arrangements with a local travel agency and contact the Controller's Office for authorization to charge the ticket. The department will complete a Non-Employee Ticket Authorization form and submit it to the Controller's Office indicating the following:

1. individual's name
2. where they are coming from
3. dates and purpose of the trip
4. fund to be charged
5. name of travel agency
6. authorized departmental signature

If grant funds are involved, the form must be signed by Budget and Grants Administration Office. Tickets will be delivered to the Controller's Office and may be picked up by the department. Tickets will not be released prior to the Controller's Office receiving a completed Non-Employee Ticket Authorization form.

Nonresident Aliens -- Payment for Services

Residents of certain foreign countries may be entitled to reduced rates of, or exemption from, tax under an applicable tax treaty between the country of which they are residents and the United States. The person entitled to receive salaries, wages, or any other compensation for personal services performed within the United States must provide a statement to the University to claim any exemption from withholding.

To qualify for an exemption from withholding because of a tax treaty, an individual who performs independent personal services (as distinguished from an employee) must submit Form 8233, Exemption from Withholding on Compensation for Independent Personal Services of a Nonresident Alien Individual. Form 8233 must be filed for each tax year of the alien individual. All information required on the form must be provided. The exemption from withholding is effective for payments made at least 10 days after a copy of the accepted Form 8233 is forwarded to the Internal Revenue Service. Forms are available in the Controller's Office.

Prepayments

Prepayments should be avoided if possible. However, if this type of transaction is the only alternative it may be handled in the following manner. (1). Prepare a Purchase Requisition and a Request for Payment. (2). Attach two copies of price support documentation (i.e. letter from vendor or photocopy of catalog) and submit paperwork to Purchasing. Prepayments for subscriptions can be processed with a Request for Payment only to the Controller's Office.

Recruitment

Stipends or consultant fees may be issued to potential candidates for positions when such persons give on-campus lectures, colloquies, seminars, demonstrations or formal consultations in a manner not significantly different from that of visitors who are not candidates for positions. Such stipends or consultant fees may be authorized from a lecturers' budget or from a consultant budget.

When approved by the appropriate Vice President or their designate, the prospective candidate's travel expense may be authorized, not to exceed the receipted amount for transportation, room and board.

For senior administrative and faculty positions, upon authorization of the President, travel expenses for the spouse may be authorized for a prospective candidate.

All payments to individuals require the individual's social security number.

Refunds

Refunds from vendors will be deposited into the same FUND-DEPARTMENT-TCC that the payment was charged to. Deposits cannot be made directly to an appropriated fund. Refunds of appropriated expenditures should be brought to the Controller's Office, along with the reference number indicating the initial charge, and the refund will be processed to credit the appropriated account.

Registration Fees

Conference and seminar registration fees in excess of \$25.00 may be prepaid. Registration fees of \$25.00 or less will be paid by the employee and reimbursed on a Travel Expense Voucher. Registration fees will be coded TCC 899.

When meals are included in the registration fee, the employee should not claim reimbursement for any of the meals included in the fee.

Retreats

If the President or appropriate Vice President considers it desirable to have a staff retreat off campus where staff members may consider problems, new programs, etc., such costs are acceptable. Such retreats will be limited to one per year for any one organized unit. **ADVANCE APPROVAL FOR SUCH RETREATS MUST BE OBTAINED FROM THE PRESIDENT.** Reimbursement for meals will be at in-state per diem rates unless authorization is received from the President to exceed those rates.

Scholarships & Fellowship Accounts

All Requests for Payment for scholarships and fellowship accounts (TCC 651-671) to students must have a signature from the Student Financial Aid Office before payment will be processed.

SOS — Speed Order System

The SOS-Speed Order System has been developed to meet the small day to day needs of those departments that are large users of a variety of different items. The TCC listing indicates whether the purchase can be bought on the combined RFP/SOS form. The RFP/SOS forms are available in the Controller's Office.

SOS Orders are only valid for purchases up to \$500. SOS Orders are not valid for capital asset acquisitions (inventory items). All fund numbers can be used on SOS Orders.

The goldenrod copy of the RFP/SOS form is the SOS form and is to be given to the vendor. Note that the SOS reference number and the RFP reference number are the same. The RFP/SOS reference number is to appear on the vendor's invoice. All Request for Payments require a signature on the "Department Head Signature" line, certifying that goods have been received and authorizing payment for such goods. All payments made from Alumni funds must have a signature from the Alumni Office prior to being submitted to the Controller's Office.

The TCC's that can be processed on an SOS Purchase are:

443 Data Processing Supp	484 Building Supplies	493 Sanitation
446 Computer Software	486 Shop Supplies	511 Book Binding
448 Software Licenses	488 Uniforms, etc	512 Books
461 Office Supplies	487 Seed, Feed, Fertilizer	513 Publications
471 Repairs	488 Motor Fuel & Lube	514 Periodicals
474 Repairs-Labor	489 Landscape Supplies	516 Reference
481 Supplies	490 Food Service Supp	516 Instruction
483 Medical Supplies	491 Dishes & Utensils	517 Audio-Visual
603 Expand Equip	492 Athletics Supplies	518 Film Rental
	801 Resale Merchandise	519 Film Purchase
	836 Formula	547 Plaques/Trophies

The white copy of the RFP/SOS form, along with the original invoice, is forwarded to the Controller's Office to initiate payment to the vendor.

Staff Meals

Staff members must pay for their own meals in the community in which they are employed.

Exceptions to this policy are provided for functions attended at the request of and on the behalf of the institution and entertainment expenses associated with hosting receptions, employee recognition functions, and other institutional functions.

Functions attended at the request of and on behalf of the institution, including recruiting of staff and faculty, and including staff retreats limited to one retreat per year for any one unit. Activities are subject to the following:

1. The primary purpose must be business related.
2. The employee must have either been required to attend or attendance was approved by his or her supervisor or employer.
3. Reimbursement rates shall be at in-state per diem rates unless prior approval is obtained from the Controller's Office (Food Purchase Approval Form) for reimbursement of the actual costs not to exceed out-of-state per diem rates.
4. Prior written approval must be obtained from the President for all retreats with reimbursement at in-state per diem rates unless authorization is received from the President to exceed these rates.

Entertainment expenses associated with hosting receptions, employee recognition functions, and other institutional functions are allowed. Food and beverage expenses are also allowed when hosting an institutional event or meeting with participants from outside the hosting unit. These expenditures are not allowed on state appropriated funds nor from funds restricted by external funding sources.

Alcoholic beverages are not to be paid for from institutional funds regardless of the source of funds.

Staff Meals — Entertaining Guests

Meal expenses are allowed when hosting an institutional event or meeting with participants from outside the hosting unit. These expenditures are not allowed on state appropriated funds nor from funds restricted by external funding sources. Reimbursement rates shall be at in-state per diem rates unless prior approval is obtained from the Controller's Office (Food Purchase Approval Form) for reimbursement of the actual costs not to exceed out-of-state per diem rate.

Staff Meals — Recruitment

Staff members may be reimbursed for meal expenses incurred in the city where they are employed while recruiting staff and faculty. Reimbursement rates shall be at in-state per diem rates unless prior approval is obtained from the Controller's Office (Food Purchase Approval Form) for reimbursement of actual costs not to exceed out-of-state per diem rates. Costs covered under this policy are not allowable on government sponsored projects unless specifically provided for in the grant budget.

Stamps

Departments submitting Request for Payments to purchase stamps must include justification as to why Campus Postal Services does not meet their needs.

Tax Exempt Status

The University is exempt from sales taxes applicable to purchases, rentals and leases of tangible personal property used exclusively in the performance of functions by the University. The University's tax exempt certificate number is E-2001. A copy of the Tax Exempt certificate is available in the Controller's Office or the Purchasing Office.

TCC Coding Changes

The Controller's Office will notify departments when a TCC on a transaction in an appropriated fund is changed to a TCC in a different budget category; i.e., from operating to equipment.

Travel Policies

Out-of-State Travel Authorization — In accordance with NDCC Chapter 15-10-25.1, no expenses for out-of-state travel shall be allowed unless authority for such travel has been granted in writing.

The Out-of-State Travel Authorization must be submitted to the Controller's Office for approval prior to the departure and/or prior to the purchase or release of airline or other travel tickets. Airline or other travel tickets will not be released if an approved Out-of-State Travel Authorization has not been received by the Controller's Office.

An Out-of-State Travel Authorization is not required where travel does not proceed beyond a geographic point 160 miles from the state border, provided that in-state reimbursement rates are used (for meals, lodging, and mileage).

The Out-of-State Travel Authorization form is available as a three-part form or on computer disk, using Word Perfect and a laser printer. The forms are available in the Controller's Office. A computerized form may be obtained by bringing a disk to the Controller's Office.

When using the three-part form, complete the form as indicated in the sections below. Submit the white and yellow copies to the Controller's Office. The department retains the pink copy. An approved copy will be returned to the department.

When using the form on disk, print one copy of the completed form. Obtain original signatures on the form. Make two photocopies of the completed form. Submit two copies, one with the original signatures, to the Controller's Office. The department retains one photocopy. An approved copy will be returned to the department.

A. Completing the Required Information

The following information is required:

1. Name
2. Department
3. P.O. Box Number
4. Social Security Number
5. NAID Number

6. Destination
7. Departure/Return Dates
8. Travel Agency (if applicable)
9. Name of Meeting/Purpose of Trip
 - a. Be specific; do not use acronyms
10. Funding
 - a. FUND-DEPT-PROJECT-AMOUNT
 - b. All Office of Instructional Development (OID) funding requests must be authorized by OID.
 - c. Alumni funding must be authorized by the Alumni Office.
11. Departmental Approval
12. Additional Approval (if required)
 - a. Deen approval is required for academic units.
 - b. Vice President approval is required for intercontinental travel.
13. President Approval
 - a. This approval is obtained when the form is submitted to the Controller's Office. (An approved copy will be returned to the department.)

B. Completing the Optional Section

The department head, at his/her discretion, may require that the **OPTIONAL SECTION** be completed. It is the department head's responsibility to review this section, if completed. The Controller's Office will not review the **OPTIONAL SECTION**. The only sections reviewed by the Controller's Office prior to approving the Out-of-State Travel Authorization are the upper half of the form (required information) and the **AMENDMENT SECTION**.

1. Estimated Costs

This portion is used to ensure that all itemized travel costs to be incurred have been included. Estimated costs may include:

a. Transportation	e. Taxi
b. Lodging	f. Car Rental
c. Meals	g. Other: Parking/Phone/Misc
d. Registration	

2. Cost Savings Worksheet

Only reasonable travel time to and from the destination will be allowed, generally one day each way. If early departure and/or late return are contemplated, the department head may, at his/her discretion, require the employee to demonstrate that the early departure or late return results in savings or no additional costs after the additional costs associated with the extra per diem have been taken into account. The cost comparisons may be presented in this portion of the **OPTIONAL SECTION**.

3. Personal Days

An employee may not be reimbursed for personal days, even though they may not be identified in this section. If personal travel is included, the department head may request that the dates be indicated in this portion of the **OPTIONAL SECTION**.

4. Method of Travel

This portion is used to indicate the method of travel. Check one of the following:

a. Commercial Plane	c. Charter Plane	e. Personal Car	g. Train
b. UND Plane	d. State Car	f. Bus	h. Other

C. Completing the Amendment Section

If travel plans are changed after the Out-of-State Travel Authorization has been processed, an Amended Out-of-State Travel Authorization must be submitted prior to departure and/or prior to the purchase/release of airline or other travel tickets. Out-of-State Travel Authorizations will need to be amended for the following changes:

1. Total Amount Authorized
2. Departure/Return Dates
3. Fund(s) to be Charged

To process an amended Out-of-State Travel Authorization, the department makes a photocopy of the previously approved Out-of-State Travel Authorization (using the approved copy). The AMENDMENT SECTION is completed by indicating the type of change and obtaining original signatures. The photocopy with the original signatures is forwarded to the Controller's Office. The department may want to retain a photocopy of the Amended Out-of-State Travel Authorization for its file (a copy of the Amended Out-of-State Travel Authorization will not be returned to the department). The amended Out-of-State Travel Authorization may be submitted with the Travel Expense Voucher. (See Footnote #4 on the Out-of-State Travel Authorization).

Employee Travel Reimbursement —

Time and Method for Filing — Travel Expense Vouchers, including the required original receipts, should be submitted to the Controller's Office within 10 working days after the end of a month in which an employee incurs reimbursable expenses. The Controller's Office will notify departments of the filing deadline for Travel Expense Vouchers for the month of June to ensure that the payment is recorded in the appropriate fiscal year.

When a trip starts in one month and ends in another, reimbursement for each month's expenses must be requested separately. The original lodging receipt should be attached to the voucher for the month travel commenced and a copy of the lodging receipt should be attached to the voucher for the month the travel was completed.

All receipts submitted with a Travel Expense Voucher must be original receipts. When an original receipt is lost, a copy of the original receipt or a notarized statement must be obtained to replace the lost receipt. Credit card receipts are not acceptable.

In-State Travel —

Meal Reimbursement - In-State — NDCC Chapter 44-08-04 provides for reimbursement for employee expenses for meals while an employee is away from his/her normal working and living residence for four hours or overnight.

The maximum expense allowance for each quarter of any twenty-four hour period is as follows:

		In-State
First quarter	6 a.m. - Noon:	\$8.50
Second quarter	Noon - 6 p.m.:	\$5.00
Third quarter	6 p.m. - Midnight:	\$8.50

Receipts are not required for meal reimbursement. NDCC Chapter 44-08-04 provides that employees shall not be reimbursed for the first quarter if travel began after 7:00 AM.

Taxable Meal Reimbursements — As per Internal Revenue Code regulations concerning employee business expenses, the following will apply for meal expenses:

Meal reimbursements, during travel that does not require sleep or rest (non-overnight travel), are included in taxable gross income and subject to withholding and employment taxes and must be reported on Form W-2.

Any in-state meal reimbursements, which are regarded as non-overnight travel, will be treated as gross wages to the employee for tax purposes. Also, non-overnight meal expenses are not deductible for individual income tax purposes.

Travel Expense Vouchers must separate meal reimbursements into one or more of the following categories:

TCC Description —

- 888 In-State Meals - Taxable non-overnight stay
- 890 In-State Meals - Nontaxable

Any in-state meal reimbursements for non-overnight travel reimbursements are included in TCC 888. Any in-state meal reimbursements for overnight travel are included in TCC 890.

Payroll Taxes — The amounts included on the Travel Expense Voucher as taxable income will be paid with the regular travel reimbursement check. Following that reimbursement, the taxable amounts will be transferred to the next payroll period to be included in the employee's gross wages for that pay period.

The taxable amounts will then be used in the computation of the payroll where the proper payroll deductions will be calculated for federal and state income tax and social security tax. Thus, the applicable taxes will be deducted from the employee's first paycheck after the travel reimbursement. Generally, travel reimbursements received in the week prior to payday will be carried over to the next payroll. Also, it is possible that travel reimbursements for a nine month employee may be carried over to the September payroll period for the deduction of taxes. This will result in higher payroll tax deductions after certain travel reimbursements. Employees are cautioned to watch for irregular paycheck deduction amounts and irregular reduced net pay amounts.

The employee's W-2 will reflect the taxable meal reimbursements, which are included in taxable wages; and the taxes withheld on the meal reimbursements, which are included in the taxes withheld. In addition, the nontaxable reimbursements are reported in a separate box on the W-2.

1. Employer Matching of Taxes

Since the taxable meal reimbursements are subject to social security and employment taxes, the University is required to pay the usual employer matching on the taxable "wages". The amounts required to be paid as matching will be charged to the fund(s) used on the travel reimbursement voucher for payment of the meals. If an appropriation fund is used for the meals, the regular fringe benefit matching accounts will be used.

Lodging - In-State — Chapter 44-08-04, NDCC, provides for reimbursement of employee lodging expenses while an employee is away from his/her normal working and living residence for four hours or overnight.

An original receipt is required for lodging reimbursement. Only receipts from bona fide lodging establishments will be accepted for reimbursement. The receipt must be the official receipt from the lodging establishment and not a charge slip from a credit card system. If a lodging receipt is lost, contact the lodging establishment for a duplicate copy.

In-state lodging requirements are as follows:

- a. The maximum expense allowance for lodging for a twenty-four period is \$35.
- b. **Lodging charges when accompanied by an individual not eligible for reimbursement:** When accompanied on a University authorized trip by a spouse or traveling companion, the employee must have the lodging establishment clearly certify the room rate for a single person and only that amount may be claimed, not to exceed \$35.
- c. **Lodging charges when two employees shared lodging:** If two employees are sharing lodging accommodations, the actual cost of the room must be split evenly. The original receipt is submitted with the Travel Expense Voucher for the employee in whose name the room was registered. Both parties should indicate the name of the individual they shared the room with on their respective Travel Expense Voucher. A copy of the lodging receipt is attached to the other employee's voucher.
- d. **Lodging charges are only reimbursed to an individual/employee:** Only individuals/employees may be reimbursed for lodging expenses; a lodging facility may not be paid directly by the University.

Personal Vehicle Mileage - In-State — Mileage allowances are assumed to be total operating costs for vehicles and no additional amounts will be paid for such items as traffic tickets, toll fees, or any other normal recurring automobile expenses. Parking fees may be claimed only with a receipt for parking at hotels/motels (when the fourth quarter is claimed) and at airports. Parking fees for state vehicles will be permitted with a receipt.

If a personal vehicle is used in lieu of air for the employee's convenience, meals and motel expenses will be allowed for a maximum of one day each way. Reimbursement may be claimed for mileage at the rate of \$0.20 for each mile actually and necessarily traveled in the performance of official duty when such travel is by motor vehicle, and \$0.27 for each mile if the travel is by truck, the use of which is required by the department.

Air Transportation - In-State —

Commercial Air Transportation — Employees may be reimbursed for the actual airfares paid for travel on official University business. The last ticket coupon (passenger receipt) must be attached to the Travel Expense Voucher (itinerary alone is not acceptable).

Travelers are encouraged to take advantage of special and Super-Saver airline rates. Department heads, at his/her discretion may authorize employees to depart early or return late from their destination to take advantage of these special rates. However, the early departure or late return must result in savings or no additional cost after the additional costs associated with the extra per diem have been taken into account.

Prepaid Airfare: (Purchased with American Express Corporate Card) — University employees may charge airline tickets through a local travel agency if they have an American Express Corporate Card. If an employee does not receive an American Express Corporate Card and is traveling on official University business, he/she will have to purchase the airline ticket and be reimbursed on a Travel Expense Voucher.

AIRLINE TICKETS FOR PERSONAL TRAVEL MAY NOT BE CHARGED ON THE AMERICAN EXPRESS CORPORATE CARD.

To obtain an American Express Corporate Card, call the Vice President for Finance's office for an application form.

The employee may contact a local travel agency (not the airline) for reservations and tickets. The travel agency must be given the university FUND and DEPARTMENT NUMBER the ticket is to be paid from and the employee's American Express Corporate Card number.

The travel agency will deliver airline tickets to the Controller's Office, Room 100 Twamley Hall, where they can be picked up.

The last ticket coupon (passenger receipt) must also be attached to the Travel Expense Voucher for tickets purchased with the American Express Corporate Card even though reimbursement is not being claimed on the Travel Expense Voucher (itinerary alone is not acceptable).

Miscellaneous Expenses — Any claims under the "Miscellaneous" column on the Travel Expense Voucher require a detailed explanation and an original receipt must be attached if the item is greater than \$2. Original receipts are also required for taxi fares in excess of \$10.

Examples of non-reimbursable expenses are alcoholic beverages and entertainment, late check-out and room guarantee charges, parking tickets or other traffic tickets, and laundry.

Parking Fees — Parking fees may be claimed only with a receipt for parking at hotels/motels (when the fourth quarter is claimed) and at airports. Parking fees for state vehicles will be permitted with a receipt.

Telephone Expenses — Employees may be reimbursed for telephone calls to their residence, while in travel status, subject to the following provisions and limitations:

1. Reimbursement will be limited to an equivalent of one call per three days of travel status (72 hours).
2. The reimbursable amount shall be limited to \$3 per call.
3. In order to claim this expense, the charge must appear on the receipt submitted for lodging, or on a separate receipt.

Registration Fees — Registration fees to bona fide conferences and seminars which are in excess of \$25 may be paid in advance by submitting a Request for Payment with the original, completed registration form. Such fees may not include lodging. Registration fees of \$25 and less should be paid by the employee who will attend the meeting, and will be reimbursed on a Travel Expense Voucher (original receipt required).

If meals are included in such a fee, that information must be reflected as supporting data on the Travel Expense Voucher and must be considered a credit against the related meal allowance for the appropriate travel quarter.

Car Rental — The University has an agreement with an insurance carrier (ND Insurance Reserve Fund) to provide the insurance required by car rental agencies, although only in limited locations. The coverage territory includes the United States, the territories and possessions of the United States, Puerto Rico and Canada.

If an employee accepts the insurance coverage offered by the rental car company for the covered territory, they will not be reimbursed for the insurance cost. When coverage is not provided by the University, the traveler should accept the car rental insurance required by the location. This will be reimbursed on the Travel Expense Voucher.

The University will reimburse an employee for a car rental if the employee used an aircraft to get to his/her destination, and if the use of the vehicle is sufficient to justify that mode of travel instead of a taxi. Car rental from Grand Forks is not allowed. An original receipt is required; credit card receipts are not accepted. Payments will be reimbursed to the individual only; charges may not be made to the University.

The University has agreements with National, Avis and Hertz car rental agencies. Vehicles can be rented at corporate rates for both personal and business use. To take advantage of the corporate rate program, indicate to the car rental agency the University of North Dakota Discount Program Number below:

Avis: #A008100
Hertz: #80401
National: #5161586

Car rental stickers are distributed from the Controller's Office. Upon picking up the vehicle, you may be required to present the car rental sticker and your staff ID card.

Out-of-State Travel —

Meal Reimbursement - Out-of-State — Chapter 44-08-04, NDCC, provides for reimbursement of employee expenses for meals and lodging while an employee is away from his/her normal working and living residence for four hours or overnight.

The maximum expense allowance for Out-of-State travel for each quarter of any twenty-four-hour period is established by the United States General Services Administration (GSA). Included is a listing of cities by state and the maximum amount allowed per day for meals. The rate for any city not listed is \$26 per day. The breakdown by quarter is as follows, based on the GSA rate:

		\$26/day	\$30/day	\$34/day	\$38/day
First quarter,	6 a.m. - Noon:	\$ 5.20	\$ 6.00	\$ 6.80	\$ 7.60
Second quarter,	Noon - 6 p.m.:	\$ 7.80	\$ 9.00	\$10.20	\$11.40
Third quarter,	6 p.m. - Midnight:	\$13.00	\$15.00	\$17.00	\$19.00

Out-of-state meals are not taxable except if there is not an overnight stay. Receipts are not required for meal reimbursement. Chapter 44-08-04, NDCC, provides that employees shall not be reimbursed for the first quarter if travel began after 7:00 a.m.

Taxable Meal Reimbursements — As per Internal Revenue Code regulations concerning employee business expenses, the following will apply for meal expenses:

Meal reimbursements, during travel that does not require sleep or rest (non-overnight travel), are included in taxable gross income and subject to withholding and employment taxes and must be reported on Form W-2.

Any out-of-state meal reimbursements, which are regarded as non-overnight travel, will be treated as gross wages to the employee for tax purposes. Also, non-overnight meal expenses are not deductible for individual income tax purposes.

City	GSA Rate	City	GSA Rate	City	GSA Rate
ALABAMA		CONNECTICUT		KANSAS	
Birmingham	30	Bridgeport/Danbury	30	Kansas City	34
Huntsville	30	Hartford	36	Wichita	30
Mobile	30	New Haven	34	KENTUCKY	
ARIZONA		New London/Groton	30	Covington	30
Grand Canyon Nat'l		Salisbury	36	Lexington	30
Park/Flagstaff	30	DELAWARE		Louisville	34
Phoenix/Scottsdale	34	Lewes	30	LOUISIANA	
Prescott	30	Wilmington	34	Alexandria	30
Tucson	30	DISTRICT OF COLUMBIA		Baton Rouge	30
ARKANSAS		Washington DC		Bossier City	30
Hot Springs	30	Alexandria,		Lafayette	30
Little Rock	30	Falls Church, Fairfax	36	Lake Charles	30
CALIFORNIA		FLORIDA		New Orleans	34
Bridgeport	34	Cocoa Beach	30	Shreveport	30
Chico	30	Fort Lauderdale	34	Slidell	30
Death Valley	38	Fort Myers	30	MAINE	
El Centro	30	Fort Pierce	30	Auburn	30
Eureka	30	Fort Walton Beach	30	Bangor	30
Fresno	30	Gainesville	30	Bar Harbor	34
Gualala/Point Arena	34	Jacksonville	30	Kennebunk/Sanford	30
Los Angeles	38	Key West	36	Kittery	30
Merced	30	Kissimmee	30	Portland	30
Modesto	34	Miami	34	Rockport	30
Monterey	34	Naples	34	MARYLAND	
Napa	34	Punta Gorda	30	Annapolis	34
Oakland	36	Saint Augustine	30	Baltimore	34
Ontario/Victorville/Barstow	34	Stuart	30	Columbia	34
Palm Springs	36	Tampa/St. Petersburg	30	Frederick	34
Redding	30	West Palm Beach	34	Hagerstown	30
Sacramento	34	GEORGIA		Lusby	34
San Diego	38	Atlanta	36	MASSACHUSETTS	
San Francisco	36	Norcross/Lawrenceville	30	Andover	30
San Jose	36	Savannah	30	Boston	38
San Luis Obispo	34	Warner Robins	30	Cambridge/Lowell	38
San Mateo	36	IDAHO		Martha's Vineyard/	
Santa Barbara	34	Boise	30	Nantucket	36
Santa Cruz	34	Ketchum/Sun Valley	36	Pittsfield	30
Santa Rosa	34	McCall	30	Quincy	30
South Lake Tahoe	34	ILLINOIS		South Deerfield/Greenfield	38
Stockton	30	Champaign/Urbana	30	Springfield	30
Tahoe City	38	Chicago	38	Worcester	30
Vallejo	30	Peoria	30	MICHIGAN	
Visalia	30	Rockford	30	Ann Arbor	30
Yosemite National Park	38	Springfield	30	Benton Harbor/St. Joseph/	
Yuba City	30	INDIANA		Niles	30
COLORADO		Bloomington	30	Detroit	38
Aspen	38	Columbus	30	Flint	30
Boulder	34	Evansville	30	Grand Rapids	30
Denver	38	Gary	30	Kalamazoo	30
Durango	34	Indianapolis	30	Mackinac Island	34
Glenwood Springs	30	Lafayette	30	Pontiac	30
Keystone/Silverthorne	38	Nashville	30	Port Huron	30
Steamboat Springs	30			Saginaw	30
Vail	38				

City	GSA Rate	City	GSA Rate	City	GSA Rate
MINNESOTA		Monticello	30	RHODE ISLAND	
Duluth	34	New York City	38	East Greenwich	34
Mendota Heights	30	Niagara Falls	34	Newport	38
Minneapolis/St. Paul	34	Palisades	34	Providence	34
St. Cloud	30	Rochester	34		
MISSISSIPPI		Saratoga Springs	38	SOUTH CAROLINA	
Jackson	30	Schenectady	30	Charleston	34
Vicksburg	30	Syracuse	30	Columbia	30
		Troy	30	Hilton Head	30
MISSOURI		Utica	30	Myrtle Beach	30
Kansas City	34	Watertown	30		
Lake Ozark	34	Watkins Glen	30	TENNESSEE	
Osage Beach	30	West Point	30	Gadinsburg	30
St. Louis	34	White Plains	38	Kingsport/Bristol	30
NEBRASKA				Memphis	30
Omaha	30	NORTH CAROLINA		Nashville	30
NEVADA		Asheville	30		
Elko	30	Charlotte	34	TEXAS	
Las Vegas	38	Greensboro/High Point	30	Amarillo	30
Reno	30	Raleigh/Durham/Chapel Hill	30	Austin	30
NEW HAMPSHIRE				Brownsville	30
Conway	30	OHIO		Corpus Christi	30
Laconia	30	Akron	30	Dallas/Fort Worth	34
Manchester	30	Cincinnati/Evendale	34	El Paso	30
Portsmouth/Newington	30	Cleveland	38	Galveston	34
		Columbus	34	Houston	34
NEW JERSEY		Dayton/Fairborn	30	Laredo	30
Atlantic City	38	Port Clinton/Oak Harbor	30	Plano	30
Belle Mead	34	Sandusky	30	San Antonio	30
Camden	34	Springfield	30		
Edison	38	Toledo	30	UTAH	
Freehold/Eatontown	34			Provo	30
Millville	30	OREGON		Salt Lake City/Ogden	30
Moorestown	34	Bend	30	St. George	30
Newark	38	Eugene	30		
Ocean City/Cape May	38	Lincoln City/Newport	30	VERMONT	
Princeton/Trenton	34	Portland	30	Middlebury	30
Tom's River	30			White River Junction	30
NEW MEXICO		PENNSYLVANIA			
Albuquerque	34	Allentown	34	VIRGINIA	
Farmington	30	Bloomsburg	30	Amiesville	30
Las Cruces/White Sands	30	Chester/Radnor	38	Blacksburg	30
Santa Fe	34	Easton	30	Charlottesville	34
Taos	30	Gettysburg	30	Lynchburg	30
NEW YORK		Harrisburg	34	Norfolk	34
Albany	30	King of Prussia/Ft		Richmond	30
Binghamton	30	Washington	34	Roanoke	30
Buffalo	34	Lancaster	30	Warrenton	30
Corning	30	Mechanicsburg	30	Williamsburg	34
Glens Falls	30	Pittsburgh	34	Wintergreen	34
Ithaca	30	Scranton	30		
Kingston	30	Shippingport	30	WASHINGTON	
Lake Placid	30	State College	30	Anacortes	30
		Stroudsburg	30	Bellingham	30
		Valley Forge	34	Bremerton	30
		Warminster	30	Kelso/Longview	30
		Wilkes-Barre	30	Lynnwood/Everett	30
		York	30	Port Angeles	30
				Richland	30
				Seattle	34

City	GSA Rate	City	GSA Rate	NOTE: BREAKDOWN BY QUARTER:
Spokane	30	WISCONSIN		
Tacoma	30	Brookfield	34	
Tumwater/Olympia	34	Eau Claire	30	
Vancouver	34	La Crosse	30	<i>First Qtr:</i> 6:00 am to 12:00 noon 20% of daily rate
Whidbey Island	30	Lake Geneva	30	<i>Second Qtr:</i> 12:00 noon to 6:00 pm 30% of daily rate
Yakima	34	Madison	30	
WEST VIRGINIA		Milwaukee	30	
Charleston	30	Mishicot	30	<i>Third Qtr:</i> 6:00 pm to 12:00 midnight 50% of daily rate
Morgantown	30	Oshkosh	30	
Parkersburg	30	Wisconsin Dells	30	
		WYOMING		
		Casper	30	
		Cheyenne	30	
		Jackson	30	

Travel Expense Vouchers must separate out-of-state meal reimbursements into one or more of the following categories:

TCC	Description
389	Out-of-State Meals - Taxable non-overnight stay
391	Out-of-State Meals - Nontaxable

Any out-of-state meal reimbursements for non-overnight travel are included in TCC 389. Any out-of-state meal reimbursements for overnight travel are included in TCC 391.

Payroll Taxes — Refer to the "PAYROLL TAXES" information in the IN-STATE TRAVEL Section.

Lodging - Out-of-State — Chapter 44-08-04, NDCC, provides for reimbursement of employee lodging expenses while an employee is away from his/her normal working and living residence for four hours or overnight.

Only receipts from bona fide lodging establishments will be accepted for reimbursement. The receipt must be the official receipt from the lodging establishment and not a charge slip from a credit card system. If a lodging receipt is lost, contact the lodging establishment for a duplicate copy.

- The maximum expense allowance for lodging for a twenty-four period is the Actual amount of the lodging expense.
- Lodging charges when accompanied by an individual not eligible for reimbursement:** When accompanied on a University authorized trip by a spouse or traveling companion, the employee must have the lodging establishment clearly certify the room rate for a single person and only that amount may be claimed.
- Lodging charges when two employees shared lodging:** If two employees are sharing lodging accommodations, the actual cost of the room must be split evenly. The original receipt is submitted with the Travel Expense Voucher for the employee in whose name the room was registered. Both parties should indicate the name of the individual they shared the room with on their respective Travel Expense Voucher. A copy of the lodging receipt is attached to the other employee's voucher.
- Lodging charges are only reimbursed to an individual/employee:** Only individuals/employees may be reimbursed for lodging expenses; a lodging facility may not be paid directly by the University.

Personal Vehicle Mileage - Out-of-State — Mileage allowances are assumed to be total operating costs for vehicles and no additional amounts will be paid for such items as traffic tickets, toll fees, or any other normal recurring automobile expenses. Parking fees may be claimed only with a receipt for parking at hotels/motels (when the fourth quarter is claimed) and at airports.

Telephone Expenses — Employees may be reimbursed for telephone calls to their residence, while in travel status, subject to the following provisions and limitations:

1. Reimbursement will be limited to an equivalent of one call per three days of travel status (72 hours).
2. The reimbursable amount shall be limited to \$3 per call.
3. In order to claim this expense, the charge must appear on the receipt submitted for lodging, or on a separate receipt.

Registration Fees — Registration fees to bona fide conferences and seminars which are in excess of \$25 may be paid in advance by submitting a Request for Payment with the original, completed registration form. Such fees may not include lodging. Registration fees of \$25 and less should be paid by the employee who will attend the meeting, and will be reimbursed on a Travel Expense Voucher (original receipt required).

If meals are included in such a fee, that information must be reflected as supporting data on the Travel Expense Voucher and must be considered a credit against the related meal allowance for the appropriate travel quarter.

Car Rental — The University has an agreement with an insurance carrier (ND Insurance Reserve Fund) to provide the insurance required by car rental agencies, although only in limited locations. The coverage territory includes the United States, the territories and possessions of the United States, Puerto Rico and Canada.

If an employee accepts the insurance coverage offered by the rental car company for the covered territory, they will not be reimbursed for the insurance cost. When coverage is not provided by the University, the traveler should accept the car rental insurance required by the location. This will be reimbursed on the Travel Expense Voucher.

The University will reimburse an employee for a car rental if the employee used an aircraft to get to his/her destination, and if the use of the vehicle is sufficient to justify that mode of travel instead of a taxi. Car rental from Grand Forks is not allowed. An original receipt is required; credit card receipts are not accepted. Payments will be reimbursed to the individual only; charges may not be made to the University.

The University has agreements with National, Avis and Hertz car rental agencies. Vehicles can be rented at corporate rates for both personal and business use. To take advantage of the corporate rate program, indicate to the car rental agency the University of North Dakota Discount Program Number below:

Avis:	#A005100
Hertz:	#B0401
National:	#5161586

Car rental stickers are distributed from the Controller's Office. Upon picking up the vehicle, you may be required to present the car rental sticker and your staff ID card.

Intercontinental Travel — Intercontinental travel shall be authorized only when made by air and when it is clear that the employee's job demands permit the time expended. Exceptional cases may be brought to the Board of Higher Education for specific approval. Intercontinental travel must be approved by the appropriate vice president prior to the submission of the Out-of-State Travel Authorization to the Controller's Office.

Unallowable Expenditures

The following items may not be paid for from University funds: alcoholic beverages; food or beverages for departmental activities; coffee pots, cups, etc; plants; flowers; gifts; pictures, photographs, or picture frames; Christmas cards and decorations; personal dues or memberships; personal care items. (This is not an all inclusive listing).

LuckeJ94

ACCOUNTING SYSTEM ON-LINE INQUIRIES

This section will provide information on how to utilize the inquiry screens which will be helpful to UND departments. This section is divided into areas as follows:

- A. Name/Address
- B. Purchasing
- C. Receipting
- D. Accounts Payable
- E. Accounts Receivable
- F. General Ledger
- G. Check Reconciliation

In each area, procedures will be outlined for each inquiry screen, and a sample screen as it will appear to you will be shown. Be aware that each operator is responsible for becoming familiar with his/her own PC/CRT, as there are various models around campus, each having its own peculiarities.

A. NAME/ADDRESS

NA75 NAME AND ADDRESS INQUIRY

This inquiry screen will give you name and address information about an individual, providing you have his/her NAID number or Social Security number available.

STEP ONE: Type NA75
 Press the ENTER key
 The following screen will appear:

NA75 NAME/ADDRESS INQUIRY BY ID# OR SS#

PLEASE ENTER NAID NBR: CHECK DIGIT:
OR SOCIAL SECURITY NBR:

STEP TWO: Type in either the individual's NAID number or
 Social Security number (including hyphens)
 Press the ENTER key
 The following screen will appear:

NA75 NAME/ADDRESS MASTER DATA
NAID#: 30185-0 SS/TIN#: 000-00-0001 TYPE: 1 VNR MJ: MN: CMPY ORG:
NAME : DOE, JOHN SRCH NM: DOE STAT: 0 REL IN-
FRMR NM: SP NM:
ADDRESS1 USED FOR LOCAL/CAMPUS: X HOME: PARENT: ORDER: REMIT: BILL:
LINE1: BOX 8253 LINE2:
CITY : GRAND FORKS STATE: ND ZIP: 58202 COUNTY: FOREIGN:
FRN CNTRY: PHONE: DATE UPDATED: 08-03-

ADDRESS2 USED FOR LOCAL/CAMPUS: HOME: PARENT: ORDER: REMIT: BILL:
LINE1: LINE2:
CITY : STATE: ZIP: COUNTY: FOREIGN:
FRN CNTRY: PHONE: DATE UPDATED:

ADDRESS3 USED FOR LOCAL/CAMPUS: HOME: PARENT: ORDER: REMIT: BILL:
LINE1: LINE2:
CITY : STATE: ZIP: COUNTY: FOREIGN:
FRN CNTRY: PHONE: DATE UPDATED:

COMMENTS:

CONTINUED ON NEXT PAGE.....

STEP THREE: When finished with this screen, press the CLEAR key, which will bring back the original NA75 inquiry screen. Then press the PA1 key, this will terminate the session.

NA80 NAME AND ADDRESS INQUIRY BY SEARCH NAME

This inquiry screen provides the NAID number of an individual or a company by doing a search by the last name or by the company name. The name must be spelled correctly.

STEP ONE: Type NA80
Press the ENTER key
The following screen will appear:

NA80 NAME/ADDRESS INQUIRY BY SEARCH NAME

SEARCH NAME:
ENTER TYPE: 1 (0=COMPANY, 1=PERSON)

STEP TWO: Type the name of the company or the last name of the individual whom you are searching. For the "TYPE", type 0 if it is a company, or leave it as a 1 if it is a person. In this case, we have typed in NORBYS.

NO RECORDS FOUND FOR THIS NAME AND TYPE, RE-ENTER
NA80 NAME/ADDRESS INQUIRY BY SEARCH NAME

SEARCH NAME: NORBYS
ENTER TYPE: 0 (0=COMPANY, 1=PERSON)

STEP THREE: Press the ENTER key
The following screen will appear:

NA90	N/A SEARCH NAME DISPLAY				
SEARCH LISTING FOR: NORBYS					
NAME	NAID NBR	SS NBR/TIN	STA CITY	ST F	
NORBYS DEPARTMENT STORE	429-4		GRAND FORKS	ND	
NORBYS OFFICE PRODUCTS	56950-0	450354872	FARGO	ND	
NORBYS OFFICE SERVICES	64888-2	450364120	GRAND FORKS	ND	
NORBYS BRIDAL SALON	132808-5		GRAND FORKS	ND	

Many of these screens have more than one page, so the operator may have to press the PF1 key in order to advance the page.

STEP FOUR: Press the PA1 key which will terminate the session.

NA90 NAME AND ADDRESS INQUIRY BY LAST AND FIRST NAME

This inquiry screen provides the NAID number of an individual or a company by doing a search by the last and first name or the company name. If the correct spelling is not known, this screen will allow you to put in a partial search name.

STEP ONE: Type NA90
Press the ENTER key
The following screen will appear:

NA90	NAME/ADDRESS SEARCH BY PARTIAL ENTRY	
ENTER SEARCH NAME		
LAST:		
FIRST:		TYPE: 1

STEP TWO: Type the last and first name of the individual or the company whom you are searching. The last and first name can be entered as an initial or partial name.

NA90	NAME/ADDRESS SEARCH BY PARTIAL ENTRY	
ENTER SEARCH NAME		
LAST: DOE		
FIRST: JOHN		TYPE: 1

The following is an example of using a last name with a partial first name.

NA90 NAME/ADDRESS SEARCH BY PARTIAL ENTRY

ENTER SEARCH NAME

LAST: DOE
FIRST: J

TYPE: 1

STEP THREE: Press the ENTER key
The following screen will appear:

NA90 NAME/ADDRESS SEARCH BY PARTIAL NAME

NAME	NAID NBR	SS NBR/TIN	STA CITY	ST
DOE, JOHN	30185-0	000-00-0001	GRAND FORKS	ND

STEP FOUR: Press the ENTER key to return to the NA90 screen. Press PA1 to terminate this session.

B. PURCHASING

PC12 PURCHASING INQUIRY

This inquiry screen enables departments to obtain information about their various purchase orders.

STEP ONE: Type PC12
 Press the ENTER key
 The following screen will appear:

PC10	PURCHASING MENU	ENTER:	UND
1. PURCHASE ORDER CREATION/MOD		MENU #/PO #	
2. FUND MODIFICATION		MENU #/PO #	
3. PURCHASE ORDER CANCELLATION		MENU #/PO #	
4. PO INQUIRY BY PO #		MENU #/PO #	
5. PO INQUIRY BY N/A #		MENU #/N/A #	(DATES OPTIONAL)
6. PO INQUIRY BY FUNDING DEPT #		MENU #/DEPT	(DATES OPTIONAL)
7. PO INQUIRY BY REQ #		MENU #/REQ #	
8. PAYMENT DETAIL BY FUND		MENU #/PO #	
9. OPEN PO BY FUND		MENU #/FUND	(DATES OPTIONAL)
MENU #	DATA #	DATES: FROM	TO

You will be able to use Menus 4 through 9. Most are self-explanatory, but we will go through Menu 4 step by step.

STEP TWO: Type 4 in the Menu field and the PO number in
 the data field
 Press the ENTER key
 The following screen will appear:

PC30

PURCHASE ORDER SUMMARY SCREEN

UNCL

PO #...: 298654 CREATION CODE: 1 REQUESTING DEPT: 0408
 PO TYPE: 1 REQUESTOR.....: NELSON
 DATE...: 06-14-91 BID/QUOTE #....:
 ID #...: 28956 DELIVERY DATE...:
 OPER ID: RR PO STATUS..... CLOSED

LINE ITEM NBR DESCRIPTION	QTY ORD	QTY RCVD	QTY CAN	UNIT PRICE	TOTAL PRICE	DISCOUNT AMOUNT	NE PRIC
1 DIAMOND LAPPING PASE 6 MICRONS	4	4	0	79.00	316.00	.00	316.00
2 DIAMOND LAPPING PASTE 1 MICRON	2	2	0	50.00	100.00	.00	100.00

AMT PAID TO DATE: 378.91 PURCHASE ORDER TOTAL: 416.00

This screen gives you the following information:

1. Purchase Order Number (PO #)
2. Date of Purchase Order (DATE)
3. Requesting Department Number
4. Vendor NAID Number (ID #)
5. Description of goods ordered (DESCRIPTION)
6. Amount paid to date
7. Purchase Order Total

STEP THREE: Press the ENTER key. You will then get this additional message at the bottom of your screen:

1.DETAIL MASTER 2.LINE ITEM/ITEM # 3.FUND 4.PAYMENT 5.TERMINATE INQUIRY
 ENTER OPTION: ENTER DATA #:

You now have the option of entering one of five options in order to get various information about that particular purchase order. We will enter each of the five menus and show the information retrieved by each. In each case, type the number of the option and then press the ENTER key.

This is the information given when option 1 is selected:

PC15	PURCHASE ORDER MASTER DATA	UND
PURCHASE ORDER #: 298654	PO DATE.....: 06-14-91	
REQUISITION #....:	REQUESTING DEPT # : 0408	OPER ID: RR
REQUESTED BY.....: NELSON	REQUEST DEPT NAME : PATHOLOGY	
NA ID #.....: 28956	VENDOR NAME: SHANDON	
DELIVERY DATE....:	APPROVING INITIALS :	
STATUS CODE.....: CLOSED	CAMPUS DELIVERY ADDR: MED SCI S / 221	

----- SHIP TO ADDRESS -----
NAME: UNIVERSITY OF NORTH DAKOT
ADDR: PO BOX 8153, UNIV STATION
ADD2: CENTRAL REC - CAMPUS DR
CITY: GRAND FORKS
ST.: ND ZIP: 58202 -

----- BILL TO ADDRESS -----
NAME: UNIVERSITY OF NORTH DAKOT
ADDR: PO BOX 8153, UNIV STATION
ADD2: CENTRAL REC - CAMPUS DR
CITY: GRAND FORKS
ST.: ND ZIP: 58202 -

CREATION CODE: 1	TYPE CODE.....: 1	TOTAL AMT: 416.00
FREIGHT CODE :	SHIP VIA.....:	
BID/QUOTE # :	BID/QUOTE DATE:	

1.DETAIL MASTER 2.LINE ITEM/ITEM # 3.FUND 4.PAYMENT 5.TERMINATE INQUIRY
ENTER OPTION: ENTER DATA #:

This is the information given when option 2 is selected:

PC20	PURCHASE ORDER LINE ITEMS	UND
PO #.....: 298654	LINE ITEM #....: 1	
QUANTITY ORDERED: 4	UNIT OF MEASURE:	
UNIT PRICE.....: 79.00	EXTENDED PRICE.: 316.00	
	DISCOUNT AMOUNT: .00	
	NET PRICE.....: 316.00	
CAPITALIZATION CODE.: 0	FUND NUMBERS....:	
DESCRIPTION.....: DIAMOND LAPPING PASE 6 MICRONS		
YELLOW -- #99929994		

DATE OF LAST RECEIPT.....: 07-10-91	QUANTITY RECEIVED.: 4
DATE LINE ITEM CANCELLED:	QUANTITY CANCELLED: 0
STATUS CODE.....: 1	

CONTINUED NEXT PAGE

PAGE 1

This is the information given when option 3 is selected:

PC40				PO FUND DATA				UND
				PURCHASE ORDER NUMBER: 298654				
ACCOUNT #				PURCHASE	LIQUIDATION	EXPENDITURE	UNENCUMBERED	
FUND	DEPT	TCC	PROJ	ORDER AMT	AMT TO DATE	AMT TO DATE	BALANCE	
1134	0408	481		416.00	416.00	378.91	.00	

This is the information given when option 4 is selected:

PC25		PURCHASE ORDER PAYMENT DATA				UND
PO #: 298654		PO STATUS CODE: CLOSED				
		PENDING				
		PAYMENT				
INVOICE #	INVOICE	DATE	CHECK #	PAYMENT	AMOUNT	
5321670	AMT			DATE	PAID	
	378.91		978723	07-10-91	378.91	

Option 5 is used to terminate the inquiry. After typing 5 and pressing the ENTER key, you will get a the main Purchasing Menu. Press the CLEAR key to terminate the session.

C. RECEIPTING

RC80 RECEIPT INQUIRY

This screen enables the user to inquire on a Business Office Receipt number.

STEP ONE: Type in RC80
 Press the ENTER key
 The following screen will appear:

RC80 RECEIPT INQUIRY/CANCELLATION

ENTER THE RECEIPT # YOU WISH TO CANCEL OR INQUIRE UPON:

STEP TWO: Type the receipt number
 Press the ENTER key
 The following screen will appear:

RC80 RECEIPT INQUIRY/CANCELLATION

RECEIPT #...: 123789	DATE: 01-29-91	TELLER ID: GS	DRAWER ID: GFO1
NAME.....: CONT ED		NA-ID #.....:	
DESCRIPTION: DEPOSIT		RECEIPT AMOUNT:	100.00
MONIES:CASH AMOUNT:	517.00	CHECK AMOUNT...:	1707.00
CASH RETURNED.....:	2124.00	STATUS: NOT CANCELLED	TYPE: CASH
		TERM: SESS:	PRINTED

FUND DEPT TCC PROJ	AMOUNT	FUND DEPT TCC PROJ	AMOUNT
1033 9301 108 3403	100.00		

STEP THREE: Press the ENTER key again, which will return
 the RC80 screen. Press the PA1 or CLEAR key
 to terminate the session.

D. ACCOUNTS PAYABLE

AP77 ACCOUNTS PAYABLE INVOICE INQUIRY BY NAID

This screen enables the user to inquire on all payments made to a particular vendor or individual providing the user knows the NAID number or the individual's Social Security number.

STEP ONE: Type AP77
 Press the ENTER key
 The following screen will appear:

```
AP77                      INVOICE INQUIRY BY NAID

NAID OR SSNO:             CK DGT:      PENDING PMTS ONLY:      INVOICE TYPE:
                          FM CHECK DATE:      TO CHECK DATE:
                          INVOICE NBR...:
```

PENDING PMTS/INVOICE TYPE/CHECK DATES/INVOICE NBR ARE OPTIONAL

INVOICE TYPES = R - REGULAR
 F - FLEXCOMP
 D - DEPENDENT CARE
 M - MEDICAL REIMB
 L - LOAN AND F/A ADVANCES
 A - A/R REFUNDS
 X - EXTERNAL POS

STEP TWO: Type the NAID number or the individual's Social Security number. The check digit, titled, "CK DGT", is optional. When an X is entered following the "PENDING PAYMENTS ONLY" data field, all invoices entered for payment on the day that the inquiry is made will only be shown. The "INVOICE TYPE" is a letter code, as listed on the screen. Also included on the screen are two data fields for check dates. The first date field will select all records with a check date equal to or greater than the input date. The second date field will select all records less than or equal to the input date. If both dates are entered, all records selected will have their check date between the two dates. If no dates are entered, all records will be selected for that NAID number. The check dates are optional at this time. However, due to a limit on sort space, a message may be given to use the check date option. The "INVOICE NBR" field is optional. Press the ENTER key.
 The following screen will appear:

AP78	INVOICE INQUIRY BY NAID #						TYPE:	
NAID #:	3546-7	SSNO:	-	-	NAME: RODEN LEATHER			
REQPAY	PO	INVOICE	PEND	PAY	CHECK	S	CHECK	INVOICE
REFNBR	NBR	NUMBER	DATE	NUMBER	T	DATE		PAY AMT
	288787	C05300			930803	N	12-27-90	258.69
TOTALS	# INVOICES:		1					258.69

STEP THREE: Press the ENTER key to return to the original AP77 screen. Press the PA1 or CLEAR key to terminate this session.

AP90 ACCOUNTS PAYABLE REQUEST FOR PAYMENT INVOICE INQUIRY

This inquiry screen will prove to be one of the most useful screens for departmental use. The user can inquire using the Request for Payment reference number, and will be able to determine if and when the RFP was processed.

STEP ONE: Type AP90
Press the ENTER key
The following screen will appear:

AP90	INVOICE INQUIRY (REQUEST FOR PAYMENT)	UND
REFERENCE NUMBER		

STEP TWO: Type the Request for Payment reference number
Press the ENTER key
The following screen will appear:

AP90	INVOICE INQUIRY (REQUEST FOR PAYMENT)		UND
REFERENCE NUMBER	655500		
NA-ID NUMBER	132354	NAME	VAUGHN CUSTOM SPORTS
INVOICE NUMBER	16769	INVOICE DATE	05-09-91
TRANSACTION DATE	05-14-91	INVOICE TOTAL AMT	94.00
PENDING PYMT DATE		- DISCOUNT AMT	
STATUS POSTED - HISTORY		+ FREIGHT AMT	
DESCRIPTION	ATHLETICS	= PAYMENT AMT	94.00
CR MEMO NUMBER		CREDIT AMT	
CUSTOMER NUMBER		LOAN NUMBER	
CHECK NUMBER	962761	CHECK DATE	05-14-91
FUND DEPT TOC PROJ	0255 7200 492	EXPENDITURE AMOUNT	94.00
		CREDIT AMOUNT	

This screen will give you the following information:

1. Request for Payment number (REFERENCE NUMBER)
2. Vendor NAID number
3. Vendor name (NAME)
4. Invoice number
5. Invoice date
6. Description
7. Check number
8. Check date
9. Fund-Dept-TCC
10. Payment amount (EXPENDITURE AMOUNT)

STEP THREE: Press the ENTER key to return to the original AP90 screen. Press the PA1 or CLEAR key to terminate the inquiry session.

NOTE: If the Request for Payment number is entered and an Accounts Payable Menu appears on the screen, this indicates that the payment was a Blanket Purchase Order or Confirmation Order. For the example below, RFP 575956 was entered using AP90. The following will appear on the screen:

AP01

ACCOUNTS PAYABLE MENU

UND

1. INVOICE PAYMENT	ENTER: MENU#/ PO#
2. SESSION TOTALS	MENU#
3. MANUAL CHECK ENTRY	MENU#/ PO#
4. REPLACEMENT CHECK ENTRY	MENU#
5. PAYMENT INQUIRY BY PO#/INVOICE#	MENU#/ PO#/ INVOICE#
6. PAYMENT INQUIRY BY REFERENCE#	MENU#/ REFERENCE#
7. PAYMENT CHANGE	MENU#/ PO#/ INVOICE#
8. PO LIQUIDATION AND EXPENDITURE CHANGE	MENU#/ PO#/ INVOICE#
9. PO LIQUIDATION AND EXPENDITURE INQUIRY	MENU#/ PO#/ INVOICE#

MENU# 5 PO# 0260827 INVOICE# 105186 REFERENCE#

Press ENTER for more information. The following screen will appear:

AP40

PAYMENT INQUIRY

UND

PURCHASE ORDER NUMBER 260827
PURCHASE ORDER TYPE BLANKET
PURCHASE ORDER STATUS CLOSED

NA-ID NUMBER 581
NA-ID NAME UNITED HOSPITAL

INVOICE NUMBER 105186 PAYMENT AMOUNT 576.10
INVOICE DATE 06-25-90 LOAN NUMBER
TRANSACTION DATE 06-25-90 REFERENCE NUMBER 575956
PAYMENT STATUS POSTED-HISTORY

CHECK NUMBER 877648 REPLACEMENT CHECK
CHECK DATE 06-25-90

CREDIT MEMO NUMBER CREDIT AMOUNT

ABSTRACT NUMBER

PENDING PAYMENT DATE

JOB COMPLETED SUCCESSFULLY

Press ENTER or CLEAR to return to the AP90 screen. Then press PA1
or CLEAR to terminate this session.

To obtain further information on the purchase order use the PC12 screen.

At the bottom of the screen, additional commands are listed as follows:

Press PF7 to return to the TRANSACTION INQUIRY screen.
Press PF6 for documentation.
Press PA1 to terminate this session.

To inquire on a specific transaction when the reference number is known, follow these steps:

STEP ONE: Type a "C" for a charge or an "M" for a credit memo in the field titled "TRANSACTION TYPE"
Type the reference number in the "REFERENCE" field. The reference number is computer-generated when the charge or credit memo is processed. For the following example, a charge transaction with the reference number 2690217 was used.
Press the ENTER key
The following screen will appear:

```
AR06                                TRANSACTION INQUIRY                                10/25/

TRANS TYPE...: CHARGE                REFERENCE NBR.....: 2690217
NAID NUMBER...: 194101              1    SSNO.....:
NAME.....: TECHNOLOGY APPLICATIONS GROUP COLL STATUS.....: REGULAR
BALANCE OWED...: 840.04              TRANSACTION DATE...: 10 21 91
DOCUMENT NBR...: 099299              POSTED.....: Y
SOURCE TYPE...: AR                  TYPE CODE.....:
HOLD DESCR...:                     BUSINESS HOLD.....:
CANCELLATION...:                   BILLED.....:
PMT/CHG PRIOR: 9                   DRAW AVAIL.....:
CREATE DATE...: 10 23 91            YEAR TERM.....: 921

FUND DEPT TCC PROJ DESCRIPTION                                AMOUNT
7766 9407 142          TRAFFIC                                26.0
FUND/TCC DESCR.....: PARKING LOT REVENUE /PARKING TOLLS

ALLOCATED AMOUNT.....:                UNALLOCATED AMOUNT:    26.0

ENTER = CONTINUE    PA1 = TERMINATE    PF7 = MENU    PF6 = DOCUMENTATION
```

Remember, the additional commands are listed across the bottom of the screen.

If the document number is known, follow these steps:

STEP ONE: Type the document number in the "DOCUMENT NUMBER" field. The document number is the number preprinted on the Accounts Receivable Charge or Credit Memo form. In the following example, the document number 099299 was used. Press the ENTER key. The following screen will appear:

```
AR06                                TRANSACTION INQUIRY                                10/25/

TRANS TYPE...: CHARGE                REFERENCE NBR.....: 2690217
NAID NUMBER...: 194101                SSNO.....:
NAME.....: TECHNOLOGY APPLICATIONS GROUP  COLL STATUS.....: REGULAR
BALANCE OWED...: 840.04                TRANSACTION DATE...: 10 21 91
DOCUMENT NBR...: 099299                POSTED.....: Y
SOURCE TYPE...: AR                    TYPE CODE.....:
HOLD DESCR...:                        BUSINESS HOLD.....:
CANCELLATION...:                      BILLED.....:
PMT/CHG PRIOR: 9                      DRAW AVAIL.....:
CREATE DATE...: 10 23 91                YEAR TERM.....: 921

FUND DEPT TCC PROJ DESCRIPTION                                AMOUNT
7766 9407 142          TRAFFIC                                26.0
FUND/TCC DESCR.....: PARKING LOT REVENUE /PARKING TOLLS

ALLOCATED AMOUNT.....:                UNALLOCATED AMOUNT:                26.0

ENTER = CONTINUE
PF4 = FIRST PAGE      PA1 = TERMINATE      PF7 = MENU      PF6 = DOCUMENTATION
```

Again, the additional commands are shown across the bottom of the screen.

This screen will enable the user to inquire on a particular accounts receivable account using the NAID or Social Security number.

10/25/9

PF6 = DOCUMENTATION

10/25/9

PA1 = TERMINATE
PAGE 1

If a "Y" is typed in the "BY SOURCE CODE" field, the transactions will be sorted by their source. The Source Codes are listed below:

TUITION/FEES	AVIATION
CONTINUING EDUCATION	STUDENT HEALTH
FINANCIAL AID	PARKING
HOUSING	OTHER CHARGES
BOOKSTORE	

In the following example, a "Y" was typed in the "BY SOURCE CODE" field:

AR07	A/R BALANCE ANALYSIS	10/25/
NAID NBR.....: 194101	1	SSNO.....:
NAME.....: TECHNOLOGY APPLICATIONS GROUP		COLL STATUS.....: REGULAR
HOLD AND DESC:		ADVANCE PMT AMT:
TERM ENROLLED:		LAST STMT BAL...: 839.27
		BALANCE OWED...: 840.04
DEFERMENT CODE/DESCRIPTION:		
C 002612203 09/06/91 7766 9407 142	TRAFFIC	26.00 26.00
C 002690217 10/21/91 7766 9407 142	TRAFFIC	26.00 26.00
OTHER CHARGES		--TOTAL-- 52.00
C 002644328 10/01/91 0573 7330 173	FY '92 RENT	400.00 381.09
C 002691486 10/23/91 0573 7330 143	FY92 GALLERY WG	6.95 6.95
C 002686176 11/01/91 0573 7330 173	FY '92 RENT	400.00 400.00
HOUSING		--TOTAL-- 788.04

PF6 = DOCUMENTATION
P/ 1 FINAL PAGE

PF7 = RETURN
NBR TRANSACTIONS = 5

PA1 = TERMINATE
PAGE 1

F. GENERAL LEDGER

GL19 CHART OF ACCOUNTS

This inquiry screen enables the user to inquire on fund numbers, departments, project numbers, and TCC numbers.

STEP ONE: Type GL19
 Press the ENTER key.
 The following screen will appear:

GL19	CHART OF ACCOUNTS MENU				UND
ADD	DELETE	CHANGE	INQUIRY X		
INSTITUTION					
VP					
COLLEGE					
DEPARTMENT					
FUND NUMBER		FISCAL YEAR			
PROGRAM NUMBER					
PROJECT NUMBER					
HEGIS					
TCC					
FUND GROUPS	MAJOR	SUB	FUNCTION	SUB FUNCTION	
TCC GROUPS	MAJOR	SUB	MINOR		
TO ESTABLISH THE AUTHORIZED DEPARTMENTS					
FUND NUMBER		FISCAL YEAR			
TO ESTABLISH THE TCC RELATIONSHIPS					
FUND NUMBER		FISCAL YEAR			

To inquire on a fund number, type the fund number and the fiscal year. Press the enter key. The following screen will appear:

```

GL25                                FUND                                UND
                                                                    INQUIRY
                                                                    ACTIVE

FUND..... 2401    FISCAL YEAR 92

TITLE..... CONTROLLER'S OFFICE
FUND TYPE..... O      (APPROP=A GRANT=G CONTRACT=C LOAN=L OTHER=O)
FUND GROUPS..... 10   10   07   10   (MAJOR SUB FUNCTION SUBFUNCTION)
ST TREAS FUND.....
CNTRL DEPT..... 8210
PROGRAM CODE.....
HEGIS CODE.....
BANK ACCOUNT..... 005-10-019
G/C NON-FUND CNTRL
OVERDRAW..... Y      (YES=Y NO=N)
AVAIL FUNDS CNTRL CA   (BUD-LINE=BL BUD-CAT=BC BUD-TOT=BT CASH=CA TOT-DIR=TD)
PROJ RPT MANDATORY N      (YES=Y NO=N)
FUND ON I-E STMT.. N      (YES=Y NO=N)
IF APPROP OR ST TREAS FUND:
  OMB DEPT.....
COST CENTER.....
  
```

PAGE 1

USE PF1 TO GET GRANT & CONTRACT \$
OR USE ENTER KEY TO RETURN TO MENU

To inquire on a project number, type the project number. Press the ENTER key. The following screen will appear:

```

GL27                                PROJECT                                UND
                                                                    INQUIRY
                                                                    ACTIVE

NUMBER 8000

TITLE GENERAL PROJECT *
PRINCIPAL INVESTIGATOR
CONTROLLING DEPT 8183
PROJECT START DATE - - - - - PROJECT END DATE - - -
TOTAL BUDGET .00 PROJECT EXPENDITURE 10304.42
PROJECT BUDGET
OCCURANCE FUND BUDGET
01 9730 .00
OCCURANCE R P A CODES
  
```

To inquire on a department, type the department number. Press the ENTER key. The following screen will appear:

GL24

DEPARTMENT

UND
INQUIRY
ACTIVE

VICE PRESIDENT CODE 02

COLLEGE CODE

DEPARTMENT NUMBER 8210

DEPARTMENT NAME CONTROLLER'S OFFICE

DEPARTMENT ABBREVIATION CONTROLLER

DEPARTMENT HEAD PEGGY LUCKE

CAMPUS ADDRESS 100 TWAMLEY HALL

MANDATORY PROJECT REPORTING YES NO X

OMB DEPT NBR 230

JOB COMPLETED SUCCESSFULLY

To inquire on the departments that are set up for a particular fund, type in the fund number and the fiscal year in the field titled "TO ESTABLISH THE AUTHORIZED DEPARTMENTS." Press the ENTER key. The following screen will appear:

GL30

VIEW AUTHORIZED DEPARTMENTS

UND

FUND 2401 FISCAL YEAR 92
CONTROLLING DEPARTMENT 8210

NUMBER	NAME
8210	CONTROLLER'S OFFICE

To inquire on the TCC numbers that are set up for a particular fund, type the fund number and the fiscal year in the last field on the screen, which is titled "TO ESTABLISH THE TCC RELATIONSHIPS." Press the ENTER key. The following screen will appear:

GL33

DISPLAY TCC RELATIONSHIPS

UND
INQUIRY
ACTIVE

FUND 2401

FISCAL YEAR 92

CATEGORY ASSETS

TCC	DESCRIPTION	STATUS
003	CASH IN BANK	ACTIVE
016	ACCOUNTS RECEIVABLE	ACTIVE

SUBJECT TO IC

CATEGORY LIABILITIES

TCC	DESCRIPTION	STATUS
070	ACCOUNTS PAYABLE	ACTIVE
071	SALARIES PAYABLE	ACTIVE

SUBJECT TO IC

CATEGORY EQUITIES

TCC	DESCRIPTION	STATUS
091	FUND BAL - UNRESTRICTED	ACTIVE

SUBJECT TO IC

CATEGORY INSTITUTIONAL SALES & SERVICES

TCC	DESCRIPTION	STATUS
138	MISCELLANEOUS INCOME	ACTIVE

SUBJECT TO IC

CONTINUED ON NEXT PAGE

PAGE 1

Use the PF1 key to advance pages when there is more than one page to the report.

To terminate this inquiry, press the ENTER key, which will return the original GL19 screen. Press the PA1 key to terminate the session.

GL53 JOURNAL ENTRY, BUDGET TRANSFER, INTERDEPARTMENTAL BILLING

This screen allows inquiry on journal entries, budget transfers, and interdepartmental billings that have been previously processed.

STEP ONE: Type GL53
 Press the ENTER key
 The following screen will appear:

```
GL50                                JOURNAL ENTRY PROCESSING                                UND

MODE                                TYPE
01  ADD                            01  JOURNAL ENTRY
02  INQUIRY                        02  BUDGET TRANSFER
03  CHANGE                         03  INTER-DEPARTMENTAL BILLING
04  DELETE

ENTER
MODE SELECTED
TYPE SELECTED
```

STEP TWO: To inquire on a JOURNAL ENTRY, type 02 in the mode field and 01 in the type field.
 To inquire on a BUDGET TRANSFER, type 02 in the mode field and 02 in the type field.
 To inquire on an INTERDEPARTMENTAL BILLING, type 02 in the mode field and 03 in the type field.
 Press the ENTER key. A new data field will then appear. Type the reference number of the JE, BT, or ID on which you are inquiring. Press the ENTER key again. The following screen will appear. (As an example, we have inquired on JE number 159956.)

```
GL51                                UND
                                INQUIRY
                                JOURN ET

TRANS DATE: 06-28-91   POST: 06-28-91   PROCESSING DATE: - -
REFERENCE NO 159956   NAID#                NO ABSTRACTING

FUND DEPT TCC PROJ   E X P L A N A T I O N   DEBIT   CREDIT
5291 0909 750       INDIRECT COST           1610.87
5291 0909 003       CASH IN BANK                1610.87
```

To terminate this inquiry, press the ENTER key, which will return the GL53 menu. Press the PA1 key to terminate the session.

GL70 REPORT INQUIRY

This inquiry process has many uses. We will demonstrate several in the following section.

STEP ONE: Type GL70
 Press the ENTER key
 The following screen will appear:

GL70	GENERAL LEDGER REPORT INQUIRY	UND
MENU CODE	DESCRIPTION	
01	FUND SUMMARY	
02	FUND SUMMARY BY OBJECT	
03	FUND TCC SUMMARY	
04	FUND TCC DETAIL	
05	FUND TCC DETAIL BY OBJECT	
06	FUND TCC DETAIL BY TCC	
07	BALANCE SHEET SUMMARY	
08	BALANCE SHEET DETAIL BY TCC	

ENTER

MENU CODE
FUND
MONTH
FISCAL YEAR

The most often used menu codes are 01, 03, 04, 06, 07, and 08. For each menu, type the menu code, the fund number, the month (01 for January, etc.), and the fiscal year (92 for the fiscal year July 1, 1991 through June 30, 1992.) Press the ENTER KEY. For menus 06 and 08, the user will then have to type in the particular TCC on which the inquiry is being made, and press the ENTER key again.

On the following example, we have inquired on menu 01 for the Controller's Office appropriated fund 3702 for the month of October 1991. This is the screen that appeared:

GL71 FUND SUMMARY FOR THE MONTH OF 10 OF FISCAL YEAR 92 UND
FUND 3702 CONTROLLER'S OFFICE GRANT ID
AGENCY SUB AGENCY

	THIS MONTH	FISCAL YTD	BUDGET	BUDGET BALAN
EQUITY ADJ				
REVENUES	.00	.00	.00	.0
EXPENDITURES	7,611.99	66,848.60	215,106.00	148,257.4
ADDS - TRANSFER	.00	.00	.00	.0
DEDUCT-TRANSFER	.00	.00	.00	.0
PLANT ACQ	.00	.00	.00	.0
COST/GOODS SOLD	.00	.00	.00	.0
NET	7,611.99-	66,848.60-	215,106.00-	148,257.4
OUTSTANDING ENCUMBRANCES		1,917.38		

On the next example, we have inquired also on menu 01, but for a trust account:

GL71 FUND SUMMARY FOR THE MONTH OF 10 OF FISCAL YEAR 92 UND
FUND 2401 CONTROLLER'S OFFICE GRANT ID
AGENCY SUB AGENCY

	FUND BALANCE	BEG FISCAL YEAR		
	THIS MONTH	FISCAL YTD	BUDGET	BUDGET BALAN
EQUITY ADJ	.00	.00		
REVENUES	.00	.00	.00	.0
EXPENDITURES	12,775.51	36,206.49	80,059.00	43,852.5
ADDS - TRANSFER	.00	40,029.50	80,059.00	40,029.5
DEDUCT-TRANSFER	.00	.00	.00	.0
PLANT ACQ	.00	.00	.00	.0
COST/GOODS SOLD	.00	.00	.00	.0
NET	12,775.51-	3,823.01	.00	3,823.0
OUTSTANDING ENCUMBRANCES			.00	
ENDING BALANCES				
FUND BALANCE			6,972.07	
UNENCUMBERED BALANCE			6,972.07	

FINAL PAGE OF REPORT

Next, an inquiry has been made using menu 03, the FUND TCC SUMMARY. This menu will be essentially the same for appropriated and non-appropriated funds.

GL73	FUND TCC SUMMARY FOR THE MONTH 10 OF FISCAL YEAR 92				UND
FUND 3702 CONTROLLER'S OFFICE					GRANT ID
AGENCY	SUB AGENCY				
EXPENSE ACCOUNTS	MONTH TO DATE	FISCAL YTD	BUDGET	BUDGET BALANCE	
309 CONSULTANTS	.00	.00	.00	.00	
311 SALARIES - SUPPORT STAFF	6,716.64	46,982.98	160,306.00	113,323.00	
312 SALARIES - STUDENT ASSISTANTS	294.53	3,582.93	10,420.00	6,837.00	
313 SALARIES - PT SUPPORT STAFF	.00	731.50	4,680.00	3,948.50	
320 SALARIES - OVERTIME	.00	.00	.00	.00	
325 SALARIES - TERMINATE/LEAVE PAY	.00	.00	.00	.00	
390 IN STATE MEALS	.00	.00	.00	.00	
391 OUT OF STATE MEALS	.00	.00	.00	.00	

CONTINUED ON NEXT PAGE

PAGE 1

Remember to use the PF1 key to advance the pages.

Next an inquiry has been made on menu 04, FUND TCC DETAIL. This also will be the same for an appropriated and a non-appropriated fund:

GL74 FUND TCC DETAIL FOR THE MONTH 10 OF FISCAL YEAR 92		UND
FUND 3702 CONTROLLER'S OFFICE		
AGENCY	SUB AGENCY	GRANT ID
		TRANS AMOUNT
		ENCUMB AMOUNT
SALARIES & WAGES-SUPPORT STAFF		
SALARIES - SUPPORT STAFF		
10/15/91 PP 911015	PAYROLL	8,716.64
SALARIES - STUDENT ASSISTANTS		
10/15/91 PP 911015	PAYROLL	294.63
TRAVEL		
TRAVEL-AGENCIES - OUT OF STATE		
10/24/91 AP R 2112S	LUCKE AMERICAN EXP	238.00
10/24/91 AP R 2112S	LUCKE AMERICAN EXP	238.00
COMMUNICATIONS		
TELEPHONE, TELEGRAPH, TELETYPE		
10/16/91 ID 49040A	TELECOMM	21.35
10/16/91 ID 49040A	TELECOMM	21.35
LONG DISTANCE, PHONE CHARGES		
10/17/91 ID 049045	TELECOMM	40.89
10/17/91 ID 049045	TELECOMM	40.89
DATA PROCESSING		
DATA PROCESSING SERVICE		
* NOT POSTED		
CONTINUED ON NEXT PAGE		

PAGE 1

Now we will inquire using menu 06, FUND TCC DETAIL BY TCC (TCC's greater than 100). This enables the user to view all activity in a particular TCC for a particular month. We have inquired on fund 3702 and TCC 465, Duplicating Services:

GL74 FUND TCC DETAIL FOR THE MONTH 10 OF FISCAL YEAR 92		UND
FUND 3702 CONTROLLER'S OFFICE		
AGENCY	SUB AGENCY	GRANT ID
		TRANS AMOUNT
		ENCUMB AMOUNT
OFFICE		
DUPLICATING SERVICES		
10/11/91 ID 148819	DUPLICATING	69.54
10/11/91 ID 148819	DUPLICATING	69.54
10/14/91 ID 148370	LAW LIBRARY	1.90
10/14/91 ID 148370	LAW LIBRARY	1.90

Next, an inquiry has been made using menu 07, BALANCE SHEET SUMMARY. Keep in mind that this menu can only be used for NON-APPROPRIATED FUNDS:

GL75 BALANCE SHEET AS OF 10/31/91 UND
FUND 2401 CONTROLLER'S OFFICE FISCAL YEAR 92 GRANT ID
AGENCY SUB AGENCY

ASSETS		
003 CASH IN BANK		6,972.07
016 ACCOUNTS RECEIVABLE		.00
TOTAL ASSETS		6,972.07
LIABILITIES		
070 ACCOUNTS PAYABLE		.00
071 SALARIES PAYABLE		.00
TOTAL LIABILITIES		.00

We will now inquire on the last menu, 08, BALANCE SHEET DETAIL BY TCC (TCC's less than 100). This menu also can be used only for NON-APPROPRIATED FUNDS. In this case, we have inquired on fund 2401 and the TCC 003, which is cash. This enables us to view all transactions which have affected cash during this particular month

GL76 BALANCE SHEET DETAIL AS OF 10/25/91 UND
FUND 2401 CONTROLLER'S OFFICE FISCAL YEAR 92 GRANT ID
AGENCY SUB AGENCY

003 CASH IN BANK		
10/15/91 PP 911015	PAYROLL	5.0
10/15/91 PP 911015	PAYROLL	9.7
10/15/91 PP 911015	PAYROLL	7.3
10/15/91 PP 911015	PAYROLL	37.4
10/15/91 ID 149920	FEDERAL EXPRESS	10.5
10/16/91 ID 149919	FEDERAL EXP	18.7
10/16/91 RC 196987	JC PENNEY	5.0
10/16/91 ID 149918	FEDERAL EXPRESS	8.0
10/16/91 ID 149921	FEDERAL EXPRESS	45.0
10/16/91 RC 197324	NATL BOARD OF MEDICAL EX	25.0
10/17/91 ID 149830	REFUND REF # 588467	25.0
10/22/91 RC 198510	WEST PUBLISHING CO	13.1
	ENDING BALANCE	6,972.0

* NOT POSTED
FINAL PAGE OF REPORT

PAGE 3

Press PA1, then CLEAR to terminate this session.

GL79 FUNDS AVAILABLE INQUIRY

This inquiry process is extremely useful for appropriated funds,
as demonstrated below.

STEP ONE: Type GL79
 Press the ENTER key
 The following screen will appear:

GL79 FUNDS AVAILABLE INQUIRY DATE.: 10/25/91
FUND NBR: FISCAL YR:

ENTER = DETAIL MAP PF6 = DOCUMENTATION PA1 = TERMINATE

STEP TWO: Type the fund number and fiscal year
 The following screen will appear:

GL79 FUNDS AVAILABLE INQUIRY DATE.: 10/25/91
FUND NBR: 3702 FISCAL YR: 92 FUNDS AVAILABLE CNTRL: BL OVERDRAW: N
FUND TITLE: CONTROLLER'S OFFICE GRANT ID:
AGENCY ID: SUB AGENCY ID:
 ADJUSTED FYTD OUTSTANDING UNENCUMB
 BUDGET EXPENSES ENCUMBRANCE BUDGET BAL
DESCRIPTION
PERSONNEL EXPENSES
SALARIES & WAGES-F
 (301-309)
SALARIES & WAGES-S 175406.00 51297.41 124108.59
 (311-329)
TOTAL PERSONNEL 175406.00 51297.41 124108.59
OPERATING EXPENSE
TRAVEL 1000.00 414.00 586.00
 (388-409)
UTILITIES
 (411-416)
COMMUNICATIONS 16000.00 3512.72 12487.28
PF7 = FOR MENU PF6 = DOCUMENTATION PA1 = TERMINATE
P/ N CONTINUED ON NEXT PAGE PAGE 1

Press the PA1 key to terminate this session.

This inquiry is invaluable as the end of the fiscal year approaches, as it takes the outstanding encumbrances into consideration and gives the unencumbered balance in each object. This screen is updated daily, so a current balance may always be obtained.

GL7B YEAR-TO-DATE FUND TCC DETAIL BY TCC

This inquiry will furnish year-to-date detail information on a particular TCC for a particular fiscal year.

STEP ONE: Type GL7B
 Press the ENTER key
 The following screen will appear:

GL7B YEAR TO DATE FUND TCC DETAIL BY TCC 10/25/91

ENTER:

FUND NUMBER.....:
TCC NUMBER.....: (TCC MUST BE GREATER THAN 100)

OPTIONAL:

FISCAL YEAR.....:
BEGINNING DATE (MM DD)...: ENDING DATE (MM DD)....:

IF FISCAL YEAR IS NOT ENTERED, THE CURRENT FISCAL YEAR IS ASSUMED
IF BEGINNING DATE NOT ENTERED, JULY 1ST IS ASSUMED
IF ENDING DATE IS NOT ENTERED, JUNE 30TH IS ASSUMED

ENTER = CONTINUE PF8 = DOCUMENTATION PA1 = TERMINATE

STEP TWO: Type the fund number and TCC. (As instructed
 above, the current fiscal year is assumed
 unless a different fiscal year is entered.)
 The following information will appear:

GL7B YEAR TO DATE FUND TCC DETAIL BY TCC 10/25/91

FUND 3702 CONTROLLER'S OFFICE	GRANT ID		
TCC NBR 464 PRINTING	OBJECT 402035 OFFICE		
AGENCY	SUB AGENCY	TRANS AMT	ENCUMB AMT
08-27-91 ID 145721	PRINTING	1124.54	-1124.54
08-27-91 ID 145721	PRINTING		1124.54
10-21-91 ID 148854	PRINTING	45.59	-45.59
10-21-91 ID 148854	PRINTING		45.59

* NOT POSTED

ENTER = CONTINUE PF7 = MAIN MENU PF8 = DOCUMENTATION PA1 = TERMINATE

Press PF7 to return to the main GL7B menu.
Press the PA1 key to terminate this session.

G. CHECK RECONCILIATION

CR12 CHECK RECONCILIATION INQUIRY

This inquiry is used to determine if a check has been negotiated, voided, or is still outstanding.

STEP ONE: Obtain the check number by using PC12 or AP90

STEP TWO: Type CR12
Press the ENTER key
The following screen will appear:

CR10 CHECK RECONCILIATION MENU UND

ENTER:

1. CHECK INQUIRY	MENU#/ CHECK#
2. CHECK MAINTENANCE	MENU#/ CHECK#
3. VOID CHECK	MENU#/ CHECK#/ CK-AMT/ VOID DT
MENU#	CHECK# CK AMT: VOID DT:

STEP THREE: Type "1" for the menu selection
Type the check number
Press the ENTER key
The following screen will appear:

CR20 CHECK RECONCILIATION INQUIRY UND

NA-ID NUMBER...: 137915-1 NAME: HOUCHEM BINDERY LTD
CHECK NUMBER...: 982369
CHECK DATE....: 07-26-91 CHECK AMOUNT: 414.11

THIS IS A REPLACEMENT FOR CHECK NUMBER:
THIS CHECK REPLACED BY CHECK NUMBER...:

BANK STATEMENT DATE.....: 08-31-91

CHECK STATUS IS NEGOTIATED

PO NBR	INVOICE NBR	REQ FOR PAY	INVOICE AMT
	3742	666487	414.11

Press the ENTER key to return to the original menu. Press the PA1 or CLEAR key to terminate this session.

UNIVERSITY OF NORTH DAKOTA

TRANSACTION CLASSIFICATION OBJECT GROUPS AND CODES

JULY 1995

PLEASE REFER TO THE CHART BELOW FOR TCC'S WITH A FOOTNOTE SYMBOL

- *** Expenditures must be processed with a Requisition to Purchasing.
- \$** Expenditures may be processed with a RFP/SOS through the Controller's Office or a Requisition to Purchasing.
- &** Expenditures > \$4,000 must be processed with a Requisition to Purchasing.
Expenditures < \$4,000 must be processed with a RFP through the Controller's Office.
- #** Expenditures are subject to 1099 reporting.
- @** Expenditures must be processed on a RFP through Personnel Services.
- C** Designated "COMPUTER CENTER USE ONLY".

TRANSACTION CLASSIFICATION OBJECT GROUPS AND CODES

BUDGET	FOOT	REGULAR	DESCRIPTION (OBJECT GROUP)
TCC	NOTE	TCC	

BALANCE SHEET ACCOUNTS

	ASSETS (10-00-10)
001	Petty Cash
002	Cash on Hand
003	Cash in Bank
011	Investments-Money Market
012	Investments-Pooled
013	Investments
014	Premiums and Discounts on Investments
015	Accrued Interest Receivable
016	Accounts Receivable
017	Interdepartmental Accounts Receivable
018	Tuition & Fees Receivable
019	State Appropriation Receivable
020	Grant/Contract Receivable
025	Notes Receivable
030	Inventories
045	Due from Other Funds
046	Deposits and/or Reserves
047	Prepaid Expenses & Deferred Charges
048	Other Current Assets
050	Land
051	Buildings & Building Improvements
052	Improvements other than Buildings
053	Equipment
054	Library Books
056	Construction in Progress
	CONTRA - ASSETS (10-00-15)
067	Allowance for Depreciation
068	Allowance for Doubtful Accounts
069	Allowance for Doubtful Notes
	LIABILITIES (10-00-20)
070	Accounts Payable
071	Salaries Payable
072	Sales Tax Payable
073	Payroll Withholding Payable
074	Deposits
075	Due to Other Funds
076	Deferred Revenue
077	Bonds Payable
078	Notes Payable
079	Leases Payable
080	Accrued Annual Leave

TRANSACTION CLASSIFICATION OBJECT GROUPS AND CODES

BUDGET TCC	FOOT NOTE	REGULAR TCC	DESCRIPTION (OBJECT GROUP)
-----------------------	----------------------	------------------------	-----------------------------------

081 Special Assessments Payable
082 Advance Payments
083 Interest Payable
084 Retainages Payable
085 Retirement/Tenure Payable

EQUITIES (10-00-30)

090 Fund Balance - RESTRICTED
091 Fund Balance - UNRESTRICTED
092 Fund Balance - DESIGNATED
093 Federal Equity - Loan Funds
094 State Equity - Loan Funds
095 Net Investment in Plant
096 Designated for Working Capital
099 Agency Fund Deposits

REVENUE ACCOUNTS

901 TUITION & FEES - INSTITUTIONAL COLLECTIONS (20-00-02)

101 Regis. Mat & App Fees - Resident
102 Regis. Mat & App Fees - Non-Resident
103 Miscellaneous, Program, Transcript Fees
104 Campus Lab School Fees
110 Graduate Tuition/Fees
112 Graduate Nonresident Tuition

902 TUITION AND FEES - LOCAL (20-00-05)

105 Student Health Fee
106 Graduation Fees
107 Student Activity Fee
108 Extension Course Fee
109 Miscellaneous Fee

903 FEDERAL APPROPRIATION (20-00-10)

111 Federal Appropriation

904 STATE APPROPRIATION (20-00-15)

113 State Appropriation

906 FEDERAL GRANTS AND CONTRACTS (20-00-25)

117 NSF Grants
118 HHS Grants
119 Other Grants
120 Ed Dept Grants

TRANSACTION CLASSIFICATION OBJECT GROUPS AND CODES

BUDGET TCC	FOOT NOTE	REGULAR TCC	DESCRIPTION (OBJECT GROUP)
907			STATE GRANTS AND CONTRACTS (20-00-30)
		121	State Grants and Contracts
908			PRIVATE GRANTS AND CONTRACTS (20-00-35)
		123	Private Grants and Contracts
		124	Gifts
909			ENDOWMENT INCOME (20-00-40)
		127	Endowment Income
910			INSTITUTIONAL SALES & SERVICES (20-00-45)
		131	Sales
		134	Consignment Sales
		135	Services
		136	Supplies
		138	Miscellaneous Income
		139	Rental Income
		140	Fines
		141	Commissions
		142	Parking Tolls
		143	Electricity Income
		144	Gas Income
		145	Advertising
		146	Subscriptions
		147	Service Charges and Service Fees
		148	Loan Late Charges
		149	Data Processing Services
		150	Data Processing Supplies
		151	Microfiche and Microfilm Services
		152	Recreation Programs
		153	Dues and Memberships
		155	Utility Charges
		160	Box Office Sales
		161	Season Ticket Sales
		162	Athletic Single Game Sales
		163	Athletic Season Ticket Sales
		164	Athletic Guarantees
		165	Special Events Sales
		166	Radio/TV Rights
		167	Corporate Sponsorship
		170	Nursery Stock
		171	Residence Hall Room Contracts
		172	Residence Hall Miscellaneous Rent
		173	Family Housing Rent

TRANSACTION CLASSIFICATION OBJECT GROUPS AND CODES

BUDGET TCC	FOOT NOTE	REGULAR TCC	DESCRIPTION (OBJECT GROUP)
		180	Board Contracts
		181	Food Sales
		182	Banquet Sales
		183	Vending Sales
		185	Concession Sales
		187	Dividend Income
		188	Interest Income - Investments
		189	Interest Income
		190	Cash Long
		193	Excess Property Sales
		194	Indirect Cost Reimbursement
		195	Admin Cost Reimbursement
		199	Interdepartmental Sales
911			HOSPITAL SALES & SERVICE (20-00-50)
		202	Sales - Outpatient
		204	Sales - Miscellaneous
		206	Services - Outpatient
		220	Miscellaneous Income
912			REVENUE CONTRA ACCOUNTS (20-00-55)
		235	Sales Discounts
		236	Sales Returns and Allowance
			ADDITIONS (30-00-10)
		240	Gain on Sale of Investments
		242	Fees Pledged to Debt Retirement
		244	Teacher Canc Reimb - Prior 72
		245	Teacher Canc Reimb - After 72
		260	Expenditure Recovery - Prior Year
		261	Other Additions
		270	Expended for Plant Fac - Cur Fund
		271	Expended for Plant Fac - Pft Fund
		272	Plant Additions - Gifts, Grants
		273	Plant Additions - Ret of Indebt
		275	Proceeds of Bond Issue
920			TRANSFERS (30-00-20)
		286	Intrafund Transfer - Nonmandatory
		287	Interfund Transfer - Nonmandatory
		288	Student Activity Fee Transfer
		290	Mandatory Transfer - Prin & Int
		291	Mandatory Transfer - Loan Fund Match
		292	Transfer - Grant/Sch Matching
		295	Endowment Gains Utilized

TRANSACTION CLASSIFICATION OBJECT GROUPS AND CODES

BUDGET TCC	FOOT NOTE	REGULAR TCC	DESCRIPTION (OBJECT GROUP)
---------------	--------------	----------------	----------------------------

EXPENDITURES

950			SALARIES & WAGES - FACULTY (40-10-05)
		301	Salaries - Faculty
		302	Salaries - Lecturers
		303	Salaries - Part Time Faculty
		304	Salaries - Graduate Assistants
		305	Salaries - Scientist/Specialist
		306	Salaries - Professional Support
		307	Research Assistants
		309	Consultants
		310	Other Faculty Payments
951			SALARIES & WAGES - SUPPORT STAFF (40-10-10)
		311	Salaries - Support Staff
		312	Salaries - Student Assistants
		313	Salaries - Part Time Support Staff
		314	Salaries - Technical Support
		315	Consultants
		318	Salaries - Work Study Program
		320	Salaries - Overtime
		323	Employees Awards
		324	Other Staff Pay/Retirement
		325	Salaries - Terminate/Leave Payment
		326	Salaries - Sick Leave Payment
952			SALARIES - SABBATICAL/DEVELOPMENTAL LEAVE (40-10-15)
		331	Salaries - Sabbatical/Developmental Leave
953			FRINGE BENEFITS (40-10-20)
		351	Worker's Compensation
		352	OASIS
		353	Teachers Insurance & Retirement
		354	TIAA & Other Annuity
		355	Health Insurance
		356	Life Insurance
		357	Disability Insurance
		358	Social Security Taxes
		359	State Retirement
		360	Unemployment Compensation
		361	Federal Life Insurance
		362	Federal Health Insurance
		363	Federal Retirement
		364	Teachers Fund for Retirement
		365	Great West Life Retirement
		366	Medicare Taxes
		367	HMO Insurance

TRANSACTION CLASSIFICATION OBJECT GROUPS AND CODES

BUDGET TCC	FOOT NOTE	REGULAR TCC	DESCRIPTION (OBJECT GROUP)
954			TRAVEL (40-20-05)
		388	Meals In-State (Taxable)
		389	Meals Out-of-State (Taxable)
		390	Meals In-State (Non-Taxable)
		391	Meals Out-of-State (Non-Taxable)
		392	Lodging In-State
		393	Lodging Out-of-State
		394	Mileage In-State
		395	Mileage Out-of-State
		396	Air Transportation In-State
		397	Air Transportation Out-of-State
		398	Private Air Mileage
		399	Miscellaneous Travel (Registration Fees)
		400	Travel Agencies Out-of-State
		401	Travel Agencies In-State
		404	Travel & Subsistence - Non-employees
		405	Travel & Field Trip Pay - Students
		406	Motor/Airport Pool
		407	Moving Expenses(Taxable-Requires Presidential Approval)
		409	Moving Expense (Non-Taxable-Requires Presidential Approval)
955			UTILITIES (40-20-10)
		411	Water & Sewer
		412	Gas
		413	Electricity
		414	Coal
		415	Fuel Oil
	*	416	Waste Disposal & Landfill Charges
	*	417	Radioactive/Hazardous Waste Disposal
	*	418	Asbestos Removal & Disposal
956			COMMUNICATIONS (40-20-15)
		421	Postage
		422	Telephone, Telegraph, Teletype
		423	Long Distance, Phone Charges
		424	Fax Charges
957			INSURANCE (40-20-20)
	@	431	Fidelity Bonds
	@	432	Property Insurance
	@	433	Liability Insurance
	@	434	Collision & Comprehensive

TRANSACTION CLASSIFICATION OBJECT GROUPS AND CODES

BUDGET TCC	FOOT NOTE	REGULAR TCC	DESCRIPTION (OBJECT GROUP)
958			DATA PROCESSING (40-20-25)
	C \$ #	441	Equipment Rental
	C \$ #	442	Software Rental
	C \$	443	Data Processing Supplies
	C #	444	Data Processing Service
	* #	445	Microfiche & Microfilm Service
	\$	446	Computer Software Purchases
		447	Computer Center Services
	\$	448	Software Licenses
959			RENTS AND LEASES (40-20-30)
	* #	451	Land Rental
	* #	452	Building Rental
	\$ #	453	Equipment Rental
	* #	454	Aircraft Leases
960			OFFICE (40-20-35)
	\$	461	Office Supplies & Reference Materials
	\$ #	462	Office Equipment Rental
		463	Advertising - TV, Radio, Publications
	*	464	Printing
	*	465	Duplicating Services
		466	Subscriptions
961			REPAIRS (40-20-40)
	\$	471	Repairs
	*	472	Maintenance Contracts
	* #	473	Sublet Services
	\$ #	474	Repairs - Labor
	*	475	Capitalized Repairs
	* #	476	Capitalized Repairs - Labor
962			SUPPLIES (40-20-45)
	\$	481	Supplies
	\$	483	Medical & Veterinarian Supplies
	\$	484	Building & Custodial Supplies
	\$	485	Shop Supplies
	\$	486	Uniforms, Linens, Dry Goods
	\$	487	Seed, Feed, Fertilizer
	\$	488	Motor Fuel & Lubricants
	\$ #	489	Landscape & Grounds Services
	\$	490	Food Service Supplies - Dining Services
	\$	491	Dishes & Utensils
	\$	492	Athletic Supplies
	\$	493	Sanitation Supplies
	\$	495	Expendable Equipment=<\$750

TRANSACTION CLASSIFICATION OBJECT GROUPS AND CODES

BUDGET TCC	FOOT NOTE	REGULAR TCC	DESCRIPTION (OBJECT GROUP)
973			INTERDEPARTMENTAL SUPPLIES (40-20-47)
	\$	496	Uniforms & Linens
	\$	497	Paper Supplies
	\$	498	Dishes & Utensils
	\$	499	Sanitation Supplies
963			FEES (40-20-50)
	#	501	Lecture
	& #	502	Consultant
	#	503	Legal
	#	504	Audit
	#	505	Athletic Officials
	#	506	Conference Speakers
	#	508	Fees
	#	509	Contract Services
		510	Athletic Guarantees
	#	529	Subcontracts
964			INSTRUCTIONAL/RESEARCH (40-20-55)
	\$	511	Book Binding
	\$	512	Books
	\$	513	Publications
		514	Periodicals
	\$	515	Reference Materials
	\$	516	Instructional Supplies
	\$	517	Audio-Visual & Microfilm
	\$	518	Film Rental
	\$	519	Film Purchase
965			GENERAL (40-20-60)
		530	Licenses & Taxes
		531	Dues & Memberships
		532	Freight & Express
		533	Interest Expense
		534	Bank Charges
		535	Cash Short
		536	Bad Debts
	#	537	Miscellaneous Services
		538	Miscellaneous Expense
		539	Collection Expense
		542	Laundry
		543	Depreciation
	#	544	Awards
		545	Banquets & Meetings
		546	Room & Board
	\$	547	Plaques & Trophies
	*	548	Marketing & Promotional Items

TRANSACTION CLASSIFICATION OBJECT GROUPS AND CODES

BUDGET TCC	FOOT NOTE	REGULAR TCC	DESCRIPTION (OBJECT GROUP)
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976			MAJOR EQUIPMENT (40-30-05)
	*	631	Capital Equipment > \$750
	*	636	Fixed Equipment > \$750
967			SCHOLARSHIP & FELLOWSHIP ACCOUNTS (40-50-00)
		651	Scholarships
		652	Stipends
		653	Dependency Allowances
		654	Book Allowances
		659	Reciprocity Waiver - Grad
		660	EOG Awards - Initial
		661	EOG Awards - Renewal
		662	Fellowships
		663	Reciprocity Waiver
		664	Graduate Assistant Waiver
		665	Staff Waiver
		666	National Guard Waiver
		667	State Training School Waiver
		668	Foreign Student Waiver
		669	Other Waiver
		670	WICHE Waiver
		671	Senior Citizen Waiver
968			PLANT ACQUISITION ACCOUNTS (50-00-00)
		701	Land Purchases & Site Preparation
		702	Improvements
		703	Alteration Expense
		704	General Contract
		705	Electrical Contract
		706	Plumbing Contract
		707	Heating & Ventilation Contract
	#	709	Plant Contracts - Labor
	#	710	Architects Fees
		711	Miscellaneous
		715	Capitalized Repairs
		716	Non-capitalized Repairs
	#	717	Non-Capitalized Labor
	\$	718	Expendable Equipment/Plant Funds =<\$750
	*	720	Capital Equipment from Plant Appropriation >\$750
	*	725	Fixed Equipment/Plant Funds
		749	Non-capitalized Items
977			SPECIAL ASSESSMENTS BUDGET (50-00-05)
		712	Special Assessments

TRANSACTION CLASSIFICATION OBJECT GROUPS AND CODES

BUDGET TCC	FOOT NOTE	REGULAR TCC	DESCRIPTION (OBJECT GROUP)
---------------	--------------	----------------	----------------------------

972 **INDIRECT COST EXPENSE (60-00-05)**

750 Indirect Cost
751 Admin Expense 90% Fed
752 Admin Expense 10% State
753 Admin Expense

DEDUCTIONS (60-00-10)

760 Refunds to Grantors
761 Other Deductions
762 Plant & Equipment Disposals
763 Bond Retirement
765 Loan Principal Canceled
766 Teacher Canc Reimb Match-Prior 72
769 Loss on Sale of Investments
770 Grant Reimb-Outside Agencies
771 Other
775 Issuance of Bonds Payable

975 **TRANSFERS (60-00-20)**

786 Intrafund Transfer-Nonmandatory
787 Interfund Transfer-Nonmandatory
790 Mandatory Transfer-Princ & Int
791 Mandatory Transfer-Principal
792 Mandatory Transfer-Interest
793 Mandatory Transfer-Debt Rev Req
795 Mandatory Transfer-Loan Fund Match
799 Submit for Institutional Collections

969 **MERCHANDISE FOR RESALE-FOR INVENTORY DEPTS (70-00-10)**

\$ 801 Purchase for Resale
805 Inventory Adjustment (CONTROLLER'S OFFICE USE ONLY)
• 810 Food Products
• 811 Meat Products
• 812 Produce Products
• 813 Bakery Products
• 814 Dairy Products
• 815 Milk Products
• 816 Ice Cream Products
835 Freight-In
\$ 836 Formula

**UNIVERSITY OF NORTH DAKOTA
REQUEST FOR PAYMENT
(DO NOT USE FOR PAYROLL PAYMENTS)**

REFERENCE NO. **834876**

NAID, if known

VENDOR NAID

VENDOR INVOICE NO.

MO DAY YR
VENDOR INVOICE DATE

CUSTOMER NUMBER

VENDOR NAME AND ADDRESS

Complete vendor name; NO initials/abbreviations

NAME or Mrs. John Doe

Remit address as shown on invoice; for

ADDRESS

individuals, Home address is required

CITY

Social Security for individuals; Federal ID for Companies

SOCIAL SECURITY NUMBER (required for individuals) OR FEDERAL ID. NUMBER

SPECIAL INSTRUCTIONS:

☐ HOLD CHECK-CALL☐ CHECK NEEDED BY

If payment is to be sent to a different address than the vendor address, indicate REMIT TO (if different than vendor address) here.

QUANTITY	DESCRIPTION OF GOODS OR SERVICES	UNIT PRICE	AMOUNT
	A brief description of the item ordered or service for which payment is to be made. For a service, indicate dates of service.		
		TOTAL →	Amount

I/WE ACKNOWLEDGE RECEIPT OF THE ABOVE STATED GOODS AND/OR SERVICES AND
REQUEST THAT PAYMENT BE MADE IN THE AMOUNT AND MANNER INDICATED.

FUND	DEPT	TCC	PROJ	AMOUNT
FUND	DEPT	TCC	PROJECT	AMOUNT

Department Name and Number

REQUESTING DEPARTMENT NAME AND NUMBER

MERCHANDISE RECEIVED BY SIGNATURE DATE
--

Departmental signature in ink

DEPARTMENT HEAD SIGNATURE

DATE

ADDITIONAL APPROVAL (if Required)

DATE

FOR CONTROLLER'S USE ONLY

PURCHASE ORDER NO.	CHECK NO.	CHECK DATE	AUDITED	G & C	CONTROLLER'S	PROCESS DATE

834876

CONTROLLER'S OFFICE

THE GREAT LIBRARY

MONTHS October 19 91 DEPARTMENT Controller's Office

NAME: P. Smith
 ADDRESS: 204 E. 4th St.
 CITY: Grand Forks

36794
BODAS, MICHAEL
991-36-2788

CITY		GRAND FORKS		STATE		GRAND FORKS		GRAND FORKS		GRAND FORKS		GRAND FORKS		GRAND FORKS	
0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5
POINTS COVERED BY TRAVEL		POINTS COVERED BY TRAVEL		POINTS COVERED BY TRAVEL		POINTS COVERED BY TRAVEL		POINTS COVERED BY TRAVEL		POINTS COVERED BY TRAVEL		POINTS COVERED BY TRAVEL		POINTS COVERED BY TRAVEL	
(Includes Departure & Return Times)		(Includes Departure & Return Times)		(Includes Departure & Return Times)		(Includes Departure & Return Times)		(Includes Departure & Return Times)		(Includes Departure & Return Times)		(Includes Departure & Return Times)		(Includes Departure & Return Times)	
1	GF-Fargo-GF	6AM-8PM	17.00												
2															
3															
4	Grand Forks-Bismarck	7AM	13.50	35.00	275										
5			17.00	35.00											
6	Bismarck-Grand Forks	10PM	17.00		270										
7															
8															
9															
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20	Grand Forks-Ward, CO	3PM								15.00	190.00	278.00	10.00		
21										4.00	26.00	190.00		157.00*	
22	Ward, CO-Grand Forks	5PM								15.00			10.00		
23															
24															
25															
26															
27	GF-Kansas City, MO	11AM				1500				24.00	195.00				
28										4.00	26.00	195.00		125.00*	
29	Kansas City, MO-GF	8:30PM				1500				4.00	26.00				
30															
31	GF-Jamestown-GF	6AM-5PM	5.00										400.00		
TOTALS			22.00	47.50	70.00	540	3000	12.00	132.00	370.00	378.00	102.00			

Oct 1 Administer a poll
Oct 4-6 Look at conference sites
Oct 20-22 Dept of Education Meeting
Oct 27-29 Meet with Fall 1991 IVH Faculty
Oct 31 Meet regarding Comt. Educ. Procedures

* \$7.00-Parking
\$50.00-Car Rental
** \$25.00 Registration Fee

FUND	DEPARTMENT	TOC	PROJECT	AMOUNT
3000	1000	388		22.00
3000	1000	390		43.50
3000	1000	392		70.00
3000	1000	394		126.00
3000	1000	396		100.00
2400	0001	389		6.00
2400	0001	391		56.00
2400	0001	393		180.00
2400	0001	395		278.00
2400	0001	399		27.00
4500	0010	395		550.00
4500	0010	389		1.00
4500	0010	391		16.00
4500	0010	393		190.00
4500	0010	399		25.00

WHITE - CONTROLLER'S BLUE - DEMANDING DEPARTMENT

THIS VOUCHER IS USED FOR ALL FUNDS.

Revised Information

- Social Security Number
- K&N Number
- Departure and return times (In-state & Out-of-state)
- Original Receipts attached for:
 - Airline Tickets
 - Lodging
 - Registration Fees
 - Any taxi fare over \$10.00
 - Car Rental
 - Any miscellaneous expenses over \$2.00
- Purpose of travel for each trip
- Signature of person asking for reimbursement
- Departmental Approval
- TCC Breakdown
- TCC Breakdown must equal amount authorized

UNIVERSITY OF NORTH DAKOTA OUT-OF-STATE TRAVEL AUTHORIZATION

Must be submitted to the Controller's Office prior to departure or purchase/release of ticket.

Name John Doe
 Department Controller's Office
 P.O. Box # 8356
 Social Security # XX-XX-XXXX
 NAID # 12345
 Destination Minneapolis, MN
 Departure/Return Dates January 4-7, 1994

This document constitutes preliminary authorization. Actual reimbursement will be based on compliance with applicable policies.

For Controller's Use Only

Actual Ticket Amount \$

Travel Agency (if applicable) If known, Name of local travel agency and amount

Name of Meeting/Purpose of Trip (Be specific: no acronyms.)

Attend IBM (International Business Machines) Conference and to present paper

Funding¹

FUND TITLE	FUND #	DEPT. #	PROJECT #	AMOUNT
Controllers Office	XXXX	XXXX	XXXX	Amount
	XXXX	XXXX	XXXX	Amount

The total amount authorized amount is the maximum TOTAL AMOUNT AUTHORIZED amount to be reimbursed on a Travel Expense Voucher.

\$ Amount

Approvals

Additional Approval (if required)²

Date

Original Signature Required

Signature is stamped by the Controller's Office

Departmental Approval

Date

President

OPTIONAL SECTION

For Departmental Use Only

Estimated Costs:

Transportation

Lodging (unless otherwise specified)

Meals

Registration

Rental Car Rental

Other: Parking, Per Diem, etc.

Total Estimated Costs

Transportation Savings

Loss

Additional Lodging

Additional Meals

Additional Other

Net Savings

Personal Days

From

To

Method of Travel:

☐ Commercial Plane

☐ Other Plane

☐ Charter Plane

☐ State Car

☐ Personal Car

☐ Bus

☐ Train

☐ Other

AMENDMENT SECTION

Used for changes only

☐ Total Amount Authorized (Revised Amount \$)

☐ Date (Revised Dates)

Fund #	Dept. #	Project #	Amount
			\$
			\$
			\$
			\$
			\$

AMENDMENT APPROVALS

Original signature required. Signature for amendments only

Departmental Approval

Date

Additional Approval (if required)²

Date

Signature is stamped by the Controller's Office
 President

¹ All Office of Institutional Development (OID) funding requests must be authorized by OID. Alumni Funding must be authorized by the Alumni Office.

² Dean approval is required for academic units. Vice President approval required for interdepartmental travel.

³ Original receipts required for all reimbursements except meals, or taxi fares \$10 or less and miscellaneous expenses under 12. Credit card receipts are not acceptable.

⁴ To complete the Amendment Section, make photocopy of previous authorization. Obtain original signatures in Amendment Section and forward to the Controller's Office, Box 8356.

UNIVERSITY OF NORTH DAKOTA

FOOD PURCHASE APPROVAL

DEPARTMENT	ACTIVITY DATE	ACTIVITY LOCATION	CHARGE TO FUND-DEPT.-TCC-PROJECT (See Note #1)	AMOUNT

Please indicate the type of function and the meal(s) involved:

☐ Recruiting faculty and staff.	☐ Breakfast
☐ Business meal-Attendance required or approved by supervisor.	☐ Lunch
☐ Entertaining guests.	☐ Dinner
☐ Retreats-must have written approval from the President.	☐ Morning Break
☐ Entertainment-receptions, employee recognition functions, and other institutional functions.	☐ Afternoon Break
☐ Other	

NON-UNIVERSITY GUESTS	UNIVERSITY STAFF/POSITION
Can attach list if more room is needed	

Departmental signature(s) in ink	APPROVED/DISAPPROVED
Requested By _____ Date _____	G & C Approval _____ Accounts Payable Manager _____ Date _____

Food Purchase Approval Forms are required for all charges through Dining Services, for all charges to Grant & Contract funds, and to receive prior approval for out-of-state rate for recruiting and business meals. Please refer to the administrative manual for the policy and procedures regarding food purchases. Alumni and Agency Funds are exempt from this procedure.

NOTE #1

PLEASE NOTE THAT

Significant restrictions exist on grant and contract funds that may preclude their use for food purchases. An explanation linking the food purchase to the purpose of the grant award should accompany this form.

**UNIVERSITY OF NORTH DAKOTA
BUDGET TRANSFER FORM**

For Accounting Office
Use Only

Reference No. _____

Transaction Date

Mo / Day / Yr

Process Date

Mo / Day / Yr

IMPORTANT: DO NOT COMBINE TRUST AND APPROPRIATION FUNDS ON THE SAME FORM.

FUND	DEPT.	TCC	PROJ.	DESCRIPTION	BUDGET INCREASE	BUDGET DECREASE
Enter fund-dept-tcc (900 budget TCC)				Brief description	Enter amount in appropriate column.	
				ENTRY TOTALS →		

Explanation:

Brief explanation.

****NOTE**** On appropriated funds you cannot transfer between salaries, operating expenses and equipment. Budget transfers can not be made between appropriated and non-appropriated funds.

APPROVAL:

Departmental signature and then forward to Controller's Office.
DEAN OR DEPARTMENT HEAD DATE

BUDGET DIRECTOR

DATE

UNIVERSITY OF NORTH DAKOTA

BUSINESS OFFICE
UNIVERSITY STATION - P.O. BOX 8203
GRAND FORKS, NORTH DAKOTA 58202
PHONE: 701/777-3811

FORWARD YELLOW COPY TO THE CONTROLLER'S
OFFICE

ACCOUNTS RECEIVABLE

CHARGES
129151

COMPLETE CUSTOMER NAME AND ADDRESS

Complete customer name and address

ID NO. NAID# if known

SOC. SEC. NO. For individuals

TRANSACTION DATE

DUE DATE (IF APPLICABLE)

FUND	FUND DEPT	FUND PROJ	FUND ACCT	EXPLANATION	AMOUNT	REFERENCE NO.
Fund-dept-tcc-project #				Brief description		
(Appropriated funds may not be used)						

TOTAL

DIRECT ALL INQUIRIES TO

DEPARTMENT	APPROVED BY SIGNATURE	DATE
Name of originating department	Departmental signature in ink	

COMMENTS

DEPARTMENT COPY

AN EQUAL OPPORTUNITY EMPLOYER

UNIVERSITY OF NORTH DAKOTA

BUSINESS OFFICE
UNIVERSITY STATION - P.O. BOX 8373
GRAND FORKS, NORTH DAKOTA 58202-8373
PHONE: 701/777-3911

FORWARD YELLOW COPY TO THE CONTROLLER'S
OFFICE

ACCOUNTS RECEIVABLE

CREDIT MEMO

49213

CUSTOMER NAME AND ADDRESS
Complete customer name and address

ID NO. NAID # if known
SOC. SEC. NO. For individuals
TRANSACTION DATE
DUE DATE (IF APPLICABLE)

FUND	DEPT	TCC	PROJ.	EXPLANATION	AMOUNT	REFERENCE NO.
Fund-dept-tcc-project #				Brief description		
(Appropriated funds may not be used)						
TOTAL						

DIRECT ALL INQUIRIES TO		
DEPARTMENT	AUTHORIZED SIGNATURE	DATE
Name of originating department	Departmental signature in ink	

(All credit memo's must have 2 signatures from the department)

COMMENTS:

ACCOUNTING COPY

AN EQUAL OPPORTUNITY EMPLOYER

CONTROLLER'S OFFICE
P.O. BOX 8356
GRAND FORKS, NORTH DAKOTA 58202-8356
(701) 777-2771
FAX (701) 777-2504

DATE: June 20, 1995

TO: Deans and Department Heads

FROM: Peggy Lucke, Controller
P. Lucke

RE: ADMINISTRATIVE MANUAL UPDATE

Please update your departmental copy of the University Administrative Manual with the following:

DUES AND MEMBERSHIPS

Whenever possible, membership in a business, technical, or professional organization should be carried in the name of the University and not of an individual. This approach promotes transferability of the benefits of the membership. Membership in the name of an individual will be allowed if the institutional membership is not available or if it can be demonstrated that the individual membership is cost effective.

Memberships are an unallowable cost on federal grants or contracts unless they are specifically identified and approved in the budget (contact Budget and Grants Administration). Memberships in community organizations or social clubs are an unallowable cost on any source of funds.

Payment of individual memberships, with the approval of the departmental chairperson, may be made from appropriated or local funds, including indirect cost rebate funds.

Departments are encouraged to review all memberships prior to renewal to insure there is a proven benefit for the University to justify the expenditure of funds.

OUT-OF-STATE TRAVEL REGULATIONS

PERSONAL VEHICLE:

A traveler will be reimbursed 18¢ for each mile actually traveled on business. If more than one University employee travels in the same vehicle, 20¢ per mile will be allowed. Mileage allowances are assumed to be total operating costs of vehicles and NO additional amounts will be paid for such items as traffic tickets, toll fees, or any other normal recurring automobile expenses.

MEALS:

Out-of-State meal reimbursement rates are revised quarterly. Dependent upon the location, the rates vary as follows:

		<u>\$26/day</u>	<u>\$30/day</u>	<u>\$34/day</u>	<u>\$38/day</u>
1st quarter	7:01 AM-Noon	\$ 5.20	\$ 6.00	\$ 6.80	\$ 7.60
2nd quarter	Noon-6PM	\$ 7.80	\$ 9.00	\$ 10.20	\$ 11.40
3rd quarter	6PM-Midnight	\$ 13.00	\$ 15.00	\$ 17.00	\$ 19.00

Out-of-state meals are taxable only if there is not an overnight stay.

Departure must occur before the beginning of each period in order to receive reimbursement. The traveler must be away from his/her normal working and living residence for at least 4 hours to receive reimbursement. When a registration fee includes meals, meal allowances will not be reimbursed.

LODGING:

Actual lodging expenses will be reimbursed as long as the original lodging receipt is submitted. A credit card receipt is NOT acceptable. Departure must occur before midnight. When traveling with a companion, the employee must have the lodging establishment clearly certify the room rate on the lodging receipt for a single person and only that amount may be claimed.

Shared accommodations--If two employees are sharing lodging accommodations, the actual cost of the room must be split evenly. (Many hotels will split the cost for you on two receipts.)

RENTAL CAR:

The University has set up an agreement with an insurance carrier (ND Insurance Reserve Fund) to provide the insurance required by car rental agencies, although only in limited locations. The coverage territory includes the United States, the territories and possessions of the United States, Puerto Rico and Canada.

If an employee accepts the insurance coverage offered by the rental car company for the covered territory, they will not be reimbursed for the insurance cost. When coverage is not provided by the University, the traveler should accept the car rental insurance required by the location. This will be reimbursed on the Travel Expense Voucher.

The University will reimburse an employee for a car rental if the employee used an aircraft to get to his/her destination, and if the use of the vehicle is sufficient to justify that mode of travel instead of a taxi. Car rental from Grand Forks is not allowed. An original receipt is required; credit card receipts are not accepted.

REGISTRATION FEES:

Registration fees not prepaid by the University will be reimbursed. An original receipt must be provided. Credit card receipts are not accepted.

TAXI:

A receipt for taxi expenses exceeding \$10.00 is required. Taxi's to/from Grand Forks Airport are now reimbursable. A taxi and a rental car cannot both be used in the destination city.

PARKING FEES:

Parking fees may be claimed with a receipt for personal, state, and rental vehicles at airports, hotels/motels, and other parking establishments while on university business.

AIRPORT PARKING:

Please inform the Travel Coordinator if you intend to park overnight at the airport University lot. Necessary information will be obtained from you to release an access card. There are two access cards available in the EERC Accounting Office on a "first come, first serve" basis; otherwise, an access card can be picked up by the traveler at the Traffic Division or the Memorial Union. The south A-Zone parking area is designated for overnight parking.

The University will reimburse travelers for parking at the Grand Forks Airport parking lot. A receipt must be provided.

TELEPHONE CALLS:

Business calls can be reimbursed. Employees will be reimbursed for telephone calls to their residence, while in travel status. Reimbursement will be limited to 1 call per 72 hours of travel and up to a maximum amount of \$3.00 per call. The charge MUST appear on the receipt submitted for lodging or on a separate receipt.

MISCELLANEOUS EXPENSES:

Miscellaneous expenses must be justified and have a receipt if over \$2.00. Expenses such as valet, laundry, tips, or any other personal expenses are NOT reimbursable. Photocopies can now be reimbursed on the Travel Expense Voucher. Notarized statements are no longer required for lost or unobtainable receipts less than \$25.00.

RECEIPTS TO SUBMIT FOR REIMBURSEMENT:

Airline ticket passenger receipt, lodging receipt, taxi receipt, rental car receipt, parking receipts, miscellaneous receipts. Gas credit card receipts are accepted.

IN-STATE TRAVEL REGULATIONS

PERSONAL VEHICLE:

A traveler will be reimbursed .20 for each mile actually traveled on business. Mileage allowances are assumed to be total operating costs of vehicles and no additional amounts will be paid for such items as traffic tickets, toll fees, or any other normal recurring automobile expenses.

MEALS:

The maximum expense allowance for each quarter of any twenty-four-hour period is as follows: (NOTE: Receipts are not required)

1.	First quarter, 6:00 AM to 12:00 Noon:	\$3.50
2.	Second quarter, 12:00 to 6:00 PM:	\$5.00
3.	Third quarter, 6:00 PM to 12:00 Midnight:	\$8.50

Departure must occur before the beginning of each period in order to receive reimbursement. The traveler must be away from his/her normal working and living residence for at least 4 hours to receive reimbursement. When a prepaid registration fee includes meals, meal allowances will not be credited.

LODGING:

The maximum hotel reimbursement "in state" is \$35.00. Only receipts from lodging establishments will be accepted; original receipts are required. Credit card receipts are not accepted.

RENTAL CAR:

The University will reimburse an employee for a car rental in North Dakota if the employee used an aircraft to get to his/her destination, and if the use of the vehicle is sufficient to justify that mode of travel instead of a taxi. Car rental from Grand Forks is not allowed. An original receipt is required; credit card receipts are not accepted.

The University has set up an agreement with our insurance carrier to provide all the insurance required by car rental agencies. The insurance is provided through the ND Insurance Reserve Fund.

REGISTRATION FEES:

Registration fees not prepaid by the University will be reimbursed. An original receipt must be provided. Credit card receipts are not accepted.

TAXI:

A receipt for taxi expenses exceeding \$10.00 is required. (NOTE: Taxi's to/from Grand Forks Airport are now reimbursable. A taxi and a rental car cannot both be used in the destination city.

PARKING FEES:

Parking fees may be claimed with a receipt for personal, state, and rental vehicles at airports, hotels/motels, and other parking establishments while on university business.

TELEPHONE CALLS:

Business calls can be reimbursed. Employees will be reimbursed for telephone calls to their residence, while in travel status. Reimbursement will be limited to 1 call per 3 days of travel and up to a maximum amount of \$3.00 per call. The charge MUST appear on the receipt submitted for lodging or on a separate receipt.

MISCELLANEOUS EXPENSES:

Miscellaneous expenses must be justified and have a receipt if over \$2.00. Expenses such as valet, laundry, tips, or any other personal expenses are NOT reimbursable. Notarized statements are no longer required for lost or unobtainable receipts less than \$25.00.

RECEIPTS TO SAVE & TURN IN:

Airline ticket passenger receipt, lodging receipt, taxi receipt, rental car receipt, parking receipts, miscellaneous receipts (NOTE: Gas credit card receipts are acceptable).

If you have any questions or comments, please contact EERC Accounting at (701) 777-4476.

UNIVERSITY OF NORTH DAKOTA

CONTROLLER'S OFFICE

MEMO

DATE: July 5, 1994
TO: Department Heads
FROM: Lisa Heher, [✓]Cash & Investments Mgr.
RE: PER DIEM RATES FOR ALASKA, HAWAII, CANADA & INTERNATIONAL

Effective July 1, 1994, the following per diem rates will apply for all travel on or after July 1, 1994:

Alaska	\$40
Hawaii	\$40
Canada	\$34
International	\$55

The breakdown by quarter is as follows:

	<u>\$34/day</u>	<u>\$40/day</u>	<u>\$55/day</u>
1st quarter, 6AM-Noon	\$ 6.80	\$ 8.00	\$ 11.00
2nd quarter, Noon-6PM	\$ 10.20	\$ 12.00	\$ 16.30
3rd quarter, 6PM-Midnight	\$ 17.00	\$ 20.00	\$ 27.50

These rates will be subject to tax if they exceed the United States General Services Administration (GSA) Rate for the city or if there is not an overnight stay.

Please route this information to the appropriate personnel within your department.

If you have any questions, please call Bonnie Nerby at #7-2966.

**Energy &
Environmental
Research
Center**

APPENDIX D

UND FINANCIAL REPORT FOR FY94

*Energy &
Environmental
Research
Center*

APPENDIX E

**UND PURCHASING AND PROPERTY
MANAGEMENT PROCEDURES**

PURCHASING DEPARTMENT

Scope and Responsibilities — The Purchasing Department of the University is the centralized agency vested with the responsibility of obtaining maximum values from expenditures of University and University-administered funds, in the procurement of equipment, supplies and services rendered by outside agencies. Purchases are made on the basis of competitive prices, considering quality, suitability and service.

The Purchasing Department is primarily a service department. It was created to assist all departments and agencies in procuring their needs with the best selection and at the lowest ultimate cost; and to provide counsel and advice for departments, as well as to expedite the mechanics of procurement.

Purchasing Policy — University appropriations will of necessity curtail some of the functions of the Purchasing Department. Among other things that must be curtailed is the placement of long distance phone calls and sending a facsimile both for ordering material and following up orders already placed. This is not to imply that this function will be absorbed by requisitioning departments, but that departments must anticipate their requirements further in advance.

Purchasing Procedure for Supplies and Equipment

1. The institutional purchasing department or designated individual is responsible for the preparation and enforcement of institutional purchasing policies.
2. All policies shall be within the following guidelines:
 - a. Items under \$4,000 shall be purchased at the discretion of the Purchasing Department.
 - b. Items between \$4,001 and \$10,000 shall be purchased by negotiations, telephone or informal written quotations or proposals by the purchasing department. When feasible more than one vendor should be requested to submit prices to insure appropriate competition.
 - c. Items over \$10,000 must be purchased from formal bids. As many sources as possible should be solicited, and a minimum of two (2) weeks should be allowed for accepting bids. The person in charge of purchasing shall have the discretion to shorten the two week time period, when in that person's judgment it would be advantageous to do so.

Approval from the North Dakota University System

1. Leases \$10,000 and over require the Chancellor's approval.

Construction, Renovation and Remodeling — The North Dakota University System Approval

1. Items under \$50,000 require only institutional approval.
2. Items in excess of \$50,000 must have Board approval on an "A" agenda.

The State of North Dakota Purchasing Division has set up annual contracts on many commodities. These contracts will be used at all times when it is advantageous to do so.

SOS — Speed Order System — This order system has been developed to meet the small day-to-day needs of departments. Pre-numbered SOS/RFP forms are available in the Controller's Office.

1. SOS's are valid only up to \$500.
2. All fund numbers can be used on SOS orders.
3. The SOS number must appear on the vendor invoice.
4. SOS numbers are valid for partial shipment and multiple invoices provided the total amount does not exceed \$500.

5. To process payment of an SOS number, the department must complete the SOS/RFP form with signatures etc. Submit SOS request for payment form and the customer copy of the vendor invoice to the Controller's Office for payment.

Walk Through Orders — The same procedure as a regular purchase is used except that they are processed the same day at 10 a.m. and 2 p.m.

Blanket Orders — Blanket Orders are designed for a vendor with whom a department has repetitive purchases either daily, weekly or monthly. However, before a Blanket Order is established, request approval of the Purchasing Department. Once a Blanket Order is created, payment of the invoices is handled by the department. A request for payment is prepared, the invoice is attached and forwarded to the Controller Office for payment.

Unauthorized Orders — Only the purchasing agent, or an authorized representative, are authorized to commit the University for goods and services. Commitments by any other member of the faculty or staff are not binding on the University, and vendor's invoices covering these commitments will not be honored. If a department deviates from Purchasing policy by contracting the materials and then forwarding a confirming requisition to the Purchasing Department, the requisition will not be honored and the person making the commitment will be held personally responsible for the incurred indebtedness. Receiving premiums from a vendor on a purchase order is against University and State of North Dakota Purchasing policies. When the Purchasing Department receives such requisitions, they will be returned to the issuing department as an unauthorized purchase.

Specifications — The Purchasing Department will not change specifications or make substitutions in quality, without contacting the department concerned.

Stores Stocks — A large stock of materials in the office supply lines is maintained at the Bookstore. Whenever possible this material should be utilized by departments and may be ordered directly from the Bookstore.

Personal Purchases — Personal purchases through the Purchasing Department or in the name of the University are not authorized.

New Personnel — Contact the Purchasing Department when in doubt as to procedure. Personal instruction will be given in handling of orders or problems. This precaution will prevent errors and mix-ups due to improper handling.

Rental or Lease Equipment — Equipment which is furnished for University use, by outside agencies on a rental or lease basis, whether for a definite or indefinite period, will be covered by a formal purchase order or contract number. In the case of leased equipment, the department concerned will clearly make the requisition "Lease Equipment" and specify whether it is a new or renewal lease.

Leasing Policy:

1. All leases, whether for equipment, fixtures or real property (land or buildings), must be approved by the President or Chief Financial Officer of the institution. The President or Chief Financial Officer are the only individuals authorized to sign a lease for the institution, and any lease arrangement made without the approval of the President or Chief Financial Officer will not be binding on the institution.
2. All leases shall be on file in the Purchasing Department and the benefited department.
3. All real property leases and any equipment of fixture lease shall be obtained under the Purchasing policy of the State Board of Higher Education.

Purchase Order Procedures — All purchase of supplies, materials and equipment must utilize the University purchasing procedures either using a requisition or speed order system number. All requisitions are to be initiated and signed by the department desiring the material or service. They are made on a standard form, available in the Purchasing Department. These forms are made up in triplicate.

Regular Order — Through this procedure the department completes a purchase requisition and submits it to Purchasing. A Purchase Order is then created and sent to the vendor. The vendor delivers the materials ordered to Central Receiving who in turn delivers the materials to the department along with a *Receiving Report*. The department must sign the Receiving Report and return it to Central Receiving in order for payment to occur. Central

Receiving forwards the blue copy of the Receiving Report and the vendor's invoice to the Controller's Office for payment.

The requisition information will be keyed in to the computer on a CRT machine. All notations i.e. suggested Vendors for bidding, handling requests, or general instructions to the Purchasing Department should be given on an additional piece of paper and stapled to the requisition for instruction to the Purchasing Department only.

The requisition is to be filled out by the using department giving the following information: Department number, fund number, TCC and project number if applicable, vendor and complete description of merchandise. The Yellow copy when properly approved by the Dean or Administrative Head, should be forwarded to the Purchasing Department to be processed. The Blue copy is to be retained by the Dean or Administrative Head for future reference. The White copy is the departmental file copy.

After a requisition is received by the Purchasing Department, specifications are edited for accuracy and suitability. A vendor is selected and the price determined, either on the basis of competitive prices through bids or by selection from the vendors file maintained by the Purchasing Department.

Rule: Never initiate a second requisition for the same order unless the first requisition has been retrieved and destroyed.

Confirmation Order — This procedure is utilized when a department wants to pay for services they have already received without utilizing a regular purchase order; or to reimburse individuals for materials they have purchased with their own funds; or to make a payment. The department must complete a purchase requisition indicating it is a confirmation, and a request for payment form. The requisition, request for payment, and the vendor's invoice should all be submitted together to Purchasing. This procedure is not to be used for supplies or equipment.

Purchase Order — Distribution of the three-part purchase order is as follows:

- White copy -- sent to the Vendor
- Yellow copy -- Purchasing copy
- Pink copy -- Department copy

Receiving Report — The Pink and Blue copies are sent to Central Receiving where they are used to facilitate delivery of merchandise. When the merchandise is received the Blue copy is sent to the department with the package for the department's signature if the merchandise is in order. The department then sends the signed Blue copy back to Central Receiving who attaches the vendor invoice. Central Receiving then forwards the Blue copy and the invoice to the Controller's Office for payment.

Note: Please release receiving copy promptly unless a problem exists, in which case adjustments should be taken care of before final release is made. Release for partial shipments is encouraged where large orders or large volumes of cash are involved.

Purchase Order Changes — Changes in price specifications or substitutions and cancellations or change in name of vendor, after the purchase order has been issued are to be handled by the Purchasing Department. The Purchasing Department will officially notify the vendor, Central Receiving and the Department (of such change). When a department wishes to make a change on a purchase order they must send a memorandum to Purchasing, the purchase order will then be modified.

Cancellations — When a company cannot ship or the department wishes to cancel an order for any reason, the Purchasing Department must always be notified so an official cancellation can be issued to remove the encumbrance of funds in the Controller's Office and close the records on the order (or part order) with the company and all departments. Reason for cancellation must always be supplied. Each entry on the Purchase Order must be removed by either payment or cancellation.

Donation Receipt — When an individual or a vendor makes a donation to the campus such as furniture or equipment etc., a donation receipt is available from the Purchasing Department.

Sales Representative — Interview time will be held to a minimum. Sales representatives will be sent to other departments only on their specific requests. The Purchasing Department should be notified of any departmental contacts with salesmen or vendors.

Vendors — The selection of sources and vendors is the responsibility of the Purchasing Department. Sources may be suggested by departments and will be used whenever it is economically feasible.

Central Receiving — All merchandise delivered on a purchase order will be delivered to Central Receiving. Vendors and freight carriers have been advised to deliver to Central Receiving. Special provisions may be made for delivery of delicate or unusual items.

When goods are received, the shipment is checked against the purchase order for correct quantities and carton damage. Obvious freight damaged merchandise will not be delivered to the ordering department. The department is notified and the freight damage claim will be handled by Central Receiving.

Once checked, the shipment is delivered to the originating department accompanied with a receiving report. Departments are to promptly inspect merchandise. Report shortages, damage or other problems to Central Receiving. If merchandise is received in good condition, indicate on the receiving report, sign and return to Central Receiving. Central Receiving then attaches the invoice and sends to the Controller's Office for payment.

Before equipment with a value of \$500 or more is delivered to the department, Inventory Control will attach a University inventory decal to maintain departmental inventory records.

Invoices reaching your office directly from a vendor corresponding to a purchase order must be forwarded to Central Receiving for payment purposes.

It is necessary to notify Central Receiving of receipt of shipment in the following instances:

1. When merchandise is picked up by a department.
2. If materials reach your department through U.S. mail.
3. Vendor makes delivery direct to department.

Upon notification of the three reasons above, the receiving report will be sent to the department for approval.

Trade-ins/Transfers/Deletions — It is the department's responsibility to keep Inventory Control informed on all changes in their equipment inventory including disposal and or moving of equipment, trades, transfers to another department, deletions, etc. Equipment transfer and disposition forms are available in Purchasing and Inventory Control.

Surplus Property — This division of Purchasing is maintained for the purpose of redistributing and disposing of all unwanted equipment, supplies, and material.

1. To provide a system of managing property no longer needed by a department and making the property available to campus or state departments that can utilize it.
2. To provide a means of disposal by public sale or scrap of any property that cannot be utilized by campus or state departments.
3. To provide a source to property off campus through screening by the surplus manager, i.e., North Dakota State Surplus.
4. To provide an in-stock source of select items commonly used by all departments, i.e., chair mats, office chairs, files and calculators.

The surplus manager is responsible for the operation of surplus property and is supervised by the Director of Purchasing or his/her designated person.

Procedure:

All equipment, supplies and material not utilized by a department will be turned over to surplus property. These items will be processed through the surplus property system in the following manner.

1. All items are to be submitted on a Surplus Property form. Forms are available from Central Receiving, telephone 7-8125.

2. Do not remove any inventory tags. Do not call Plant Services to pick up the items.
3. Send completed surplus property forms to Central Receiving, Box 9012. Surplus Property will contact Plant Services for pick up.
4. All items received into surplus property that have inventory tags attached will have the surplus property form forwarded to Inventory Control by Surplus Property personnel.
5. Incoming items will be inspected by the surplus manager to determine if the item has utility or not. Utility is defined as being useful to the campus, state or to the public.

Campus concerns the University of North Dakota and all its remote locations.

State concerns all institutions of higher education, state institutions, departments and all political subdivisions.

Public concerns private business and individuals.

Public Sale:

A public sale will be held whenever 100 or more items have been accumulated. Sales will be advertised in the *University Letter* and local newspaper, giving date, location of sale and general categories of items. Bids will be submitted on the bid form provided, and deposited in a sealed container. Each item will be awarded to the highest bidder.

Sales receipts will be deposited directly into appropriate departmental accounts, after expenses. The amount deposited into departmental accounts is determined by using the percentage arrived at when dividing the expenses by the gross sales and applying it to the gross sales for each department. The TCC used when depositing these funds is 193. If items have inventory tags attached, the number will be researched to determine the fund number from which it was purchased. The fund number will be checked for validity.

Special Sale:

When an item has unique characteristics or is in special condition, that item may be sold on a special sale. The decision for the special sale will be made by the Director of Purchasing or his/her designated person.

Limited Central Stores:

The surplus manager will maintain an inventory of select common use items. These are items departments do not generally buy in large quantity. These items will be volume purchased to pass on the savings to the departments plus providing them with immediate delivery.

North Dakota State Surplus/Federal Surplus:

The surplus manager will utilize the North Dakota state surplus program and other state surplus programs to provide the campus with excess federal and state property.

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PROPERTY MANAGEMENT

The University of North Dakota (UND) equipment inventory control office provides a centralized equipment inventory management and reporting system to support University education, research, and administration in accordance with federal, state, and institutional requirements. The UND Energy & Environmental Research Center (EERC) property management program has been established to support program needs at the EERC economically and efficiently while working in conjunction with the UND inventory control office.

The following definitions apply to EERC property management:

1. Capitalized equipment - all nonexpendable items with a unit acquisition cost of \$750 or more and a life in excess of one year. Capitalized equipment items are tagged with the University inventory decal.
2. Capitalized equipment (minor equipment) - all nonexpendable items with a unit acquisition cost less than \$750 and a life in excess of one year. Noncapitalized equipment is not tagged, but a list of such items is maintained.
3. Government-furnished property - property in the possession of or directly acquired by the government and subsequently made available to the EERC for use in the performance of a contract.
4. EERC-acquired government property - property acquired by EERC for performance of a contract and to which the government has title or the right to take title under the contract terms.

All supplies and equipment for the EERC are delivered to the EERC receiving room, where they are checked against delivery receipts for quantity and inspected for damages. Action is taken with the vendor and/or carrier if damage or an error in quantity is noted. Inventoriable merchandise will be tagged with a UND tag number, and an Inventory Document is filled out and forwarded to UND inventory control for input to the computer. All equipment is tagged promptly upon receipt, except for leased or rented equipment, and property numbers are recorded on all applicable receiving, shipping, and disposal documents.

The following shall apply to property management at the EERC:

1. Equipment purchases are first identified on the UND EERC purchase request form, budget code section.
2. The unit cost of each item shall consist of the acquisition cost and cost of any additional components.
3. Original transportation and installation costs are part of the acquisition cost.
4. The cost of the item is reduced when auxiliary items are removed from the original item.
5. An Inventory Document is completed for each item of equipment; the original is forwarded to inventory control and copies retained with the purchase order and in the

numeric inventory document file. (Inventory documents are automatically generated by the computer for each purchase of equipment.)

6. Any loss, damage, or destruction of property must be investigated with a follow-up written report prior to removing the item from the inventory listing.
7. Any loss due to theft will be reported immediately to the UND campus police and to UND Purchasing for insurance purposes.
8. Property printouts may be obtained in various formats; for example, by property number, location, or contract number.
9. On government contracts and subcontracts, financial property control reports are submitted semiannually as of March 31 and September 30 to the applicable government agency.
10. A physical inventory of all equipment is performed annually. All discrepancies are reported immediately to inventory control. All discrepancies on government contracts are reported immediately to the government property administrator.
11. Unannounced equipment audits are made by the UND auditors.
12. Any movement of equipment is reported in an Equipment Transfer and Disposition form. The form is first turned in to EERC Purchasing for forwarding to inventory control.
13. Upon termination or completion of a government contract, a final inventory will be taken and submitted to the property administrator, who will provide instructions for disposition of the equipment.

APPENDIX F

**DESCRIPTION OF
EERC PARTICULATE RESEARCH LABORATORY**

EERC PARTICULATE RESEARCH LABORATORY

The EERC Particulate Research Laboratory specializes in flue gas sampling on pilot- and full-scale systems as well as performing bench-scale experiments using a system capable of simulating flue gas conditions, such as temperature, particulate loadings, air-to-cloth ratios, and gas concentrations (e.g., SO₂, O₂, CO, CO₂). The PRL has the capability to maintain and certify calibration of equipment used for U.S. Environmental Protection Agency-approved sampling procedures as well as a database that includes most EPA and EPA-proposed sampling methods. The PRL also provides equipment to support bench- and pilot-scale testing and sampling.

Major Equipment and Instrumentation

- TSI-3460 trijet aerosol generator
- TSI-3302 diluter
- TSI-3300 aerodynamic particle sizer
- TSI-3022 condensation particle counters
- TSI-3071 electrostatic classifiers
- TSI-3410 dry powder dispersers
- ECOM AMERICA-5 gas analyzers
- ECOM AMERICA-4 gas analyzer
- Sierra Misco-7200 stack-sampling control boxes
- Graseby-auto 5 stack-sampling control boxes
- Napp-31-C200 auto stack-sampling control boxes
- ASTM resistivity measurement cell
- Bench-scale test cells

Sampling Methods

- Method 5 - Determination of Particulate Emissions from Stationary Sources
- Modified Method 5 - Determination of Volatile Organic Compounds from Stationary Sources
- Method 6 - Determination of Sulfur Dioxide Emissions from Stationary Sources

- Method 8 – Determination of Sulfuric Acid Mist and Sulfur Dioxide Emissions from Stationary Sources
- Method 13 – Determination of Total Fluoride Emissions from Stationary Sources
- Method 17 – Determination of Particulate Emissions from Stationary Sources (in-stack filtration method)
- Method 23 – Determination of Halogenated Organics from Stationary Sources
- Method 26 – Determination of Hydrogen Chloride Emissions from Stationary Sources
- Method 29 (proposed) – Determination of Metals Emissions in Exhaust Gases from Hazardous Waste Incineration and Similar Combustion Processes (antimony, arsenic, barium, beryllium, cadmium, chromium, copper, lead, manganese, mercury, nickel, selenium, silver, thallium, and zinc)
- Method 101A – Determination of Mercury from Stationary Sources
- Ammonia sampling – To determine the amount of ammonia in a sample from a stationary source
- Rader sampler – For high-volume particle collection

Particulate Sizing Capabilities

- Aerodynamic particle sizer (APS) – Laser-based design that counts and sizes individual particles.
- Condensation particle counter (CPC) – scanning mobility particle sizer (SMPS)
 - Uses the submicron dust particles as a condensation nuclei to form a droplet large enough to count with a laser counter; particle-size separation is provided by a electrostatic classifier. When used in conjunction with computer-controlled software, a near-real-time particle-size distribution can be determined.
- Multicyclone – Provides a size cut from a sample withdrawn from the stack isokinetically (i.e., performed with a Method 5 sample) and generates a large enough sample for some analytical testing.
- Impactor – Provides a size cut from a sample withdrawn from the stack isokinetically - usually not enough sample for most analytical techniques.
- High-volume, three-stage source assessment sampling system – Provides a size cut on high-volume samples.

Bench-Scale Testing Services

- Ash resistivity – To determine the resistivity of fly ash
- Particle characteristics – To help determine collection efficiencies
- Bench-scale mercury and other trace elements
- Bench-scale particle reentrainment
- Screening of potential sorbents and/or filter materials
- SO_x/NO_x work
- Ammonia work
- Catalyst evaluations
- Ash and particle characteristics testing including cohesion measurements

Particulate Sampling and Measurement

Near-real-time measurements are made for particles ranging in size from 0.5 to 30 μm , using an aerodynamic particle sizer (APS 33) manufactured by TSI, Inc. The primary advantages of this system are the high resolution and the short sampling time. For most applications, the particle-size distribution (either as number or mass concentrations) can be obtained within 20 seconds, giving near-real-time measurements. A more convenient and effective method of plotting fine-particle emissions as a function of time is to use the computer-generated respirable mass feature of the APS program. Rather than looking at the emissions of several particle sizes, this feature combines fine-particle emissions by using a calculated value of respirable mass. The respirable mass from all of the channels is added to obtain the total respirable mass.

To determine the concentration of submicron particles (0.01 to 1.0 μm), a SMPS, also manufactured by TSI, Inc., is used. The SMPS system consists of two primary sections: an electrostatic classifier and a CPC. The purpose of the electrostatic classifier is to remove a predictable fraction of the particles within a narrow size range and pass these on to the CPC where the particles are counted. The CPC measures particle number concentration by using the light-scattering technique. This instrument can be used independently of the electrostatic classifier as a continuous real-time monitor of the number of fine particles that are present in the flue gas. An impactor, prior to the gas stream entering the CPC, removes the larger particles, giving the number concentration of submicron particles.

*Energy &
Environmental
Research
Center*

**APPENDIX G
EERC
QUALITY ASSURANCE MANUAL**

QUALITY ASSURANCE MANUAL

FOR THE

ENERGY AND ENVIRONMENTAL RESEARCH CENTER

UNIVERSITY OF NORTH DAKOTA
GRAND FORKS, NORTH DAKOTA

Prepared By

GALE G. MAYER

RECEIVED
UNIVERSITY OF NORTH DAKOTA
GRAND FORKS
JAN 10 1980

Gerald H. Groenewold
Director
Energy and Environmental Res. Ctr.

Gale G. Mayer
Quality Assurance Coordinator
Energy and Environmental Res. Ctr.

QUALITY ASSURANCE MANUAL FOR THE
ENERGY AND ENVIRONMENTAL RESEARCH CENTER

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SECTION 1

DESCRIPTION AND INTRODUCTION

The Energy and Environmental Research Center embraces an integrated systems approach to energy and environmental research, beginning with fundamental evaluation and characterization of earth resources, followed by research and development on innovative technologies to efficiently utilize those resources, and culminating in the utilization and/or safe disposal of the wastes generated in natural resource consumption. The Energy and Environmental Research Center consists of three institutes which are currently doing research in a number of areas as shown below:

- Fuels and Process Chemistry Research Institute
 - Chemical Kinetics
 - Coal-Slurry Technology
 - Fuels Technology
 - Synthetic Fuels
 - Synfuels By-Product Utilization
 - Process Development
 - Reaction Engineering
- Combustion and Environmental Systems Research Institute
 - Ash and Slag Characterization
 - Combustion Technology
 - Combustion Test Services
 - Fuels Evaluation
 - Inorganic Chemistry
 - SO_x , NO_x , and Particulate Control
- Mining and Mineral Resources Research Institute
 - Resource Characterization

- Resource Evaluation
- Resource Extraction
- Underground Coal Gasification
- Groundwater Studies
- Geological Studies
- Waste Management - Utilization and Disposal
- Surface Mine Design and Reclamation

This Quality Assurance Manual defines the requirements and the organizational responsibilities for each major element of the Energy and Environmental Research Center's Quality Assurance Program and references the supporting documents needed to provide a comprehensive Quality Assurance Program. Compliance with this Manual and its supporting documents assures that the Energy and Environmental Research Center adequately fulfills governmental and private clients requirements relating to quality.

All Research Institutes of the Energy and Environmental Research Center are directed to participate in this Quality Assurance Program and are further responsible for the implementation of the appropriate sections of this Quality Assurance Manual. The Energy and Environmental Research Center Quality Assurance Coordinator, Gale Mayer, is assigned the responsibility to assure the required maintenance to this Manual and the effectiveness of the Quality Assurance Program represented herein. He will resolve any conflicts relative to complying with the requirements of this Manual.

SECTION 2

ORGANIZATION AND QUALITY RESPONSIBILITY

EERC organization charts are presented in Figure 2.1 through 2.4. The quality assurance (QA) and quality control (QC) functions have been organized to allow independent review of project activities. The objective of the quality control efforts for the EERC is to assess and document the precision, accuracy, and adequacy of the experimental data developed as a result of programs directed through the three Institutes of the EERC.

The principal investigator of any project at EERC shall be responsible for the quality of the performance of his assigned functions for that project in accordance with the provisions of this Quality Assurance Manual. The quality assurance verification function for each of the Institutes shall be provided by person(s) who are independent of the individual or organization directly responsible for performing the activity. The verification function will be provided by the Quality Control officer for EERC.

2.1 Quality Assurance Coordinator

- Generation and promulgation of the Quality Assurance Program.
- Responsibility for scheduling, planning, and conducting quality audits; issuing audit reports, retaining audit records, and following up on requested corrective actions.

2.2 Institute Manager

- Responsibility for all functions of the Institute at the EERC including the establishment of quality policies and delegation of authority to carry out these policies. Resolves any conflicts relative to complying with the requirement of this Manual and will coordinate with the appropriate personnel to resolve any conflicts with requirements of specified codes.

2.3 Research Supervisors and Principal Investigators

- Responsible for ensuring that experimental data is collected, analyzed, reported, and stored in a manner consistent with the quality policy. Provides technical and scientific support to the Institute Manager and other work groups for the quality related aspects of test specifications, facility operations, and data reporting.

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Diane K. Reed (PT)
Lab Tech II
Pete Belling

KEY

• Dual Capacity
(PT) - Part-Time
(S) - Student
(T) - Temporary
(LOA) - Leave of Absence

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UND ENERGY AND ENVIRONMENTAL RESEARCH CENTER

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VA-9

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Frank W. Beaver
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Assistant to the Director

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- Responsible for providing engineering capabilities including design functions, design review, technical review of procurements, supervision of facility modifications assigned to a specific project, and systems operations testing and acceptance of new facilities.
- Assigned as Quality Assurance Representatives for all quality related matters as defined in the Manual, ensuring that the Quality Assurance Program is in effect for each of the assigned facilities and programs including conformance for each program or project for which services are now provided.

SECTION 3

QUALITY ASSURANCE OBJECTIVES

The EERC is currently engaged in a wide array of projects ranging from basic research to applied studies. Subject focus also varies greatly from fundamental resource assessments to innovative technology evaluation to utilization and/or disposal of wastes and other materials. Knowledge gained from work on these projects is used by federal and state agencies, industrial and utility users, and small business concerns. Experimental designs for solving problems vary with the project type and objectives. Bench-scale, process-development-scale, and pilot-scale facilities are operated in accordance with accepted Facility Operating Procedures and test plans outlined in Experimental Operating Specifications. However, specific objectives for each contract are different, prohibiting exact duplication of testing.

Analytical support for these projects is provided by on-site research and routine analytical laboratories. In many cases, standard analytical techniques and procedures are not used in the analysis of samples. The wide variety of materials generated at EERC for analysis may require unique approaches for analysis. Development of procedures specific to the sample may be required.

In light of this consideration and the project objectives, no specific QA objectives (in terms of precision, accuracy, and data capture) have been established for each of the major measurement parameters. However, considerable efforts will be made to identify the quality of the data obtained from all work performed by the EERC, as discussed in Sections 4,6,8,9, and 12 of this QA Project Plan.

It is the objective of the EERC QA Program Plan to ensure the quality of the 1) measurement of chemical and physical parameters in the field-, pilot-, bench-, and laboratory-scale work; 2) performance of analytical, engineering, and process evaluations; 3) planning and conduct of experimental studies; 4) evaluation of results; 5) collection and preservation of samples and data relating to the measurements and accumulated data; and 6) preparation of the reports required. It is the objective of this plan to establish standards ensuring all measurements will be taken so that results are representative of the media (air, water, solids, etc.) and conditions being measured. The plan will also ensure that all data will be calculated and reported in units consistent with other organizations reporting similar data to allow comparability of data bases among organizations.

SECTION 4

SAMPLING PROCEDURES

An appropriate sampling plan is a critically important step in designing a project which will satisfy both scientific and regulatory objectives. Once these objectives have been clearly identified, a suitable sampling strategy, based on fundamental statistical concepts, can be developed. A standard procedure has been developed for requesting and scheduling sampling, identifying samples, and retrieving results for analyses performed on the samples. This standard procedure is located in the EERC Standard Practices Manual, Standard Practice 2.0. As implemented, a sampling schedule is included in each Experiment Operating Specification (EOS). Once collected, samples are uniquely identified by the run number and sample identification number.

4.1 Policy

- A sampling schedule will be included in each EOS. This schedule will include standard samples and special samples.
- Samples will be labeled with the complete run, or test number, sample identification information, date, and real time.
- All samples will be logged in a sample log book for that project. Samples will then be delivered to the appropriate analytical lab.

4.2 Procedures

4.2.1 Sample Schedule

- A complete sample schedule will be included in each EOS. This schedule will include standard samples and special samples.
- A schedule of standard samples to be collected shall be maintained for every project. This schedule will list all samples collected on a regular basis and include the sample size, collection frequency, analysis request, sample destination, and special handling and preservation requirements.
- A schedule of special samples to be collected shall also be maintained for each project in the EOS and should specify the sample material, sample size, sampling frequency, analysis request, special handling and preservation requirements, and sample destination. Special samples requested during a run will be listed in the sample log book with information relating to the request.

- It is the responsibility of the Principal Investigator for a specific project to provide the proper Sampling Schedules.

4.2.2 Sample Collection

- Samples will be collected according to the Sample Schedule included in the EOS. Any deviations from this schedule should be noted and explained in the unit's log book.
- A sample label will be attached to every sample taken. Each sample taken will be labeled with the run or test number, sample number, project number, date, real time, and sample identification information. Any special concerns regarding the sample will also be listed on the label.
- Rush samples will be logged and delivered as quickly as possible.
- The collection of samples will be recorded on sample collection data sheets or in the sample log book.
- The samples will be delivered to the party specified in the Sample Schedule. The party will sign for the samples on the analysis request forms and write the time and date at which the samples were received.
- A computer ID No. will be assigned to the sample by the appropriate analysis laboratory. This number will be filled in on the analysis request form.

4.3 Responsibilities

- The principal investigator in charge of the specific test will be responsible for including the complete sampling schedule with the EOS.
- Project technicians will be responsible for locating an adequate supply of suitable sample containers, for collecting and labeling samples, for entering sampling information in the sample log book, and for delivering analysis request forms and samples.
- The laboratory which will be performing the analysis will be responsible for filling in the ID No. on the analysis form.

SECTION 5

SAMPLE CUSTODY

Equally important to proper sampling procedures is following correct protocol for sample custody. The "chain-of-custody" procedures presented in this section were established to allow samples to be tracked for QA purposes. These procedures shall be followed in conjunction with those established in Section 4.

- The Principal Investigator shall include in each EOS a sample schedule that lists all samples to be taken and the analyses to be performed on each sample.
- During the test, technicians shall collect samples in accordance with the sample schedule. Samples shall be properly labeled as they are collected.
- The technicians shall log samples in the sample log book. After the run, the sample schedule and sample log shall be checked to ensure that all samples have been taken. The Principal Investigator will be notified of any variances from the sample schedule.
- Technicians shall fill out an Analysis Request Form for each sample, taking special care to properly transfer the information from the sample label. A copy of the analyses request form shall be delivered to the principal investigator for each sample. The principal investigator will review these forms to ensure the proper analysis requests have been made.
- All samples shall be delivered to the analysis laboratory by technicians following the run. The analysis laboratory shall indicate on the analysis request sheet the samples that were received.
- The analytical laboratory shall log all samples into the analytical laboratory log system. All samples will be given a computer-generated ID number.
- A listing of all samples logged in the analysis laboratory and the type of analysis requested for each sample should be provided to the principal investigator for each project on a monthly basis. This serves as a second check that all samples have been properly entered into the analytical laboratory and provides an additional sampling record for the principal investigator.
- Once in the analytical laboratory, samples are analyzed according to those procedures outlined in the Quality Assurance Manual for the specific laboratory. The sample custody practices followed within each analytical laboratory is also discussed in each laboratory's QA Manual.

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- The analytical laboratory performs the requested analyses and submits a sample report to the requesting party. Samples are kept in live storage for a period of at least one month, in case additional analyses are required or a repeat analysis is requested.
- After at least one month in active storage, the analytical laboratory returns samples to the project manager for storage in a permanent sample storage location. The samples are inventoried and filed in the sample file location for the particular unit from which the samples were generated. Non-degradable samples are to be stored for a period of at least five years.
- Periodically, the sample storage inventory will be reviewed. Samples that have outlived their useful life, in terms of maintaining sample integrity due to age, will be removed from the sample storage system. Any sample removed from the sample storage system will be indicated on the sample storage inventory.
- All analyses will be performed following accepted laboratory procedures. Analytical operations will be recorded in bound laboratory notebooks and/or computerized laboratory data systems.

SECTION 6

CALIBRATION PROCEDURES AND FREQUENCY

The purpose of this section is to establish the requirements and responsibilities relating to the control of accuracy of all measurement equipment and services at EERC which are directly or indirectly used for collecting data. The responsibilities and procedure for performing this function are described in this section.

6.1 Instrumentation Repair and Calibration Group Responsibilities

Calibration may be performed by EERC personnel or by an outside organization. In each case, it is the Instrumentation Shop's responsibility to effectively accomplish appropriate control of measuring and test equipment (M&TE). In general, the responsibilities of the Instrument Shop are as follows:

- Originate purchase requisition for M&TE which will be purchased from a vendor or calibrated by an outside organization. All certifications or calibrations from manufacturers requested via purchase orders (e.g., for thermocouples, instruments, etc.) will be retained in the respective instrument/component calibration files.
- Maintain reference and transfer standards and the appropriate environmental facilities to establish and assure basic, accurate values for the Calibration program. These standards shall be traceable either directly to the National Bureau of Standards (NBS) or to other nationally recognized standards with known valid relationships.
 - Category A: Instruments/equipment which are calibrated to the stated frequency in Appendix 6.3. This group includes final (downstream) measuring devices which are critical to experiment data/facility operation.
 - Category B: Instruments/equipment which are only calibrated when purchased or replaced. The group usually consists of upstream measuring devices which do not actually perform as final or critical measuring devices.
- Plan and perform receiving inspection/test of M&TE within the scope of the calibration capabilities at EERC.
- Establish calibration intervals for M&TE and conduct periodic evaluations of calibration history data and adjust calibration intervals in accordance with trends indicated by analysis of such data.

- When appropriate, pick up and deliver the M&TE to its custodian or user. Maintain equipment capable of transporting the M&TE in such a way as to preclude its damage or the reduction of its accuracy.
- Prepare or obtain calibration procedures for M&TE. Calibration procedures may be obtained from manufacturers or vendors; U.S. Navy Calibration Laboratory, Pomona, California; or U.S. Air Force Calibration Laboratory, Middletown, Ohio.
- Label the measurement device or system to indicate its calibration status. When applicable, seal device to prevent unauthorized adjustments from being performed.
- Prepare and retain on file a written record of the calibration performed on the working instrument which includes identification of the specific standards used.
- Maintain records of all calibration, repair, and measuring activities.
- Determine the calibration exemption status of certain measuring equipment/devices and/or systems, and appropriately label such items.
- Assure that the proper storage handling facilities and practice are provided for the measurement equipment/device.
- Assure to the extent practical, after coordination with the user, that any measurement equipment/device that is damaged beyond economical repair is removed from service and from the recall program.
- Assure that each measurement equipment/device requiring calibration has been physically identified with a unique identification number (e.g., property number or serial number) by means of which the calibration frequency of the equipment/device can be controlled and traceability maintained.
- Maintain a system identifying all measuring equipment/devices requiring calibration, together with the date on which the last calibration was made, and the established calibration interval. Identify all measuring equipment/devices in custody that are overdue for calibration.

6.2 User Responsibility of M&TE

- Use only a measuring equipment/device which bears evidence of current calibration or is otherwise labeled as not requiring calibration. Never use a measurement equipment/device after it has been mishandled so as to invalidate its calibration.
- Treat the measurement equipment/device with care to preclude its premature loss of accuracy.

- Report immediately to the Instrument Shop any improper handling or misuse of M&TE.

6.3 Calibration Procedures

- Calibration procedures may be obtained from the manufacturer or developed by the Instrument Shop, either directly or through contract.
- The procedures may take many forms; however, those developed by the Instrument Shop shall be numbered and approved.
- A file of approved calibration procedures shall be maintained by the Instrument Shop.
- The Instrument Shop shall calibrate each M&TE in accordance with appropriate calibration procedures. A calibration decal shall be applied by the calibration technician, as follows:
 - Apply a "Calibration" decal to all measurement equipment/devices calibrated. See Figure 6.1.

Figure 6.1 "Calibration" Decal

- Apply a "Calibration Not Required" decal to the measurement equipment/devices which do not require calibration, but which nevertheless must be recalled periodically for preventive maintenance. See Figure 6.2.

Figure 6.2 "Calibration Not Required" Decal

- Use one of the following techniques to seal calibrated measurement equipment/devices to discourage unauthorized repair or tampering with adjustments to preserve the integrity of the calibration:

Wire and lead seals: Normally used on larger measurement equipment/devices or systems to seal doors, panels, or plug-in modules where removal affects calibration.

Decal seals: Used on smaller measurement equipment/devices where it is difficult or impractical to adapt the use of wire and lead seals.

- Where it is impractical to use decals, suitable checklists may be attached to the system near the measurement devices. The checklist must include, as a minimum, the same information which would be supplied by the decal: organization identity, identification of technician who completed the work, date work was accomplished, and expiration date.
- The Calibration Control Card and Work Record Card, shown in Appendices 6.1 and 6.2, shall be used to record the calibration data. An individual history file for each M&TE shall be maintained. These files shall contain:
 - Calibration variables data, as applicable;
 - Manufacturer's name or code;
 - Model number;
 - Nomenclature;
 - Property number and serial number or other unique identifier;
 - Submitting organization and/or location or area where equipment is used;
 - Calibration or servicing interval;
 - Calibration procedure used;
 - Manufacturer's stated instrument accuracy;
 - Identification of the equipment used, including serial number or other identification;
 - Condition of equipment as received (in and out of tolerance);
 - Any repair work performed;

- Person who performed calibration;
- Date submitted for calibration;
- Calibration completion date; and
- Next calibration due date.

6.4 M&TE Calibration Recall System

- A Calibration Control Card (Appendix 6.1) is prepared for each item requiring calibration. A signal is positioned in the visible margin of each Calibration Control Card to indicate the next scheduled inspection.
- At regular intervals, each row of cards is scanned to locate those items that have been signaled for required work for that time period. The Calibration Control Card is removed and immediately forwarded to initiate the required calibration.
- When the calibration has been completed and data recorded, the Calibration Control Card is returned to the file at the location for the next inspection time. A colored dot will be added to the card to show that the work has been completed.
- Any deviation noted while performing an item calibration and/or specific remedial maintenance required to bring that item into calibration specifications shall be recorded on the Calibration Work Record Card (Appendix 6.2).
- Based on the following factors, the Instrument Shop shall periodically evaluate established calibration recall intervals for existing and new measurement equipment/devices:
 - Historical experience with the individual or similar measurement device;
 - Proposed use and purpose of the measurement equipment/device;
 - Accuracy requirements (relation of measurement equipment/device to product tolerance);
 - Inherent stability of the measurement equipment/device;
 - Requirements of national codes and standards, as applicable;
 - Manufacturer's recommendations; and

- National Conference of Standard Laboratories (NCSL) or Primary Standards Laboratory (PSL) recommendations based on technical surveys or studies.
- Due dates shall be listed on the Calibration Control Card in accordance with the calibration intervals for the individual measuring devices given in Appendix 6.3.
- Regardless of the established interval, a measurement equipment/device will be recalibrated after its modification, repair, damage, or other condition that may result in reduced accuracy beyond the acceptable tolerances established for the subject equipment.

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APPENDIX 6.1

CALIBRATION CONTROL CARD

SPECIFICATIONS				WTC, SERIAL NO.				DATE				TIME				PAGE			
TEST PROCEDURE NO.				P.O. NO.				NEW ☐				USED ☐				DATE			
SERVICE OR MAINTENANCE				OWNED BY				CONTRACT NO.				CALIB PER.				COST			
LOCATION		CALIBRATION DATE		IN DATE		RECALL DUE		CALIBRATION		CALIB		REPAIR		CHECKED BY		USAGE CODE			
1																1	27		
2																2	28		
3																3	29		
4																4	30		
5																5	31		
6																6	32		
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21																21	47		
22																22	48		
23																23	49		
24																24	50		
25																25	51		
26																26	52		
27																CONTRACT			
28																CALIB. CONT.			
29																			
30																			

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APPENDIX E.2

CALIBRATION WORK RECORD

[illegible]

APPENDIX 6.3

CALIBRATION RECALL INTERVALS

<u>Measurement Equipment/Device</u>	<u>Calibration Recall Interval (Days)</u>	<u>Measurement Equipment/Device</u>	<u>Calibration Recall Interval (Days)</u>
Accelerometer		Bridge (cont.)	
Crystal-type	360	Wheatstone, precision	360
Strain gage-type	180		
Amplifier	180	Calibrator	
Charge	120	Current	180
Scaler Driver	360	Meter	120
Analyzer		Period level	180
Distortion and Spectrum	180	Sound level	360
Gas	90	Tape recorder	90
Sound and Vibration	180	Thermocouple simulator	90
		Voltage	180
Angle Finder	180	Caliper	
Attenuator		Dial	180
Fixed	360	Vernier	180
Variable	270		
Balance		Camera, oscilloscope (PM)(a)	360
Single-Pan	180		
Two-Pan	360	Capacitor	
Barometer		Air	360
Aneroid	180	Cornell Dublier models CD,	NCR(b)
Mercury	360	CDA, CDB, and CDC	
		Decade	360
Block		Variable	360
Angle	360	Cell	
Gage	360	Load	360
Bolometer	180	Standard, saturated and	360
Bridge		unsaturated	
Capacitance	360	Comparator	
Conductance	180	Optical	180
Impedance	270	Phase	180
Inductance	360	Voltage	360
Megohm	180		
Mueller	360	Converter	
Resistance	180	Analog and Digital,	180
Universal ratio	360	solid-state	
		Analog and Digital,	90
		tube-type	
		Frequency, solid-state	180

APPENDIX 6.3

CALIBRATION RECALL INTERVALS

<u>Measurement Equipment/Device</u>	<u>Calibration Recall Interval (Days)</u>	<u>Measurement Equipment/Device</u>	<u>Calibration Recall Interval (Days)</u>
Converter (cont.)		Film, step tablet (densitometer)	360
Frequency, tube-type	90	Filter, electronic	360
Thermal	90	Flowmeter, velocity	90
Counter with timebase, time interval and frequency	90	Mass or Volume Rate (hot wire and turbine)	360
Plug-in	90	Variable Area	180
Counter without timebase		Gage	
Solid-State	360	Crankshaft	180
Tube-Type	180	Depth, dial	180
Crimper, wire	360	Depth, vernier	360
Deadweight Tester	360	Dial (bore, groove, ID)	180
Demodulator	180	Dial, thickness	180
Detector	180	Differential pressure	90
Microwave	180	Force	180
Mercury	360	Height, step and vernier	180
Multi-Gas	180	Ionization	360
Radiation	360	Planer	360
Dewpointer	360	Plug Jo	180
Discriminator		Plug, plain	180
Solid State	180	Plug, taper	180
Tube Type	90	Plug, thread	180
Divider, frequency	180	Pressure (C)	90
Voltage	180	Ring, cylindrical	180
Dosimeter, audio	360	Ring, thread	180
Durometer	180	Snap	360
Dynamometer	90	Generator	
End Standard	360	DOP Aerosol	360
Exciter, vibration	NCR	Function, solid-state	180
		Function, tube-type	90
		Pulse	360
		Hydrometer	90
		Hygrometer	90
		Impact Tester (d)	360

APPENDIX 6.3

CALIBRATION RECALL INTERVALS

<u>Measurement Equipment/Device</u>	<u>Calibration Recall Interval (Days)</u>	<u>Measurement Equipment/Device</u>	<u>Calibration Recall Interval (Days)</u>
Indicator		Meter (continued)	
Centering	180	Multimeter, digital	90
Dial	180	Dana Model 3800	180
Electronic	180	Fluke 8040A & 8600, 8024A	180
Inductor, decade	720	Systron Donnor 7050(e)	180
Integrator	180	Fluke 8000A, 8030A(e)	360
Inverter	180	Multimeter, VOM	NCR
Leak		Nitrogen Dioxide	90
Standard	360	Null Volt, solid-state	360
Detector	180	Null Volt, tube-type	180
Level, precision (bubble)	120	Panel	360
Machine		pH	90
Measuring	180	Phase Angle, solid state	180
Surface Finish	180	Phase Angle, tube type	90
X-Y Coordinate	180	Picoampere	90
Magnascope	360	Power	180
Megger	360	Resistance	
Meter		to 100 megohm	180
Capacitance, solid-state	180	above 100 megohm	90
Capacitance, tube-type	90	Sound Level	360
Current, ac, dc, clamp-on	180	Volt	
Elapsed Time	360	ac, dc, RMS, solid-state	180
Electrometer	90	tube-type	120
Flowrater	180	differential	90
Flutter and Wow	180	electrostatic	360
FM Deviation, solid-state	180	VTVM, solid-state	90
FM Deviation, tube-type	90	VTVM, tube-type	180
Galvanometer	360	watt	180
Gauss	180	Micrometer	
Illumination	180	Center	180
Impedance	180	Depth	180
Megohm	180	Groove	180
GR Model 1862-C(e)	360	Inside or Outside	180
		Intra	180
		Multi Anvil	180
		Optical (depth)	180
		Super	180
		Thread	180
		Tube	180
		Vee Anvil	180

APPENDIX 6.3
CALIBRATION RECALL INTERVALS

<u>Measurement Equipment/Device</u>	<u>Calibration Recall Interval (Days)</u>	<u>Measurement Equipment/Device</u>	<u>Calibration Recall Interval (Days)</u>
Microscope	360	Preamplifier	
Eye Piece Optical Scale		Solid State	180
Modulator (Graduations)	180	Tube Type	90
Monitor, carbon monoxide	90		
Mount, thermistor	360	Printer, digital	PM 180
		Probe, high-voltage	180
Optical		Pump, sampling	180
Alignment Scope	90		
Jig Transit	90	Punch, tape	PM 180
Level (optical)	90		
Surveyor's Transit	90	Pyrometer	180
Triangulation Transit	90		
Optical Flat	360	Receiver	360
Oscillator		Recorder	
Solid-State	180	Digital	PM 180
Tube-type	120	Oscillograph	120
		Strip Chart	90
Oscilloscope		Tape	120
Plug-Ins	180	Temperature	120
Solid-State	180	Temperature & Humidity	120
Tube-Type	120	X-Y	120
		X-Y-Z	120
Oven	NCR	Visicorder	120
Particulate Detection Apparatus	180	Reference Junction, thermocouple	90
Photometer	360	Regulator, voltage	360
Pitape	360	Resistor	180
Potentiometer		Cornell Dublier Models CD, RAD, RBD, and RDC(e)	NCR
Portable	180	Decade	180
Precision	360	Shunt	360
		Standard	360
Power Supply		Tachometer	360
Precision Source	90		
With Calibration Dial or Meters	180		

APPENDIX 6.3

CALIBRATION RECALL INTERVALS

Measurement Equipment/Device	Calibration Recall Interval (Days)	Measurement Equipment/Device	Calibration Recall Interval (Days)
Rotary Table	360	Tester	
Scale		Battery	360
Precision	360	Deadweight	360
Length	PM(f) 360	Hardness	180
Platform	180	Hi Pot	180
Spring	360	Impact(d)	360
Scaler		Transistor	360
Solid-State	360	Tube	360
Tube-type	180	Thermocouple	360
Standard		Thermometer, all types	360
End	360	Threadwires	360
Surface Roughness	360	Tracer, curve	180
Stopwatch	360	Transducer	
Strobotac	360	Pressure	360
Surface Plate Accessories		Temperature	90
Bar, sine	360	Transformer	
Block, riser	360	Decade	360
Block, vee	360	Fixed	NCR
Edge, straight	360	Variac	
Knee	360	Metered	360
Parallel, bar	360	Non-Metered	NCR
Parallel, box	360	Weights	360
Plate, sine	360	Wrench, torque	90
Square, cylindrical	360		
Square, precision	180		
Termination, coaxial	180		

- (a) PM indicates that preventive maintenance only is performed.
(b) NCR indicates that no calibration is required.
(c) For ASME Code tasks, pressure gage calibration is required before each use.
(d) For ASME Code tasks, temperature measuring devices used in conjunction with impact testers must be calibrated every three months or prior to each use.
(e) Indicates exceptions to recommended intervals by manufacturer and model number
(f) Receives initial calibration and preventive maintenance at intervals thereafter.

SECTION 7

EXPERIMENTAL TEST PROCEDURES

The purpose of this section is to set forth the quality requirements and responsibilities pertaining to testing, and thereby assure that systems and components perform satisfactorily in service. This document applies to all pilot- and bench-scale test facilities. This document also applies to construction activities, system shakedown or system operations checkouts, and normal operating tests.

7.1 Construction Component and Systems Operational Testing

The following outline description is presented to describe the overall EERC control system for test activities related to the construction component (CC), construction of new facilities or major modifications to existing equipment, and systems operational (SO) testing to verify the operation of the construction. The responsibilities and procedure for these activities is as follows:

7.1.1 Construction Component (CC) Testing

- Principal Investigator
 - Review and approve CC test plans.
 - Distribute CC test plans for review and/or approval.
 - Review final inspection records to assure completeness, as necessary.
 - Review data results of CC test to assure that the QA-related aspects were documented and results evaluated.
- Research Engineer
 - Prepare CC test plans and submit to Principal Investigator for review and approval.
 - Review the quality-related aspects of CC test plans, system turnover plans, and procedures.
 - Review system turnover packages for completeness.
 - Coordinate submittal and review of system turnover packages.
 - Witness CC tests and assure proper data is recorded.

- Assure proper turnover documentation is assembled, completed, and submitted for review and/or approval.

SYSTEMS OPERATIONAL (SO) TESTING

- Principal Investigator
 - Review and approve SO test requirements.
 - Witness SO tests and assure proper data is recorded.
 - Review data results of SO tests to assure that the QA-related aspects were documented and results evaluated.
 - Conduct, inspect, and document SO test results.
 - Analyze data, draw conclusions, and close out package.

All deviations noted during the performance of the SO test will be documented prior to the sign off of test completion. Each deviation will be documented by an identifying number and referenced to the applicable sequential step number in the procedure. Each deviation entry will bear the initial and date of the cognizant (defined) personnel. The last page of the SO Test procedure will be signed and dated, indicating test completion and acceptance of data.

7.2 Operations Testing

This section presents the quality-related responsibilities and procedures for any testing performed on pilot-plant equipment or any laboratory devices or other experimental test devices.

7.2.1 Principal Investigator

The Principal Investigator for a project assures preparation of system and facility test plans and operational procedures, as necessary. The Principal Investigator:

- Includes the following information in the test plan, called the Experimental Operating Specifications (EOS).
 - General description and test objectives
 - Prerequisites to beginning test

- General test method
 - a. Material and equipment required
 - b. Operating conditions and limitations
 - c. Test configuration
 - d. Test environment
 - e. Test data to be obtained
- Specific precautions
- Appropriate data sheet identification
- Acceptance criteria
- Post-test activities
- Assures that the facility equipment designs, including instrumentation systems, are adequate for the planned testing and/or prepares design modifications which provide the required capability.
- Reviews and documents results of completed tests where components/systems are stressed beyond their normal operating limits and/or predicted values, and evaluates the situation.
- Identifies and places under configuration control those documents and procedures used for testing.
- Upon completion of the test, is responsible for preparation of a test report including the following, as applicable:
 - A description of the test, referencing the EOS number and issue;
 - The results of the test, including required data sheets, graphs, charts, and analytical results; and
 - An evaluation of the test results, indicating whether or not the results were acceptable in accordance to the procedure outlined in Section 8 of this manual.
- Submits approved test results and report in accordance with contractual requirements.

7.2.2 Operations Technicians

- Maintains adequate documentation during the performance of testing to record both normal and abnormal events, noting the date and time of occurrence. Procedures for performing this function are given in Section 7.3.

- Responsible for the collection, identification, and documentation of samples taken on all units in accordance to that prescribed in the EOS. The system for performing this function is presented in Section 4 of this manual.

7.2.3 Analysis Laboratory

- Each respective analytical laboratory is responsible for analyzing all samples submitted to their laboratory through the Principal Investigator.
- Analysis is to be performed in accordance to EPA, ASTM, or APHA, ANWA, and WAF Standard Methods. Each laboratory is responsible for the quality control function within its laboratory.

7.3 Operating Logs/Records Keeping

Operating records and detailed logs will be kept on all facility operations to provide complete experiment documentation, a chronological list of occurrences to support unplanned event investigations, and backup information which can be used for data interpretation, future experiment planning, and preventive maintenance planning. The procedures are as follows:

7.3.1 Log Book Administration

- All Log Books will be permanent records of all operations and maintenance conducted on a particular test facility. These records will be kept in a bound log book with consecutively numbered pages to provide retrievability and accountability of all entries.
- The inside cover sheet of each Log Book will be titled for the particular facility it pertains to or the operations/maintenance activity being described; that is:

Shift Supervisor Log
Particulate Test Combustor Operating Log
- Each Log Book for a particular function will be labeled Volume I, Volume II, etc., so that an easily identifiable, consecutive record is generated. Likewise, the inclusive dates of the Log Book entries will be entered on the inside cover page.
- All Log Books which have filled the included pages will be collected by the Project Manager for review and proper annotation. These books will then become a part of the permanent records for the facility.

- Entries shall be legibly written or printed with a nonsmearing ink and shall be as descriptive as possible to accurately document the operation or anomaly. Generally, too much information is far superior as too little information cannot be adequately interpreted.

7.3.2 Facility Operating Logs

- Any technician assigned to a particular test facility has the responsibility to enter items into the Facility Operating Logs. These items will usually be of a non-routine nature and may include such things as component failures, system adjustments during steady-state conditions, other-than-routine calibrations, etc.
- The Facility Operating Logs will be reviewed by the relieving technician at the start of their respective shifts. A weekly review of all facility operating logs will be made by the Principal Investigator.

7.3.3 Shift Supervisor Log

- Only Shift Supervisors may enter items in the Shift Supervisor Log. These items will be a concise, accurate description of the events of their shift. This log will also be used to "pass on" information to succeeding shifts such as special notes on current operations, last minute changes to work direction, or derived information which amplified a given procedure.
- The Shift Supervisor Logs will be reviewed at the start of each shift by the Shift Supervisor. A monthly review of the shift operations log will be made by the Operations Group Supervisor. Items that indicate a trend or are a potential problem will be reviewed and corrected.

SECTION 8

DATA REDUCTION AND REPORTING

The purpose of this section is to define responsibility and establish practices and procedures used to qualify data for submission to contracting agencies. Methods used to reduce data collected, validate data integrity, identify and treat outliers, and report the data are discussed as they relate to the quality of the final data package and report delivered to the contracting agency.

8.1 Policy

With respect to test data, it is the policy of the Principal Investigator to:

- Ensure that test preparation and test operation are performed and documented in a prescribed and acceptable manner.
- Ensure that the test data are acquired, processed, and qualified according to prescribed procedures.
- Ensure that sufficient post-test documentation is provided to support the release of data, record history, and traceability of test data.
- Ensure that test data have been reviewed per this standard by qualified personnel prior to its release.

8.2 Procedures

The policies stated in Section 8.1 shall be implemented by the EERC as stated in the following sections:

8.2.1 Test Preparation

- Test specifications, such as the EOS and FOP, will contain those provisions necessary for ultimate compliance with these procedures.
- Upon receipt of a contract requesting a run, the Principal Investigator or assigned engineer will determine the specific instrumentation and test equipment that will be required for the run and, if necessary, expand the pre-run checklist to include any special preparation.

- The Principal Investigator will prepare a predicted run model based on information from prior tests and from consultation with the Project Manager and other EERC personnel.
- The Principal Investigator or assigned engineer will notify the Instrument Shop of instrumentation requirements and followings to ensure all instrument preparation is accomplished before the start of the test.
- The Principal Investigator or assigned engineer will provide the data sheets for the run and will develop new data sheets for any special test conditions indicated by the run request.

8.2.2 Run Time

- Instrumentation personnel will be available to monitor instrumentation used throughout the run.
- The Principal Investigator and assigned engineer will conduct observations to certify conformity with the FOP and EOS throughout the run.
- Instrumentation personnel will conduct a post-run calibration (when required) before the system is shut down to determine if any instrumentation changes have occurred that may have an adverse effect on the data.

8.2.3 Post-Run Procedure

- Operations technicians will conduct a post-run review. All material involved with the test, such as run preparations, the run log book, discrepancy reports, sample log book, raw data, and operator preliminary calculations, will be collected for this initial review. The material will be checked for data anomalies and deviation from run parameters. Any pertinent observation by run personnel will be noted before transmission for data reduction.
- Data reduction will be conducted by the Principal Investigator and any assigned engineers and checked before data qualification.

8.2.4 Data Qualification

After data reduction, the Principal Investigator will initiate the final steps in the data qualification process. By nature, the qualification process is somewhat subjective. Maximum use should be made of expert opinion, test

predictions, committee discussions, etc., to enhance objectivity. Specific tasks of data qualification include the following:

- All data should be reviewed for completeness and gross inconsistencies. Transmission of samples to proper destinations will be confirmed.
- Test data shall be reviewed to determine further corrections. Instruments of similar type can be compared using statistical methods. Comparisons can be made between predicted or expected results and test data. Appropriate theoretical or derived values may be used. Judgmental decisions should be based on knowledge of instruments, test procedures, and statistics.
- All numerical data must be reported with the appropriate number of significant figures. The number of significant figures will depend on the precision of the instrumentation and/or analytical techniques used. Where these requirements specify a maximum variance, e.g, steady-state variances, the data must be precise enough to determine if the results meet the variance requirements.
- Statistical information must be provided for any data that are reported as averages (i.e., steady-state period data). This statistical data will include the number of data points averaged, the maximum, the minimum, the standard deviation, and the variance.
- For derived data, the method of derivation must be described if it is different from methods accepted as standard by the industry.
- Categorize the data according to the following criteria:

Qualified Data - Test data qualified and approved by the Principal Investigator. These data meet all of the following criteria:

- Conformity to EOS and FOP has been verified.
- Data acquisition system calibrations have been applied.
- All identifiable and verifiable systematic errors have been removed.
- Consistency checks have been applied.
- Some useful information is contained in the data.

Failed Data - Test data are considered failed for one or more of the following reasons:

- Data do not meet the requirements of any other data classification categories.
- Useful information is irretrievable from data.
- There was a component failure in the data acquisition system.
- Enigmas in the data.

Preliminary Data, Not for Release - Data which have not completed the classification process.

Good Data, Not Qualified - Data which have been fully processed and do not meet other qualification standards because:

- While the data appears to be good, falling within expectations and verified with EOS and FOP, consistency checks could not be verified due to lack of supportive data and information.

or, data which have not been fully processed and do not meet other qualifications because:

- Data are not necessary to support test objectives.
- Data are redundant and do not provide any information other than for internal or verification purposes.
- Run conditions deviated from EOS parameters.

Not Reviewed Data - Test data which have not been reviewed for quality. This definition is for internal record keeping only.

SECTION 9

INTERNAL QUALITY CONTROL CHECKS

The experimental efforts of the EERC include a quality assurance/quality control (QA/QC) program as an integral part of the overall technical effort. Such a program is essential for the successful completion of contract research programs. QA is a system for ensuring that all information and data gathered under a specific task are technically sound and properly documented. QC is the mechanism through which quality assurance achieves its goals. A quality control program verifies product quality by defining the frequency, methods of checks and audits, and reviews necessary to identify problems and dictates corrective action.

The objective of the QA/QC program is twofold. First, it will provide the mechanism for controlling data quality. Second, it will form the basis for estimates of uncertainty associated with measurement data by providing information for estimating error limits. The control function of the QC effort is based primarily on specific QC checks which are an integral part of the specified experimental procedures. Provisions for data quality assessment are also built into the test design.

The general nature of the experimental work performed by the EERC precludes an intensive QC program where each test and each data point can be examined to assure data quality. The methods of experimentation, especially with the pilot-scale systems, the exploratory nature and development of analytical techniques, and the expense involved with separate tests or multiple tests for QC purposes, preclude the use of those methods considered standard QC methods. Internal quality control checks are performed, however, on those parts of a test system that are considered critical to the integrity of the data from that specific unit. The methods used are presented in this section.

9.1 Redundant Measurements

- Redundant, or duplicate, measurements shall be taken, where practical, of all critical points in a test system. Examples of redundant measurements that are routinely used include:
 - Local manometers and electronic dp cells.
 - Two or more thermocouples in critical areas where temperature measurement is essential.
 - Flow meters and orifices with electronic dp cells.
 - Hard copy of data recorded during the run and the data stored on computer disk.

A listing of the type and location of redundant instrumentation is given in the Facility Operating Procedures (FOP) for each respective unit.

- If a difference exists between two redundant measurements during a test, an instrument technician shall be called to determine the discrepancy and correct the failed instrument.
- Periodically, the test engineer shall submit duplicates of a sample for lab analysis, with different sample identification. These duplicate samples will serve as a redundant check on the quality of the analytical laboratory.
- During data reduction and report preparation, corrections shall be made to all data points where errors occur as a result of failed instrumentation. The set of readings that were determined to be correct by the instrument technician during his inspection will be used in the data analysis.
- The redundant instrumentation will be used to help qualify the integrity of the data collected in accordance to the definitions given in Section 8.

9.2 Calibration Standards

- All instrumentation shall be routinely calibrated in accordance to the procedures of Section 6.
- Non-scheduled instrument calibrations can be requested by any of the following: Principal Investigator, assigned engineer, or operational personnel.

9.3 Zero and Span Gases

- All gas analyzers will be zeroed and spanned before and after each test, and at least at eight-hour intervals during a test.
- Span gases will be chosen to be within the expected measurement range for the test.
- Span gases to be used will contain a mixture of more than one gas, in case the presence of one gas would have an effect on the calibration of the other.
- Span gases will be obtained from a reputable company that can assure the purity of the gases provided.

9.4 Standard Runs (Example - Ash Fouling Unit)

- Periodically, runs will be performed on the ash fouling unit using a standard coal to calibrate the system and ensure that consistent results are being obtained.

- Coal from the Beulah mine will be used as the standard coal.
- Standard tests should be performed every five to ten runs.
- Deposit weights and strengths from the standard test should be compared to results from other standard runs to determine any system changes or drift. If the data collected falls outside of two standard deviations from historical data, the system shall be checked for possible sources of error. After any corrective maintenance is performed, the test shall be repeated.

9.5 Experimental Design/Replicate Tests

- In any experiment involving more than one test, a statistically valid experimental test matrix shall be used to ensure data quality.
- In establishing the experimental design, a certain number of center point, repeat tests, shall be prescribed in accordance to statistical methods.
- Results from these repeat center points shall be used during the run to ensure that no significant changes have occurred in the test system. If major differences appear between any two repeat tests, it will be the responsibility of the test engineer to perform detailed system checks to ensure that the differences are due to random variability, and not to system or operator errors.
- Upon completion of a test, data from the repeat tests shall be used to determine the precision of the system firing that specific coal.

9.6 Chain of Custody of Samples

- It is critical to the quality of data that all samples taken during a test are marked and analyzed properly. Proper storage of samples is also critical to data quality in the event that a repeat analysis of a sample is required.
- Procedures and responsibilities for ensuring sample integrity are described in Sections 4 and 5.

9.7 Quality Audits

- Internal quality audits will be used to ensure quality of the data generated at the EERC. These audits can be requested by the Institute Manager, Principal Investigator, or any other research personnel in an Institute.

- Quality audits will be performed in accordance to the procedures of Section 10.

9.8 Other Independent Quality Checks

- It will be the responsibility of the Principal Investigator of each respective project to ensure completeness of reporting within his group.
- Each EOS shall be reviewed before the start of any test to ensure that the testing outlined in the EOS is adequate to meet the needs of the client. The approval of the Principal Investigator shall be indicated by a signature on the cover sheet of the EOS.
- All client reports shall be reviewed by the Institute Director before being sent to the client to ensure the quality of the document. No report shall be sent to a client without the Principal Investigator approval.
- The Institute Manager has final authority to override the Principal Investigator's decision of whether or not to send a report. Before any report is sent out with Institute Manager approval, but without that of the Principal Investigator, a meeting shall be held with the Institute Manager, Principal Investigator, lead engineer, and Quality Assurance Coordinator to discuss the report.
- The Principal Investigator shall periodically check calculations made by engineers in data reduction and design work to check methods and assumptions used. Changes will be recommended as necessary.

SECTION 10

QUALITY AUDITS

This section provides procedures and responsibilities for conducting quality audits, for accomplishing corrective action, and for providing timely information feedback to management regarding the effectiveness of activities affecting the Quality Assurance Program. A comprehensive system of planned and documented audits shall be carried out by appropriately trained personnel to verify compliance with all aspects of the Quality Assurance Program at EERC, and to determine the effectiveness of the Program. Audits shall be conducted by personnel not having direct responsibility in the area being audited.

The EERC Quality Assurance Coordinator, Gale Mayer, is responsible for scheduling, planning, and conducting quality audits, issuing audit reports, retaining audit records, and following up on requested corrective action. His responsibilities are outlined here.

10.1 Audit Scheduling

- Schedules audits such that all quality procedures and elements are periodically audited. Random, unscheduled audits may supplement the regularly scheduled audits when deemed necessary by EERC management.
- Annually evaluates, prepares, and maintains a schedule of audits to be conducted, including follow-up as required, to assure that any deficiencies or adverse conditions are documented and properly evaluated by line management, and appropriate corrective action taken.
- Reviews the effectiveness of the Quality Assurance Program yearly. Utilizing the results, plans where audit emphasis must be placed in the coming year.

10.2 Audit Planning

- Determines the audit objective, scope, general approach, and references criteria necessary to successfully conduct the audit.
- Prepares Quality Audit Planning and Audit Check List to be used while conducting the audit.

10.3 Performing the Audit

At the beginning of the audit, contacts the Institute Manager and the Principal Investigator in charge of each group involved, and explains the purpose/scope of the audit.

10.4 Reporting Audit Findings and Obtaining Corrective Action

- Reports the audit findings to the Institute Manager and each affected Principal Investigator to assure validity of findings and makes recommendations for corrective action.
- Obtains corrective action commitments, as applicable, from each affected Institute Manager and Principal Investigator as appropriate. Assures that the commitments identify actions to be taken, individuals responsible, and completion dates. Also assures that the committed actions are reasonable, so as to preclude recurrence of the discrepancy or significantly reduce the probability of its recurrence.
- Provides an audit report to the appropriate EERC management personnel.
- Follows up on corrective action commitments, as applicable, to assure their timely accomplishment and effective use.
- Yearly publishes an audit status report to the office of the Associate Dean and Director of EERC, the Institute Managers, and the Principal Investigators of each of the groups within EERC.

All EERC personnel are responsible for assisting in the performance audit, in accordance to the following:

- Provide factual data, as requested by the auditor(s), in response to audit report recommendations, and take appropriate corrective action.
- Within two weeks of a written notification of an inadequacy or nonconformance, identify the cause and effect of the nonconformance and make a corrective action statement and a completion date commitment to the auditor. The commitment must be such as to provide a reasonable assurance that the inadequacy or nonconformance will not recur. In the absence of the ability to provide such a commitment, provide one that at least reduces the probability of recurrence of the inadequacy or nonconformance.
- As required, submit special requests for quality audits to the Quality Assurance Coordinator.
- Institutes may conduct their own internal audits as deemed necessary by the Institute Manager. These audits shall not preclude meeting the audit schedule requirements of the Quality Assurance Coordinator.

SECTION 11

PREVENTIVE AND CORRECTIVE MAINTENANCE

The primary objective of the preventive maintenance program is to help ensure timely and effective completion of contract work by minimizing down time due to equipment failure. Specific instructions and responsibilities are detailed for preventive and corrective maintenance.

11.1 Preventive Maintenance Procedures

- The Manager of Pilot Plant Operations is responsible to prepare Preventive Maintenance (PM) Procedures.
- The PM System employs the use of three cards; a PM Work Order, a PM Summary, and a Machine Data Card. See Appendices 11.1, 11.2 and 11.3, respectively.
- The main body of the PM Work Order (Appendix 11.1) contains a basic description of the major item and provides space to list, by organization, the planned maintenance that is required for all components for the major item. Specifically, the work order shall contain:
 - A definition of the specific work activity and inspection required and the requirement for the identification of any equipment, as necessary.
 - A logical sequence of activities. If more room is needed, a continuation sheet will be attached.
 - Specification of inspection points, as necessary.
 - Identification of necessary documentation, including revision, to accomplish the tasks.
 - Identification of materials to be used to accomplish the work.

Once the card has initially been prepared, it becomes a reproducing master for all future Work Orders.

- A method of coding the frequency is employed to indicate operations that are scheduled annually, semiannually, quarterly, bimonthly, or semi-monthly.
- Each week, the rows of PM cards are scanned to identify those that have work scheduled for the following week.

- The cards identified are quickly withdrawn from the file. These are the Master Work Orders used to reproduce shop copies. One copy is made for each trade that has scheduled work to be performed.
- A Work Order is prepared by marking the copy for the trade involved, entering the date of issue, and circling the operations(s) that are scheduled. The Work Order copies are forwarded to the personnel involved to complete the work within the following week. All work performed shall be coordinated by the Operations Group Supervisor.
- After the Work Orders have been prepared for all the operations scheduled for the week, the Master Work Order Cards are refiled in the VISIrecord Tray Unit.
- Prior to refiling, the metal signals are advanced to the week in which the next scheduled work is to be performed.
- At the time of refiling, the PM Summary Card (Appendix 11.2) is withdrawn and entries made for the date that the work was ordered and the frequency codes involved. The second card is then refiled with the red side facing forward. A red dot now appears through the round hole in the front card to indicate that there is an open Work Order, as opposed to a green dot showing through for equipment with no Work Orders outstanding.
- Upon completion of work, the Operations Group Supervisor shall review the Work Order for verification of job completion and acceptability for operation. He shall indicate same by signing and dating the Work Order. Deviations to the Work Order shall be noted in the "Comments" block.
- When the shop copies of the Work Order have been completed, they are forwarded to the PM file. The Operations Group Supervisor posts the date of completion and any remarks to the red side of the second card.
- When the last outstanding Work Order has been posted, the second card is refiled with the green side facing forward.
- The Machine Data Card (Appendix 11.3) contains complete information for each piece of equipment or item that is on the PM program. It supplies manufacturer name, address, phone number, serial and model numbers, a list of accessories, and any other information or manufacturer specifications used to perform an efficient Preventive Maintenance Program. The back of this card will be used to record and specify storage locations for spare parts used on a specific piece of machinery. This card should be filed with the other two PM cards for easy and quick access when further information is needed.

11.2 Corrective Maintenance Procedures

- The plant Deficiency Logs serve as the collecting point for all plant deficiencies.
- Corrective action is to be initiated immediately for items that pose a hazard to personnel and equipment. Corrective actions for problems that do not create any immediate hazard are initiated by placing the maintenance task on the Weekly Work Schedule. Work Orders will be initiated as appropriate.
- The Operations Group Supervisor will be responsible for ensuring that all deficiencies are corrected.
- The Work Order, when used, provides a permanent record of completed corrective maintenance. Work Orders will be retained in the Maintenance File. Corrective maintenance actions will also be annotated in the maintenance log. Complete details will be given if a work order was not used to perform the corrective action.
- An entry will be made on the PM Machine Data Card, indicating the Work Order number, log entry date, and the work performed.

APPENDIX 11.1

PM WORK ORDER

PREVENTIVE MAINTENANCE WORK ORDER				APP	
EQUIPMENT NO.			DATE ISSUED		DIAGONAL VISIBLE MARGIN
HORTON CYLINDRICAL GRINDER, MODEL CTU			11260		
WORK ORDER NO.	REVISION	LOCATION	DATE COMPLETED		
04235	20	Bldg. 13, Line 4, Sta. 11			
NOTE: ODO ENCIRCLED OPERATION NUMBERS ONLY					
OPER. NO.	OPER. CODE	PREVENTIVE MAINTENANCE OPERATION	EST. NO.	STANDARD	
E - ELECTRICAL					
E-1		Dis. Wheel Motor: Check Bearings, Windings, End Play, etc. -- Clean and Replace			
E-212		Dis. Coolant Motor -- Repeat Operation E-1			
E-312		Dis. Headstock Motor -- Repeat Operation E-1			
E-412		Dis. Hyd. & Lube Motor - Repeat Operation E-1			
E-512		Check Lead In Wiring for Breaks, Loose Connections, etc.			
E-612		Check Control Panel, Timers, Connections			
E-712		Check Aux. Terminal Block, Loose Connections			
M - MECHANICAL					
M-114		Remove Oil Filters, Clean and Replace	.25		
M-214		Check V Belts for Wear and Tension	.04		
M-312		Check Table and Taper Adjustments	.50		
M-412		Check Flat and V Ways	.08		
M-512		Check Wheel Feed Screw	.16		
M-612		Check Feed Screw Cast Iron Half Nut	.04		
M-712		Check Feed Screw Ball Bearings for Wear	.04		
L - LUBRICATION					
L-114		Drain Hydraul. Reservoir -- Refill with HC7			
L-214		Drain Spindle Reservoir -- Refill with HC7			
L-314		Drain Ways Reservoir -- Refill with W-8			
L-414		Check Reel Lube Sheets			
F - MISCELLANEOUS					
F-112		Wash Down Machine			
MAIN BODY OF FORM					
SCHEDULING AREA					
VERTICAL VISIBLE MARGIN					

APPENDIX 11.3

MACHINE DATA CARD

[illegible]

SECTION 12

ASSESSMENT OF PRECISION, ACCURACY, AND COMPLETENESS

Quality control analysis conducted during any project performed by EERC is designed to provide a basis for quantitative assessment of measurement data quality. The two aspects of data quality which are of primary concern are precision and accuracy. Accuracy reflects the degree to which the measured value represents the actual or "true" value for a given parameter, and includes elements of both bias and precision. Precision is a measure of the variability associated with the measurement system. The completeness of the data will be evaluated based upon the valid data percentage of the total tests conducted.

Because of the large amount of instrumentation, e.g. thermocouples, pressure transducers, flow meters, etc., on each test unit, it is not practical to assess the precision and accuracy of each piece of instrumentation separately. On each system as a whole, precision and accuracy are measured using systems and checks such as redundant measurements, standard runs, and duplicate center points. The precision and accuracy are guaranteed by the quality standards outlined in other sections of this manual, including calibration procedures, data reduction standards, internal quality control checks, and quality audits. Specific measures of precision, accuracy, and completeness are included in this section.

- Data quality, including precision, accuracy, and completeness will be reported for each test in accordance to the quality procedures of Section 8.
- Statistical methods shall be used, where applicable, to define precision and accuracy of each individual point. This shall include the average, minimum, and maximum values for each point and the standard deviation.
- Results from standard runs will be documented to provide an indication of the precision and accuracy. Values from current standard runs shall be compared to historical data.
- Precision shall be reported in the test report for any work that includes replicated center points. The precision shall be reported using average, minimum, and maximum values and the standard deviation.
- Results from instrument calibration, performance audits, and internal quality control checks will be documented and used as an indication of precision and accuracy, when applicable.

SECTION 13

CORRECTIVE ACTION

It is the purpose of this section to specify a system for informing appropriate personnel of instances of nonconformance to quality requirements and to initiate corrective actions. This system encompasses all the activities in the project. Its operation is the responsibility of the Principal Investigator of the project. It is the responsibility of technicians and research engineers to bring any discrepancies to the attention of the Principal Investigators. These discrepancies encompass all activities from the initiation of a new project, through the actual experimentation on either a bench or pilot scale, to the final reduction of the data and reporting of the test results. The general procedures to be followed are outlined in this section.

- A Corrective Action Request (CAR) can be initiated to cause an investigation of the cause of a discrepancy resulting in the recommendation of corrective action so as to avoid the recurrence of the discrepancy.
- The Corrective Action Request is made using the "Deficiency Log" form. The CAR is then forwarded to assigned personnel where an investigation is performed to detect the cause of the discrepancy, and action taken to prevent recurrence. The procedures to be followed for deficiency control of the Corrective Action are described below:
 - Any EERC personnel can initiate the deficiency report. This will be submitted directly to the Principal Investigator and is accomplished by using a "Deficiency Log" (Appendix 13.1), which will be available to all personnel.
 - The Principal Investigator will assign corrective action to the technicians for any pilot-plant-related deficiencies and will handle other deficiencies as appropriate. All deficiencies will be logged in the Deficiency Log.
 - The Principal Investigator, or designated alternate, will have a period of no longer than 24 hours to recommend action on an item or assign responsibility for corrective action.
 - The Principal Investigator will initiate corrective action by assigning appropriate personnel to the task.

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- Completion of the Corrective Action will be noted in the Deficiency Log Master Index (See Appendix 13.2) located in the front of the Deficiency Log.
- The Deficiency Log will be kept as a permanent record and filed by year in the Operations file.

APPENDIX 13.1
DEFICIENCY LOG

Form 1041

[illegible]

(60% of original size)

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APPENDIX 13.2

DEFICIENCY LOG MASTER INDEX

Form 105
Page of

PILOT PLANT COMBUSTION FACILITY DEFICIENCY LOG SHEET

DEFICIENCY NUMBER	DATE ENTERED	ENTERED BY	DEFICIENCY DESCRIPTION	ACTION TAKEN TO CLEAR DEFICIENCY	CLEARED BY	DATE CLEARED

(60% of original size)

SECTION 14

QUALITY ASSURANCE REPORTING

The purpose of this section is to establish the responsibilities and procedures for the generation, identification, indexing, filing, storing, maintenance, retrievability, and disposition of quality records for the EERC. It is the policy of the EERC that sufficient quality records shall be generated, collected, and retained to provide documentary evidence of compliance with design, contractual, regulatory agency, and quality assurance program requirements for each EERC Program/Project.

- Quality records will typically include:
 - Results of reviews, inspections, tests, and monitoring of work performance and material analysis;
 - Records for certification of personnel and qualification of procedures and equipment;
 - Drawings and change notices;
 - Specifications/procedures and change notices.
 - Procurement documents;
 - Calibration procedures and data;
 - Operation, test, and maintenance logs;
 - Results of performance and system audits; and
 - Significant QA problems and recommended solutions.
- Records collection and retention responsibilities are defined in Appendix 14.1.
- Controlled documents are those authorized and approved documents whose distribution and revisions are controlled. These documents define the technical requirements and functional and physical characteristics of a facility, system, or component of EERC projects. These include, but are not limited to, drawings, specifications, procedures, technical reports, operating requirements, or other software prepared as a part of the design disclosure for use in the procurement, assembly, construction, testing, preventive maintenance, and operation of hardware systems used in testing by the EERC. Appendix 14.2 provides a listing of those documents that are to be controlled under the Document Control System and those which are uncontrolled.

- Procedures for maintenance of Quality Records are discussed below
 - All approved documents will be released for publication, printing, and distribution through the Office Services Department. Distribution lists, log books, and card files will be maintained by Office Services for all released documents.
 - The Principal Investigator provides the technical direction for all work associated with his work package and is responsible for the accuracy of all information generated, compiled, and distributed pertaining to that work package.
 - The originals of EERC documents will be maintained by the Office Support Group unless otherwise authorized. It will be the responsibility of the Administrative Officer of that group to see that these documents are entered into the Document Control System (DCS) center.
 - All Engineering Design Files (EDF) will be assigned to the DCS and master files maintained at the DCS center. All completed written technical information performed in support of a design shall be included in the EDF. This information consists of notes, ideas, comments, analysis, performance curves, etc.
 - When a change is required to a released document, the originator initiates a Document Revision Request (DRR). After the originator has defined the changes to be made, the individual then obtains a serial number from DCS for tracking. The DRR is routed for review and approval and shall contain the same signatures as the patent document it changes, unless otherwise authorized. Upon approval, the DRR is released through DCS for updating of change records, distribution, and filing.
 - Upon completion of a Technical Report (TR), the DCS center will print and distribute the report. It will be the responsibility of the author to supply the DCS center with a distribution list. The DCS center will file the original. A patent release will be required for any internal TR that will be distributed outside of EERC.
 - All original data obtained from a specific facility will be stored by facility in the DCS. No original data will be transmitted to the customer unless properly annotated and approved by the Institute Director.
- Responsibilities related to the Document Control System are as follows:
 - The Institute Managers are ultimately responsible for the implementation and maintenance of the EERC Document Control System.

- The Administrative Officer of the Office Support Group is designated as the person in charge of the DCS. Specifically, responsibilities outlined for file maintenance, logging, document distribution, and storage are delegated to this individual.
- All personnel in the EERC are responsible for maintenance of the DCS by proper logout of all material obtained from the DCS. No original documents are to leave the EERC premises unless authorized by the Institute Manager.

APPENDIX 14.1

DOCUMENTATION AND RECORDS RELATING TO QUALITY-- A GUIDE TO RETENTION RESPONSIBILITIES

<u>DOCUMENT/RECORD</u>	<u>RETENTION RESPONSIBILITY*</u>
1. Program/Project Organizational records, such as contractual documents and administrative procedures.	C
2. Design disclosure and support documents, such as drawings, specifications, calculations, design, analysis, and design review reports.	B
3. Completed Work Orders and other documents showing quality status, such as Calibration Records, P.M. Records, and SO Test results	E
4. In-service and in-process inspection records.	E
5. Operating records (including operating logs), start-up/ shutdown checklists, FOP's and EOS's	A/B
6. "As-constructed" or "as-built" drawings certified as to correctness by one or more qualified engineers competent in the field of design.	A/B
7. Sample storage and inventory records.	A/B
8. Experiment Data Files, including published data reports, analysis lab results, data tapes or disks, and sample handling and storage records.	A/B
9. Results from performance and systems audits.	D
* <u>Retention Responsibilities Code Letters</u>	
A. Principal Investigator	
B. Research/Project Engineer	
C. Institute Manager	
D. EERC QA/QC Officer	
E. Operations Group Supervisor	

APPENDIX 14.2

LIST OF CONTROLLED DOCUMENTS

Drawings
EERC Quality Assurance Plan
Facility Operating Procedures
Technical Reports
Test Procedures
Experimental Operating Specifications

LIST OF UNCONTROLLED DOCUMENTS

Document Change Notices
Document Revision Requests
Engineering Design Files
Experiment Data Files
Program Schedules
Unusual Occurrence Reports
Viewgraphs
Weekly Planning Meeting

NOTE: This list of documents is not meant to be all inclusive. Others may be added as needed.

APPENDIX H

UND OCCUPATIONAL SAFETY AND ENVIRONMENTAL HEALTH POLICY

Printed on Recycled Paper!

OCCUPATIONAL SAFETY AND ENVIRONMENTAL HEALTH POLICY, U.N.D.

The University places the safety and well being of its students, faculty, staff and visitors above all other considerations. It is the policy of the University to provide and maintain safe and healthful working conditions. All faculty, supervisors and other persons in authority are enjoined to provide for safety in the environment and operations under their control. The University subscribes to the recognized national standards of safety as defined in published materials of the North Dakota Worker's Compensation Bureau, the State Fire Laws, and the Federal Occupational Safety and Health Act (OSHA). The Occupational Safety and Environmental Health Office has been assigned the responsibility of administering the University's safety program.

Reporting of Injuries, Accidents or Hazards — All serious accidents occurring on campus, resulting in personal injury to anyone, a fire, explosion or any serious damage to University property must be reported immediately, by phone, to the University Safety Office. Phone: 777-3341 (day) or 777-3491 (night). Follow-up written reports will be required. A person receiving any injury shall report this without delay to the person in charge, if possible, or see that he/she is advised. The person in charge, when notified of the injury/accident, shall set any accident preventive measures in motion at once and shall be responsible for seeing that a written report is filled out by the injured (or on his/her behalf) and is sent to the University Safety Office as soon as possible.

Injury Forms Required — (1) If the person having an accident is an employee of the University and his/her accident results in an injury that requires medical treatment, the injured employee should fill out a Worker's Compensation Accident Report form, which is obtained from the treating physician or Safety Office. It is then sent to the Worker's Compensation desk in the Payroll Office for processing. One copy will be sent to the University Safety Office after processing. If prevented from filling out the form by the seriousness of the injury, the person in charge will have the form prepared. In addition a "University Incident Report" must be completed and sent to the Safety Office. (2) If the accident results in an injury that does not require medical treatment, the person fills out a "University Incident Report" form only. Blanks can be obtained from the Safety Office. The injured employee gives the completed form to the person in charge who will add his/her comments, sign the form and forward it to the University Safety Office for processing. (Do either (1) or (2) above — not both.)

Reporting and Eliminating Unsafe Practices and Hazardous Conditions — Near accidents, hazardous conditions and practices must also be promptly reported by the observers of them to the person in charge. If the person in charge cannot resolve the problem, advice from the Safety Office should be requested. It may appear that some near accidents, hazards and hazardous practices are of such a trivial nature that no report on them is necessary. If the report of the near accident or hazard can be of service in detecting and eliminating an unsafe condition, a report should be made.

Fire — Every staff member should know: (1) the location of the fire alarm nearest to your office and to the various instructional rooms that you use, (2) The location of the nearest fire extinguisher and know how to use it, and (3) The various exit possibilities from your office and from each room in which you have classes. It is advisable to have more than one designated exit in the case of such an exit being inaccessible at the time of the fire.

If a fire is detected:

1. Activate the fire alarm system for the building. If the building doesn't have an alarm system, then have the alarm passed by any means available.
2. Evacuate the building of all individuals, to outside or to a safe area within the building.
3. Call 9-911 and specify the exact location of the fire. All fires must be reported, no matter what size.
4. "A-B-C" fire extinguishers available in university buildings can be used on all types of fires, but never endanger your life using them. Even if the fire has been put out with fire extinguishers, the Fire Department still must be called to ascertain complete extinguishment.

When you hear the fire alarm:

1. Consider the alarm to be a warning of a genuine fire and not merely a drill, **EVACUATE**.
2. If you are teaching, instruct individuals to leave the building as quickly as possible, be the last out.

3. Have the physically handicapped assisted by others, check all rooms.
4. Assist police or firemen by relating to them of any special chemicals, biological or radiological hazards involved.

Fire-Safety Exit Drills — The purpose of exit drills is to insure familiarity and safe use of all available egress pathways. Proper drills insure orderly egress without undue panic, should a major catastrophe occur. Speed in vacating building, while desirable, is not in itself the objective and should be secondary to the maintenance of proper order and discipline.

Fire-Safety exit drills should be held with sufficient frequency to familiarize all occupants with drill procedures for the specific facility. It is suggested that at least two drills per semester be executed. It is suggested that such fire drills be scheduled during the months of September, November, February and April. All fire drills will be scheduled at the discretion of the person in charge of the facility.

ALL DRILLS MUST BE COORDINATED THROUGH THE SAFETY OFFICE.

Accident/and Worker's Compensation Claims Investigations — All accidents must be investigated to determine the cause so as to avoid any future incidents. Accidents involving minor damage or injuries requiring only first aid will be investigated by the person in charge. After the investigation, the "Supervisor's Analysis" section of the Incident Report form must be completed and the form must be submitted to the Safety Office. In the case of more serious property damage or injury requiring medical attention, the University Safety Office will conduct the investigation. The University Safety Office is designated the Worker's Compensation claims investigator for the University and will investigate all claims prior to forwarding of such claims to the Bureau in Bismarck.

Evidence Preservation — In the case of fires and accidents of an obscure origin, none of the evidence should be disturbed until an investigation by the proper authorities is made. Naturally, all steps necessary for the protection of life and property take precedence over preservation of evidence.

ENVIRONMENTAL HEALTH

RADIATION SAFETY

The University has established a Radiation Safety Committee to assist users of radioactive material and radiation-producing machines to comply with all federal, state and university regulations which pertain to ionizing and non-ionizing radiation. The primary responsibility for radiation safety rests with the individuals utilizing radiation. The Radiation Safety Officer, located in the Safety Office, has the responsibility of administering the radiation safety program.

Any member of the University who desires to acquire, use, possess, radioactive material and/or ionizing radiation producing equipment, must be authorized and licensed by the University. Applications to obtain a license can only be acquired through the Safety Office.

HAZARDOUS MATERIALS AND CHEMICAL WASTE ACTIVITIES

Faculty and staff who use toxic chemical compounds and have hazardous chemical waste must follow specific Federal Environmental Protection Agency and Department of Transportation methods and disposal. The Occupational Safety and Environmental Health Office is designated the coordinating agency for all hazardous material transport and chemical waste disposal for the University. A guidebook is available from this office which outlines the required procedures that the University must follow to be in compliance.

All hazardous materials (chemicals, etc.) are to be procured, stored, and handled in compliance with existing federal, state, and University regulations. The Safety Office acts in an enforcement capacity at the University and is available for consultation in the proper use, storage, and disposal of all chemicals and to assure compliance with the laboratory standard (chemical hygiene plan).

Asbestos — The Safety Officer serves on the University Asbestos Team and conducts investigations and maintains the required records.

The University Safety Office is an accredited Asbestos Training Center. This is accomplished through the Environmental Training Institute which is a branch of the Safety Office. The Institute (ETI) coordinates training opportunities related to all aspects of Occupational Safety and Environmental Health.

University of North Dakota
Occupational Safety and Environmental Health

Injured Worker Claims Management SP80.10

I. PURPOSE:

Claims Management is necessary to promote employee health, to prevent injuries, to assure timely and appropriate medical care, and control the rising costs of Workers Compensation at the University of North Dakota.

II. DEFINITIONS:

For the purposes of this section, definitions as found in the *NORTH DAKOTA WORKERS COMPENSATION LAW AND CRIME VICTIMS REPARATIONS ACT (1991 EDITION)* shall be used.

III. POLICY:

- A. The Director of Personnel shall be responsible for the Claims Management program of the University of North Dakota. In cooperation with the Director of Safety, he will conduct all necessary investigations of work related accidents/injuries and reports of unsafe acts or conditions.
- B. The Director of Personnel shall work with a Claims Management Committee to review claims. This Committee shall meet as needed. The members of this committee shall be as follows:
 - 1. Operations Representative
 - 2. Personnel Representative (Committee Chair)
 - 3. MCRHC Representative
 - 4. Affirmative Action Representative
 - 5. Safety Office Representative
- C. Upon review by the Claims Management Committee (CMC), or by the Personnel Director, the Committee may request that the Workers Compensation Bureau require a further evaluation in accordance with NDCC 65-05-28. The request for independent medical examination for the purpose of review, will be made by the Director of Personnel.
- D. All information and materials related to a particular case shall remain strictly confidential as required by law.

IV. PROCEDURES:

A. MEDICAL REFERRAL/REPORTING

- 1. Each Employee shall report to their Supervisor as soon as possible, all work related injuries requiring medical attention by a Health Care Provider in accordance with section 8.2 of the *UND Staff Personnel Policy Manual*.
- 2. The Supervisor shall report each work related injury to the Safety Office within 24 hours of notification by the employee or at the beginning of the next regularly scheduled work day. This notification may be completed by telephone to meet the 24 hour notification requirements, but must be followed with a completed "University of North Dakota Incident Report" within 3 working days.

The "University of North Dakota Incident Report" must be completed by the injured employee only, whenever possible. The Supervisor is required to complete the section for supervisors.
- 3. When medical assistance is required as a result of a work related injury, the immediate Supervisor or designee is encouraged to accompany the injured worker to the medical facility rendering service.
- 4. In all cases, the worker or person accompanying the worker to the medical facility shall notify the medical facility that this is an injured UND employee, and may assist with completion of required paperwork.
- 5. Employees are encouraged to use Student Health Services or the UND Family Practice Center for initial treatment unless emergency medical attention is necessary. If emergency medical attention is

necessary, the ambulance shall be summoned or the individual transported directly to emergency services.

6. It is encouraged that all musculoskeletal injuries be referred to the UND Medical Center Rehabilitation Hospital and Clinics (MCRHC) for evaluation and follow up as directed by the examining physician.

B. BACK TO WORK/WORK HARDENING

1. The Medical Provider will evaluate the injured worker and a rehabilitation plan shall be executed for return to work as soon as medically safe.
2. Modification of the job and review of job descriptions shall be accomplished by the Personnel Office, Rehabilitation Professional Staff and the department head. A back to work plan will be coordinated with the Supervisor.
3. The UND Personnel Office, Safety Office and medical provider will monitor the progress of the injured worker in the Back to Work program.

C. WORKING CONDITIONS

1. A review shall be conducted by the UND Safety Office when it is suspected or reported that an unsafe act occurred or unsafe condition exists.
2. If an unsafe act occurred which resulted in the injury, the Supervisor responsible shall be notified so that appropriate corrective action may be taken.
3. If an unsafe condition exists, work shall stop immediately until the unsafe condition is corrected. The Supervisor responsible shall be notified of said condition.

D. OTHER

1. Weekly progress notes will be maintained locked (as required by ADA) in the injured workers medical file by the Safety Office.

V. TRAINING

- A. Training programs shall be developed to prevent injuries. These training programs shall be developed by the Personnel Office and the Safety Office and shall be presented by designated staff.
- B. All UND employees shall be allowed one hour per month for Safety Training opportunities. These events shall be planned and coordinated in advance so that planning of work schedules can be accomplished.

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*Energy &
Environmental
Research
Center*

APPENDIX I
UND POLICE DEPARTMENT SERVICES

POLICE DEPARTMENT, UNIVERSITY OF NORTH DAKOTA

Statement of Purpose — The University Police Department is a nationally accredited police department. All officers are certified law enforcement officers for the State of North Dakota and attend classes to maintain their certification and proficiency. The University Police department is a subdivision of the University of North Dakota Operations Division. The department is responsible for providing the University community, students, faculty and staff with a safe, secure and orderly environment in which to live, learn and work. This department accomplishes this responsibility by providing all related police and community relations services and by being concerned with the safety and general welfare of the University community.

Services:

Twenty-four Hour Security Desk Operations — All emergencies, please dial 911 (from any 777 prefix dial 9-911). For non-emergency police and security related calls dial 777-8491, you will receive immediate response/assistance for your calls. Remember that the timely reporting of crime is an essential factor in criminal apprehension and crime resolution.

Investigation — The University Police Department conducts follow-up investigation on all complaints received by this agency. It is the investigator's responsibility to assure that, where possible, complaints are followed-up in an appropriate and timely fashion.

Traffic Accidents — The Department is responsible for the investigation of all traffic accidents occurring in the University's lots and on the public streets in and around the University property.

Office Hours — Office hours are from 8 a.m. to 4:30 p.m.

Community Service Presentations — Officers are available to give presentation to the university community on any police related subject that may also be of interest to the community, as in presentations on rape awareness, child abuse/neglect, spouse violence, alcohol, drugs, crime prevention and similar topics.

After Hours and Holiday Openings of Buildings — The opening of outside building doors for classes, lectures and other authorized University activities is performed by this department. Requests for this service must be made through the Assistant Registrar's Office (777-2711) for the purpose of reserving space for classes or the Information and Facilities Coordinator (777-8928) for the purpose of reserving space for special academic and non-academic programs, testing, dances, movies, lectures, etc. Upon receipt of written authorization from either of these agencies, building opening will be accomplished.

Campus Patrol and Plant Surveillance — University Police patrol the campus, its outlying properties, and perform building and security checks on a 24-hour-a-day basis. Reacting, when necessary, or upon request, to incidents, situations, or circumstances which are detrimental to the well-being and safety of the University community.

Crowd Control and Public Safety Services — University Police provides crowd control and public safety services for University related or sponsored activities as required or requested that are conducted on, or in campus facilities.

Crisis Response — The department works closely with the University Counseling Center and Crisis Response Team. The after hours telephone number for the Crisis Team is 777-8491, this will put you in touch with our department. Officers will be the first to arrive on the scene in crisis situations to stabilize the crisis prior to the arrival of the Crisis Response Team. If the situation is of a non-violent nature and contact with a member of the Crisis Team is all that is desired, we will be able to make that contact quickly and efficiently for you.

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**Energy &
Environmental
Research
Center**

APPENDIX J
UND POLICY MANUAL FOR STAFF EMPLOYEES

Policy Manual
for
Staff Employees

Reprinted December, 1991

University of North Dakota

An Equal Opportunity Employer

RECEIVED
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North Dakota State Board of Higher Education

Staff Personnel Policy Manual

1. INTRODUCTION

1.1

The University of North Dakota is a state institution of the North Dakota University System established for the people of the state. It is governed by the State Board of Higher Education whose authority derives from the state constitution.

1.2

Every staff employee of the institution has a part in the educational, research and service effort of the institution. It is an effort which can best be carried out within a harmonious employer-employee relationship. As an Equal Opportunity Employer, the institution has adopted the policy of providing equal employment opportunities without discrimination to all applicants and employees regardless of race, religion, color, national origin, age, sex, physical or mental handicap, status with regard to marriage or public assistance. To this end the institution endeavors to provide working conditions and compensation based on fair and equitable standards.

1.3

An employee, or a group of employees, has the right to discuss with supervisors or other appropriate officers any condition of employment without discrimination.

1.4

This manual is not intended to and does not constitute a contract between the State Board of Higher Education and its employees. None of the provisions contained herein are interpreted as contractually binding upon the State Board of Higher Education. The State Board of Higher Education retains the right to alter any or all of the terms of this manual whenever it elects to do so.

2. APPOINTMENTS

2.1

Staff Employee — A person employed primarily for work other than teaching or research.

2.2

Regular Staff Employee — A person who satisfactorily completes a probationary period (See Section 4) and is appointed to a continuing position on a basis of 17½ or more hours per week. The policies and benefits included in this manual shall

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To All Staff Employees...

The purpose of this publication is to make you aware of the policies and procedures governing your employment as established by the North Dakota Board of Higher Education.

Knowledge of the contents of this handbook will assist both you and the administration in providing better services throughout the entire University.

Should you have questions concerning these policies and procedures, please contact the Office of Personnel Services.

Thomas J. Clifford
President

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apply to such persons except where specifically excluded by statute or these policies.

2.3

Temporary Staff Employee — A person employed in a position of short duration or intermittent in nature, or in a position working less than 17-1/2 hours per week. The policies and benefits included in this manual shall not apply to temporary employees except as noted. A temporary staff employee may be terminated at any time with or without cause.

2.3.1

Persons changed from temporary to regular status on a continuing basis shall be credited with the number of days served as a temporary employee to a maximum of three full-time equivalent months when establishing annual and sick leave benefits as a regular employee.

2.4

Full-time Staff Employee — A person employed on a regular or temporary basis for 40 hours per week.

2.5

Part-time Staff Employee — A person employed on a regular or temporary basis for less than 40 hours per week.

3. QUALIFICATIONS FOR EMPLOYMENT

3.1

The Institution will employ persons on the basis of merit without unlawful discrimination due to race, religion, color, national origin, age, sex, physical or mental disability, status with regard to marriage or public assistance.

3.2

Appropriate tests may be required to evaluate qualifications of an applicant for a position.

3.3

Before employment, an applicant may be required to complete a medical statement form and may be required to have a physical examination. All such examinations will be provided at the expense of the institution. Failure to meet the physical requirements for a position shall disqualify the applicant.

3.4

Candidates who have not reached the age of 16 are ineligible for regular employment.

3.5

Each person recommended for regular appointment must have an application for employment on file with the Office of Personnel Services.

4. PROBATIONARY PERIOD

4.1

New employees are in a probationary status until a satisfactory evaluation is completed at the end of the initial six months of employment. During such period, the employee may be terminated with one week's notice with no right to appeal. Employees who elect to resign during the probationary period are requested to give one week's notice. Where a union agreement exists, the terms of that agreement shall prevail for the duration of the existing agreement.

4.1.1

Extension of the original probationary period for a specific period of time not to exceed six months may be recommended by the supervisor to the Office of Personnel Services. The reasons for the extension shall be written, signed by the supervisor, a copy given to the employee and the Office of Personnel Services.

5. PAY POLICY

5.1

All classified positions (See Section 14) are assigned to a salary range with a stated minimum and maximum salary as established by the State Central Personnel Division.

5.1.1

All changes in salary are subject to approval by the Board of Higher Education through submission of annual payrolls, or, by the Chancellor, North Dakota University System through submission of "B" routines.

5.1.2

New appointees are normally hired within the first quartile of the salary range. New employees with substantial, directly related experience, or in positions which the market demands are demonstrative, may be hired above the first quartile with proper administrative approval.

5.1.3

Upon successful completion of the initial six month probation period an employee is eligible for an increase of three percent. An employee evaluation form must be completed before the probationary adjustment is approved.

5.1.4

An Increase normally not exceeding five percent, may be granted based on a documented reassignment or change in the position's duties and responsibilities independent of any change in classification. These additional duties and/or responsibilities may not be used again to justify a reclassification salary increase.

5.1.5

An increase resulting from a change in a position's classification will be to the minimum of the new pay grade if the employee has not successfully completed the probation period, or to the probation level if the employee has successfully completed the probation period.

5.1.6

An employee who moves from one position to another position, and the new position has a higher pay grade assigned, is eligible for an increase of five percent or to the minimum of the position, whichever is greater. Upon successful completion of the three month training period, the employee may be eligible for an increase of three percent. An employee who moves from one position to another, and the new position has the same pay grade assigned is not eligible for an increase. An employee who moves from one position to another, and the new position has a lower pay grade assigned may be subject to a corresponding salary reduction.

5.1.7

An increase intended to mitigate an internal institution inequity or a documented, proven, external inequity should only be considered for extreme inequities. Increases are normally limited to ten percent and should exceed five percent only in the most extreme situations. Institutions are required to maintain documentation:

1. Defining the inequity.
2. Explaining what created the inequity.
3. Ensuring that this action will NOT create additional inequities.
4. Explaining if any non-monetary alternatives have been considered.
5. If external, regarding all relevant, available market data justifying the action.

5.1.8

An increase of five percent, or generally not exceeding the midpoint of the temporary position, may be given with proper administrative approval to an employee serving in an interim position. Increases should not be given for interim periods of less than 30 days. Employees may not retain the higher compensation level for more than 30 days after the interim period ceases to exist.

5.2

Pay day as determined by the institution shall be the last day of the month or the 15th and last day of the month; however, if the 15th or the last day of the month is a Saturday, Sunday, or holiday, the preceding work day shall be pay day.

5.3

The institution does not grant automatic raises. Salary progression within the established range shall be based on merit, tenure of service, availability of funds and factors pertinent to job performance deserving recognition. A merit increase

may be denied an employee if the job performance does not consistently meet required standards. All salary changes must receive proper administrative approval before they go into effect.

5.4

Compensation in Lieu of Pay — Compensation in the form of meals, living quarters, etc., or an allowance in lieu thereof shall be considered pay for salary comparison purposes. Reimbursement for traveling expenses including mileage, meals, and lodging expenses that result from assigned duties away from the normal conduct of business shall not be considered as pay for salary comparison purposes.

5.5

Outside Employment — An employee may accept employment outside the institution where such employment does not interfere or conflict with the employee's regular duties or responsibilities and which is outside the regular working hours.

6. ANNUAL LEAVE

6.1

Annual leave with pay is earned by employees for the purpose of freeing them from their regular duties to spend time in rest and recreation. New employees may not use accumulated annual leave until they have satisfactorily completed their probationary period.

6.2

Institutional operations govern annual leave periods. Consideration is given first to the convenience of the administration, departmental needs, then the employee's departmental seniority and finally to employee's preference. Annual leave is computed on the basis of the employee's hours/week and months/year.

6.3

Annual leave with pay for regular employees is earned on the basis of continuous service from date of employment as follows (all references to days pertain to working days):

- 1st through 3rd year - 8 hours per month (1 day per month)
 - 4th through 7th year - 10 hours per month (1-1/4 days per month)
 - 8th through 12th year - 12 hours per month (1-1/2 days per month)
 - 13th through 18th year - 14 hours per month (1-3/4 days per month)
 - Over 18 years - 16 hours per month (2 days per month)
- Years of service shall be computed from employment anniversary date.

6.4

All full-time, 12-month administrative and professional personnel, such as Vice Presidents, Deans, and other chief administrative officers, responsible for a major division of the institution, and reporting directly to a President or a Vice

President, are entitled to 24 working days annual leave each year to be taken at the convenience of the administration.

6.5

Regular full-time employees earn leave as based on the schedule in 6.3. Annual leave for regular part-time employees is earned on a prorated basis. Accumulated annual leave, up to 30 working days or 240 hours (or the equivalent on a prorated basis for regular part-time employees) shall be carried forward on January 1 of each year.

6.6

Regular full-time employees eligible to accumulate leave must take 40 hours (or the equivalent on a prorated basis for regular part-time employees) five days of annual leave per year except for the year during which they were hired.

6.7

When a holiday occurs during annual leave, the holiday is not considered a day of annual leave.

6.8

Regular employees terminating employment must be paid for earned unused annual leave subject to all approved payroll matched reductions/deductions. Unused annual leave shall include any leave carried over from the previous year and all accrued leave up to the date of termination. Proper termination notice must be given and any unearned annual leave taken shall be deducted from the employee's last paycheck.

6.9

In case of death, payment of all earned, unused annual leave shall be paid according to Sec. 34-01-12 of the North Dakota Century Code.

6.10

Department heads are responsible for notifying the Payroll Office in writing of the amount of annual leave taken by their employees.

6.11

Accrued annual leave for employees previously employed with other North Dakota Institutions or agencies may be transferred to institutions under the State Board of Higher Education according to agreements between the employee and institution. If re-employment occurs within one calendar year, the re-employing institution shall credit the employee with prior years of service from any state agency in computing earned annual leave.

7. SICK LEAVE

7.1

Sick leave, including maternity, is a benefit granted by the institution to all regular employees and is not a benefit considered to be earned by the employee such as annual leave. It is an insurance benefit allowing employees to build a reserve of days they can use for their extended illnesses. Sick leave may be used by an employee to tend to the needs of certain family members who are ill or to

assist them in obtaining medical services, or other services related to their health or well-being. Eligible family members include the employee's spouse, parent (natural, adoptive, foster, and step-parent); child (natural, adoptive, foster, and step-child); and any other family member who is financially or legally dependent upon the employee or who resides with the employee for the purpose of the employee providing care to the family member. Sick leave used for these purposes shall not exceed forty (40) hours per calendar year. Employees who use sick leave are responsible for informing their supervisors prior to the start of their scheduled work period. (See Section 22 for Family Leave)

7.1.1

The employing department may refuse to authorize payment of sick leave without satisfactory medical verification as deemed necessary by the department head.

7.2

Sick leave is granted on the basis of continuous service from date of employment for all regular employees.

7.3

Sick leave for full-time regular employees is granted on the basis of eight hours per month of service. Sick leave for regular part-time employees working 17½ hours or more per week is granted on a prorated basis. Sick leave accumulation is unlimited.

7.4

Sick leave may be granted to employees who become ill while on vacation provided satisfactory medical proof of such illness is submitted.

7.4.1

When a holiday occurs during a paid sick leave the holiday is not considered a day of sick leave.

7.5

Sick leave taken in advance of accumulation shall be deducted from the employees last paycheck.

7.6

An employee who accepts a retirement allowance under NDCC Chapter 39-03.1, 54-52, 15-39.1, or under the alternative retirement program provided by the State Board of Higher Education or an employee who leaves employment for whatever reason with at least ten years continuous employment, is entitled at the time of retirement or leaving to a lump-sum payment equal to one-tenth of the pay attributed to the employee's unused sick leave accrued under this section. The pay attributed to the accumulated, unused sick leave must be computed on the basis of the employee's salary or wage at the time the employee retires from employment with the state.

7.7

At the discretion of the department head and the concurrence of the Vice President for Finance, an employee may be granted sick leave, not to exceed 16

working days, in advance of the accumulation thereof.

7.8

Employees will be credited with hours or days worked for any time when they are on sick leave.

7.9

Department heads are responsible for notifying the Payroll Office in writing of the amount of sick leave taken by their employees.

7.10

Accrued sick leave is transferable from any state agency to the employing institution if employment with the institution occurs within one calendar year of termination of service with the state agency.

8. WORKER'S COMPENSATION

8.1

All employees are protected by Worker's Compensation against accidental injuries or occupationally-incurred illness in the performance of their official duties.

8.2

All on-the-job accidents and injuries or occupationally-incurred illnesses must be reported immediately to the employee's supervisor and the Payroll office. This is for the protection of the employee, as well as the institution and is required by the Worker's Compensation Act of North Dakota.

8.3

In case of absence due to illness or injury, for which Worker's Compensation time-loss benefits are received, sick leave pay may be utilized to the extent of the difference between such benefits and the employee's regular salary. The employee may elect to use Worker's Compensation only or use it in combination with sick leave and/or annual leave. However, the employee's leave account shall only be charged that percentage of time which corresponds to the percentage of salary that the institution shall pay. Upon using all accrued benefits, an employee will be placed on leave without pay for the remainder of the recovery period. The total time-loss payment shall not be more than the employee's regular pay.

9. INSURANCE

9.1

The institution makes available to regular employees certain types of group insurance expressly for the purpose of insuring personal security planning. Such coverage may include medical insurance, life insurance and disability insurance.

10. RETIREMENT

10.1

North Dakota law requires regular employees who are 18 or more years of age

and who work 20 hours or more per week for five or more months per year to participate in the Public Employee's Retirement Plan.

10.1.1

Employees classified in exempt positions will participate in the TIAA/CREF retirement plan within the same guidelines noted in Sec. 10.1.

11. WORK WEEK

11.1

The work week shall be from 12:01 a.m. Sunday through 12:00 midnight Saturday unless otherwise established for individual positions or job classifications. Employees shall have a basic work week of five days or 40 hours.

12. OVERTIME

12.1

Time actually worked in excess of 40 hours per week shall be considered overtime and must be compensated at the rate of time- and-one-half, except for approved time-off plans for overtime compensation or employees who are exempt under wage and hour laws.

12.1.1

In establishing a 40 hour work week, leave with pay and holidays will be counted as hours worked.

12.2

Overtime hours may be approved on the basis of emergency circumstances or when it is impractical to maintain an additional temporary work force adequate to handle peak loads during regular hours. Overtime hours must be authorized by the department head.

12.3

Overtime work shall be assigned on an equitable basis.

12.4

An employee called back for emergency service after completing the regular day's work shall receive compensation in accordance with the union/institutional agreement in effect or at the rate of time- and-one-half. Guaranteed minimum pay for call-back will be two hours at time-and-one-half.

13. EMPLOYMENT OF RELATIVES

13.1

No head of any executive or administrative department, either elective or appointive, of this state, shall appoint his wife or her husband, as the case may be, son, daughter, brother, or sister, to any position under the control or

direction of said head of such department. (See Nepotism, ND Code 44-04-09).

14. POSITION CLASSIFICATIONS

14.1

The State Central Personnel Division is responsible for managing a classification plan providing a complete inventory of all staff positions and an accurate specification for each class of work. The plan standardizes titles, each of which is indicative of a definite range of duties and responsibilities, and assigns pay ranges.

14.1.1

Within each class, job duties may vary depending on need. Duties and responsibilities assigned a position may change somewhat without changing the class or pay grade.

14.2

The class title of each position is the official title which is used on payroll records, budget documents, personnel and other official records, and publications. The department may use functional titles for other purposes.

14.3

The Office of Personnel Services is responsible for maintenance of the institution's classified positions. Before a new position is established it shall be classified by the Central Personnel Division and receive proper administrative approval. Reclassification of a position will be reviewed at the request of the employee, department head, or by the Director of Personnel Services, and forwarded to the Central Personnel Division when the criteria for submission as outlined in Chapter 3 of the North Dakota Personnel Policies has been met.

14.4

If, after a classification review by the Central Personnel Division, an employee or agency appointing authority perceives that a classification inequity exists, an appeal may be initiated by the proper completion and submission of forms available from the Office of Personnel Services.

14.4.1

The appeal must be postmarked no later than 15 working days from the date on which the Central Personnel Division's classification response was mailed.

14.4.2

All sections of the appeal form must contain an appropriate entry or, if not applicable, must contain an explanation as to why the item(s) is/are not applicable. All required signatures and attachments must be complete when the appeal is received by the Central Personnel Division.

14.4.3

The State Personnel Director shall have 30 working days from receipt of the completed appeal form to review the appeal and provide a written

response to the employee and agency.

14.4.4

If the employee, department head, or the Director of Personnel Services does not agree with the determination made by the State Personnel Director, a written request may be forwarded to the State Personnel Director requesting that the appeal be heard before the State Personnel Board. Such request must be postmarked no later than 15 working days from the date of mailing of the Director's response.

14.4.5

Upon receipt of this written request, the Central Personnel Director shall notify in writing, within 10 working days, the date said appeal will be heard by the State Personnel Board.

15. VACANCY PROCEDURE

15.1

It shall be the responsibility of institutional departments to list all staff vacancies with the Office of Personnel Services. Vacant positions will be recruited for and filled according to the institution's Affirmative Action guidelines.

16. PROMOTIONS AND TRANSFERS

16.1

Notice of regular position vacancies shall be made available immediately to the Office of Personnel Services so that current employees may apply for the position.

16.2

Regular employees, when transferring positions, must serve a three month training period in the new position. If unable to satisfactorily perform the duties of the new position, the employee will be given preference in their former classification or position. The employee will retain their status for purposes of appealing employer actions and pre-termination hearing rights upon transfer provided there is no break in service.

16.3

Promotions will be made on the basis of current job performance, past performance record, length of service and qualifications to handle the particular job for which the employee wishes to be considered.

16.4

In the event of transfer, the employee's sick leave and vacation accrual become the obligation of the department to which the employee transfers.

17. PERFORMANCE EVALUATIONS

17.1

At the completion of an employee's probationary period and once a year

thereafter, each staff employee will be evaluated by his/her supervisor, and the written evaluation will be sent to the Office of Personnel Services. The employee is given an opportunity to read the written evaluation, and will be asked to sign the form. The signature does not necessarily mean that the employee agrees with the rating, but that the employee has seen it. The employee may submit a written statement regarding the evaluation which shall be attached to the evaluation form. These reports are a permanent part of the employment records in the Office of Personnel Services.

18. REST PERIODS

18.1

Employees shall be allowed a rest period of 15 minutes each half day to be arranged by the department head. The work day may not be shortened and lunch periods may not be lengthened by omitting rest periods.

18.2

Employees shall be allowed a minimum of 30 consecutive minutes for one meal.

19. HOLIDAYS

19.1

Employees of all state institutions of higher learning shall observe the following legal holidays:

New Year's Day	Independence Day
Martin Luther King Day	Labor Day
President's Day	Veteran's Day
Good Friday	Thanksgiving Day
Memorial Day	Christmas Day

Every day appointed by the President of the United States or by the Governor of this state for a public holiday.

19.2

If such holiday falls on Saturday, the preceding Friday shall be the holiday or if the holiday falls on Sunday, the Monday following shall be the holiday.

19.3

Institution offices must be closed at twelve noon on December 24, Christmas Eve Day, however, if December 25, Christmas Day falls on a Saturday, institution offices must be closed all day on the preceding Friday as indicated in Section 19.2.

19.4

Operational units of the institution will close or operate with a minimum staff on observed holidays. Regular employees who are required to work on a holiday because of the nature of their work or because of their regular shift shall receive additional pay at straight time for hours worked on those days identified in §19.1 except Sundays. Employees who because of work schedules have a regular

day off that coincides with a holiday shall have an additional day off with pay at the convenience of the institution.

19.5

Special religious holidays may be observed with the advance approval of the department head. Such time shall be charged to accumulated annual leave.

20. LEAVE

20.1

Funeral Leave — Absence from work because of a death in the immediate family of the employee or of their spouse may be excused without loss of pay to a maximum of three working days. The immediate family includes: husband, wife, child, foster children, grandchildren, parents, foster parents, grandparents, brothers, sisters, mother-in-law, father-in-law, brother-in-law, sister-in-law, daughter-in-law, and son-in-law of employee. Funeral leave for employees working less than 40 hours per week will be prorated.

20.2

Jury Duty — An employee shall be allowed leave with pay for jury or other legal duty when subpoenaed for such service. Any compensation received for such duty may be retained by the employee.

20.2.1

Where an employee is called as a witness in behalf of the State, and the employee's institution reimburses the employee for mileage, sustenance and room (which it may do), no witness fee or mileage shall be claimed by said employee and no time shall be deducted for the absence of such employee and such employee shall be deemed to be performing duties or services for the State.

20.2.2

Where an employee is called as a witness when the institution is not a party to the action and the institution does not reimburse such employee for mileage, sustenance, and room, the employee may collect witness fees and mileage from the proper party if the employee is on authorized leave.

20.2.3

An employee who is personally interested in or a party to a criminal or civil action or who voluntarily appears as a witness must charge their absence against earned annual leave or take leave without pay.

20.3

Military Leave — An employee who is either an enlisted person or an officer in the National Guard or Armed Forces Reserves shall be granted military leave annually in accordance with Sections 37-01-25 and 37-01-25.1 of the North Dakota Century Code which substantially provides:

20.3.1

Military leave with pay shall be granted to all state employees up to a

maximum of 20 work days for those employees who have been employed continuously for a period of 90 days or more immediately preceding the leave.

20.3.2

In addition, any military leave of absence necessitated by a full or partial mobilization of the reserve or national guard forces of the United States of America, or emergency state active duty, shall be without loss of pay for the first 30 days thereof notwithstanding any other military leave which may have been granted during the calendar year.

20.3.3

If leave is required for weekend, daily or hourly periods of drill for military training on a day on which the employee is scheduled to work, the employee must be given the option of time off with a concurrent loss of pay for the period missed, or must be given an opportunity to reschedule the work period so the reserve or national guard weekend, daily, or hourly drill or period of training occurs during time off from work without loss of status or efficiency rating.

20.3.4

An employee who enlists or is inducted into the Armed Forces is entitled to a military leave without pay for the duration of their initial period of service and three months thereafter. Such an employee, upon return from active military duty, shall be given their position formerly held or one of like seniority status and pay, provided they apply within 90 days after receiving their discharge. Seniority shall remain in effect during a military leave.

20.4

Storm Days — Official closing of the institution during periods of severe weather will be announced over local radio stations and when necessary, by department heads. Return to normal working conditions shall be announced in the same manner. Only employees designated by the department head will be required to work during the period when the institution is officially closed. All other employees will be granted leave with pay for hours which they would normally work during a storm period. All employees properly authorized to work shall receive additional pay at straight time rates for hours worked during the official closing.

20.4.1

When the institution remains open during inclement weather, employees unable to report to work shall notify their supervisor and take annual leave or leave without pay.

20.5

Conferences or Convention Leave — Two days per year shall be allowed for employee organization conference/convention leave. Attendance is limited to three institutional officers, any state officers on campus, one delegate at large, and one delegate for each 50 members. If the conference/convention is held on

a working day, the delegates will be paid as usual. If it is not a working day there will be no reimbursement.

21. LEAVE WITHOUT PAY

21.1

Leave without pay may be granted to regular employees who have maintained a satisfactory service record. Such leave may be taken for the following reasons: (a) extended absences in the interest of the Institution such as for research or advanced training leading to improved job ability, and (b) necessary absences due to a long illness or for other important matters.

21.2

Leave without pay may be authorized by the department head for a period less than 21 working days. Leave without pay of 21 or more days requires approval of the Vice President for Finance. In cases where a leave is requested due to sickness, the department head, or their designee may request the employee to provide a letter from the employee's physician indicating the physician's opinion of when the employee will be able to return to work. The department shall forward the request for such leave to the Office of Personnel Services. Leave will not be granted for a period in excess of one calendar year, except for military service or Worker's Compensation paid disability. Failure of an employee to report for duty on expiration of leave granted is cause for termination.

21.3

Leave of absence will be granted with assurance of reinstatement to the same position or to other employment in the department recommending the leave unless circumstances make it clearly impractical. Employees who do not apply for reinstatement within the time specified shall be subject to termination.

21.4

Employees while on leave shall retain their years' service rights and accumulated benefits but shall earn no additional benefits.

22. FAMILY LEAVE

22.1

An institution shall grant an employee's request for an unpaid family leave of absence as outlined in the North Dakota Century Code 54-52.4-02 for any of the following reasons:

- a) To care for the employee's child by birth, if the leave begins within 16 weeks of the child's birth;
- b) To care for a child placed with the employee, by a child-placing agency licensed under NDCC Chapter 50-12, for adoption or as a precondition to adoption under Section 14-15-12, but not both, or for foster care, if the leave begins within 16 weeks of the child's placement.
- c) To care for the employee's child, spouse, or parent if the child, spouse, or parent has a serious health condition.

22.2

For any combination of reasons specified in Section 22.1, an employee may take family leave to be determined by the institution on a pro-rata basis according to a formula based on the average number of hours per week that the employee is employed, whereby in any 12 month period an employee who is employed for an average of 20 hours per week during the preceding 12-months may take not more than two months of family leave and an employee who is employed for an average of 40 or more hours per week during the preceding 12-months may take not more than four months of family leave.

23. RESIGNATIONS

23.1

In case of resignations, a regular employee is requested to give four weeks notice to the department head. A copy of the notice shall also be forwarded to the Office of Personnel Services. One weeks' notice is requested for temporary and probationary employees (see 4.1). The period of notice may be reduced or waived upon recommendation of the department head.

24. LAYOFF OR REDUCTION IN STAFF

24.1

The legal right to layoff an employee exists in the same authority as the right to appoint. In the event of the discontinuance of a position because of an organizational or procedural change, diminished work load, lack of funds or other exigency, the employee concerned shall be given at least two weeks' written notice of layoff. In the case of an emergency layoff, such as a serious fire, or at the institutions discretion, employees will be given two weeks' pay in lieu of two weeks' notice. A copy of the employee's layoff letter shall be sent to the Office of Personnel Services.

24.2

Before making such layoffs, the institution will give careful consideration to employing the individual or individuals in available vacancies.

24.3

In filling vacancies, consideration will be given to the length of service and quality of work of those whose positions have been abolished.

24.4

Rehiring of laid off employees shall be in reverse order of layoffs if a job becomes available within their respective job class, in their former department within two years from the date of layoff.

24.5

In considering which employees shall be reduced, the institution shall consider the following:

1. An analysis of the acquired knowledge, demonstrated skills, and versatility of its employees compared to the work to be done and the available funding. Employees lacking the necessary skills and versatility should be considered for reduction.

2.

An analysis of the level of demonstrated work performance. Employees having a consistently low level of performance should be considered for reduction.

3.

A review of the length of service of its employees. The institution should list the number of years and months employees have been in the classified service. Employees with the fewest years of service should be considered for reduction.

4.

An analysis of the extent of required training needed to train a reassigned employee to full productivity in a different position. Employees requiring substantial retraining should be considered for reduction.

24.6

The institutions shall develop and retain written documentation of the required analysis and review in Section 24.5. The factors listed in Section 24.5 are intended to be guidelines for use as part of the reduction-in-force decision.

25. JOB DISCIPLINE/DISMISSAL

25.1

A regular employee may be dismissed from employment for just cause. Just cause includes conduct related to the employee's job duties, job performance, or working relationships which is detrimental to the discipline or efficiency of the institution in which the employee is or was engaged.

25.2

The employing department shall notify the employee and the Office of Personnel Services immediately in writing, stating the reason for the suspension without pay, the dismissal, or disciplinary demotion and the employee's right to appeal.

25.3

A regular employee who is being suspended without pay, dismissed or demoted for disciplinary reasons shall be entitled to a pre-action review of the reasons for the proposed action. This review will be either in writing or in person at the option of the institution and shall be held no sooner than three working days from the time notice was provided to the employee.

25.3.2

The purpose of the informal review shall be as an initial check against mistaken decisions. The official shall make a determination whether there are reasonable grounds to believe the charges against the employee are true and support the proposed action.

26. TERMINATION PROCEDURE

26.1

An employee leaving the service of the institution, either by their own volition or after having been informed of their separation, shall report to the Payroll Office for final processing.

26.2

A regular employee is eligible to receive terminal annual leave pay. (see 6.8 Annual Leave). Terminal annual leave pay shall be prorated for the month of termination if the employee has not completed a full month of employment.

26.2.1

The last day of work is the termination date, except that two weeks' termination pay shall be provided when a two weeks' notice of layoff is not possible (see 24.1). Upon termination, an employee shall be paid for all unused annual leave accrued through the termination date.

27. GRIEVANCES/APPEAL PROCEDURES

27.1

A grievance exists when a regular employee is dissatisfied with an aspect of employment over which the employee has no control and on which remedial action is desired, excluding position classification. (See Sec. 14, Position Classification).

27.2

If an employee feels unfairly treated or has a complaint, the employee shall first discuss it with the immediate supervisor. It may be a case of misunderstanding which can be straightened out by frank discussion.

27.3

All employees have the right to present grievances to their supervisors or department heads and are assured freedom from discrimination, coercion, restraint or reprisal in presenting grievances.

27.4

At each step of the grievance procedure the employee may be represented by another institutional employee or by a representative of the employee's choosing.

27.4.1

All references to work days shall be to actual days worked at the normal work site by the person required to respond.

27.5

Any regular employee who has been suspended without pay, dismissed or demoted for disciplinary reasons may file a written appeal to the Staff Personnel Board. (See 27.6.4.1). Such appeal, stating the pertinent facts relative to the grievance, shall be filed with the Office of Personnel Services within five (5) working days following such disciplinary action. The employee shall, within ten (10) working days after notification by the Director of Personnel Services respond to requests by the institution to establish a hearing. Failure by the employee to respond shall be deemed a waiver of any objection to the hearing date. It shall be the duty of the Staff Personnel Board to hear both sides of the case and, after weighing all information presented to the Board to report its decision to the employee, the employing department and the Director of Personnel Services. If the decision of the Staff Personnel Board is not acceptable,

the employee or the department head may request a review of the record of the proceedings relied upon by the Staff Personnel Board by the President of the institution. This request must be filed in writing with the Director of Personnel Services within five (5) working days after receiving notice of the Staff Personnel Board's decision. Within ten (10) working days after receiving information on the case, the President shall provide a decision, sending copies to the employee, the employing department and the Director of Personnel Services.

27.5.1

Any employee may appeal a decision of the President pursuant to 27.5 to the Board of Higher Education within ten (10) working days following the decision by filing a notice of appeal with the Director of Personnel Services. A timely filed appeal will be forwarded to the Chancellor, North Dakota University System who shall appoint a hearing officer to conduct a hearing and submit recommendations to the Board. The case will be presented to the Board at its next duly scheduled meeting. The Board may allow the employee and the institution to make a statement at the meeting. The Board's decision shall be final.

27.6

Grievances relating to conditions of employment, other than those in 27.5 shall be presented and advanced as follows:

27.6.1

(Step 1) An employee shall explain in writing a grievance to his/her immediate supervisor. A grievance must be brought within ten (10) working days from the act causing the grievance unless a longer period of time is provided by law or written agreement. The supervisor, either alone or in collaboration with his/her supervisors, shall reach a decision and communicate it in writing to the employee within two (2) working days of his/her being told of the situation causing grievance. All reference to work days shall be in accordance with the institution's normal work schedule. (Every effort should be made to settle grievances at this stage.) If the grievance is against the employee's immediate supervisor, the employee may begin the grievance with the next level of supervision.

27.6.2

(Step 2) If the grievance is not settled at the first step, the employee shall advance a written grievance to the next level of supervision within five (5) working days. The supervisor shall make a written reply to the employee's grievance within ten (10) working days.

27.6.3

(Step 3) If the grievance is not settled at the second step, the employee shall advance the written appeal to the department head (or appointing authority) within five (5) working days. The department head shall obtain the facts of the case up to this point from the department file and may hold a conference with all the parties concerned. Within ten (10) working days of receipt of the appeal, the department head shall

notify the employee, the supervisor and the Director of Personnel Services of the decision in writing.

27.6.4

(Step 4) If the grievance is not settled at the third step, the employee shall file an appeal to the Staff Personnel Board (See 27.6.4.1) with the Director of Personnel Services within five (5) working days. The Director of Personnel Services shall assemble the facts of the case and present them to the Staff Personnel Board. The Staff Personnel Board shall hold a hearing with the persons concerned in the case. Within five (5) working days after completion of the hearing, the Staff Personnel Board shall present its written decision to the department head, the employee, and the Director of Personnel Services and the institution president.

27.6.4.1

A Staff Personnel Board shall be appointed by the President of each institution to hear employee grievances. This Board shall consist of three appointed members. The three members shall appoint a chairperson who shall conduct the hearing.

27.6.5

(Step 5) If the grievance is not settled at the fourth step, the employee or the department head shall, within five (5) working days of receipt of the decision of the Staff Personnel Board, request a review by the President of the institution. This written request must be filed with the Director of Personnel Services within ten (10) working days of the Staff Personnel Board's decision. Within ten (10) working days after receiving all information on the case, the President shall provide a written decision with copies to the employee, the employing department head and the Director of Personnel Services.

27.7

Any disposition which is not appealed by the employee within the time allowed at each level shall be considered settled and binding on the employee and the institution. At any level, the employee and the appropriate supervisor may agree, in writing, that additional time is required after the grievance has been filed in writing. A copy of their agreement must go to the Office of Personnel Services. The Office of Personnel Services shall keep official records of the progress of a grievance as regards specified time limits.

28. REINSTATEMENT

28.1

A former regular employee who resigned or was separated while in good standing will be allowed credit for prior service in establishing eligibility for employment benefits provided reemployment occurs within one year after termination.

29. WAGE GARNISHMENTS

29.1

All employers are required by law to accept garnishments against the wages of employees in satisfaction of legal judgments.

30. TRAVEL EXPENSE

30.1

Employees who are authorized to travel at institutional expense are required to submit a detailed record of travel expenses on a travel reimbursement voucher.

31. STAFF PERSONNEL ADVISORY COMMITTEE

31.1

A Staff Personnel Advisory Committee may be established by the President of the institution to meet and advise the Director of Personnel Services on matters relating to staff personnel.

31.2

The Staff Personnel Advisory Committee may recommend revisions or amendments, or review proposed revisions and amendments to these policies.

32. CONTINUING EDUCATION FOR EMPLOYEES

32.1

The North Dakota State Board of Higher Education encourages its employees to pursue a program on continuing education.

32.2

All regular employees will be allowed release time from their regular duties for the purpose of enrolling in one academic class per school session.

This education program is subject to the following:

32.2.1

The employee must obtain initial approval from the employee's supervisor and final approval from the Director of Personnel Services.

32.2.2

Release time is granted only for the amount of time required to attend the regular class session. (Field trips and outside activities are not included.)

32.2.3

The employee shall not pay any tuition or fees for the class taken (for credit or audit).

33. AMENDMENTS AND EXCEPTIONS

33.1

These policies may be revised or amended at any time by the State Board of Higher Education.

34. ADMINISTRATION

34.1

The Director of Personnel Services is responsible for the administration of these policies.

35. NOTICE OF APPOINTMENT

35.1

Regular classified employees shall receive a notice of appointment in a form approved by the Chancellor, North Dakota University System.

36. SAFETY POLICY

36.1

The University places above all other considerations the safety and well-being of its students, faculty, staff and visitors. It is the first duty of faculty, supervisors, and all other persons in authority to provide for safety in the environment and operations under their control. Safety policy with the University is developed by the Fire and Accident Prevention Coordinating Committee, the Safety Coordinator, and various interested administrators. The University subscribes to recognized national standard of safety and fire protection such as the National Safety Council, the National Fire Protection Association, the Federal Occupational Safety and Health Act (OSHA), the Underwriters' Laboratories, and other standard-making bodies.

HISTORY: (Replaces Staff Personnel Handbook (Old Manual) as revised March 26, 1976). (Amendment. State Board of Higher Education Minutes, January 12-13, 1984, page 5200). (Amendment. State Board of Higher Education Minutes, June 26-27, 1985, page 5384). (Amendment. State Board of Higher Education Minutes, July 25, 1985, page 5397). (Amendment Sec. 26.6.4.1. State Board of Higher Education Minutes, November 7, 1985, page 5422). (Amendment Sec. 24.1. State Board of Higher Education Minutes, December 2, 1985, page 5433). (Amendment Sections 24.2, 24.5, 24.5.1, 24.5.2. State Board of Higher Education Minutes, February 6-7, 1986, page 5442). (Amendment. Sec. 34.1. State Board of Higher Education Minutes, September 18-19, 1986, page 5520). (Amendment. Sections 23.5, 23.6, 26.5. State Board of Higher Education Minutes, February 6, 1987, page 5566). (Amendment. Sections 3.4, 10.2. State Board of Higher Education Minutes, March 13, 1987, page 5578). (Amendment. Sec. 7.1. State Board of Higher Education Minutes, June 27-28, 1988, page 5731). (Amendment. Sections 26.6.1 and 26.7. State Board of Higher Education Minutes, March 14, 1989, page 5800). (Amendment. Sec. 16.2. State Board of Higher Education Minutes, April 24-25, 1989, page 5813). (Amendment. Sec. 31.2. State Board of Higher Education Minutes, September 12-13, 1989, page 5891). Amendment, Sec. 5.1.1. State Board of Higher Education Minutes, December 7, 1989, page 5915.

8/27/91

Financial Report

1993 - 1994

Grand Forks, North Dakota

BOARD OF HIGHER EDUCATION*

(with date term expires)

Allan Braaten, *President, Barney (1996)*
Patricia Hill, *Vice President, Bismarck (1997)*
Richard Lokken, *Minot (1995)*
Cynthia Kaldor, *Hillsboro (1998)*
Paul Ebeltoft, *Dickinson (1999)*
Joseph Peltier, *Arthur (2000)*
Jeannette Satrom, *Oriska (2001)*
Kay Fulp, *Non-voting Faculty Representative,
State College of Science, Wahpeton (1995)*
Ryan Malkowski, *Non-voting Student Representative,
Fairfield; school address, Wahpeton (1995)*

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Gene Kemper, *Vice Chancellor for Academic Affairs*
Laura Glat, *Vice Chancellor for Administrative Affairs*
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Carol Asplund, *Administrative Officer*
Nancy Blom, *Research Associate*
Anna Domogala, *Administrative Secretary II*
Eddie Dunn, *VoTech Coordinator*
Terry Meyer, *Officer Manager*
Tamney Olsen, *Administrative Secretary II*
Mick Pytlík, *Director of Finance*
Mike Sandal, *Personnel Analyst*
Rhonda Schauer, *Native American Scholar Administrator*
Pat Seaworth, *General Counsel and SBHE Executive
Secretary*
Dave Soliah, *HECN Student Information System*
Sheila Tibke, *Administrative Secretary III*
Jerry Wegenast, *Financial Project Director/HECN*
Peggy Wlpl, *Director of Financial Aid*

EXECUTIVE OFFICERS OF UND*

Kendall L. Baker, *President*
Marlene Strathe, *Vice President for Academic Affairs
and Provost*
Lyle Beiswenger, *Vice President for Finance*
Gordon Henry, *Vice President for Student Affairs*
Al Hoffarth, *Vice President for Operations*

Executive Business Officers of UND*

Peggy Lucke, *Controller*
Alice Brekke, *Director, Budget and Grant
Administration*
Fred MacGregor, *Director of Personnel Services and
Payroll*
Dale Vetter, *Director, Computer Center*
Tim Rerick, *Internal Auditor*

*as of January 1, 1995

February 1, 1995

DEAR FRIENDS,

Presented in this booklet is the report of financial operations at the University of North Dakota for the fiscal year ended June 30, 1994. This is the twenty-eighth of such reports setting forth a complete and permanent record of the financial affairs of the university. In addition, we have prepared supplemental detailed schedules which are available upon request.

The financial statements in this report have been examined by the State Auditor's Office. The auditor's opinion letter can be found on page two.

We welcome your questions and comments on any aspect of this report, as well as your ideas on how we might continue to improve the accountability of the University to the people of North Dakota.

Respectfully submitted,

1

Lyle Beiswenger

Lyle Beiswenger
Vice President for Finance

K. Baker

Kendall L. Baker
President

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U.S. DEPARTMENT OF JUSTICE

STATE OF NORTH DAKOTA
OFFICE OF THE STATE AUDITOR
STATE CAPITOL
600 E. BOULEVARD AVENUE
BISMARCK, NORTH DAKOTA 58505

INDEPENDENT AUDITOR'S REPORT

To the Governor of the State of
North Dakota
Bismarck, North Dakota

To the State Board of Higher
Education
Bismarck, North Dakota

To the Legislative Assembly
Bismarck, North Dakota

To the President of the
University of North Dakota
Grand Forks, North Dakota

We have audited the accompanying balance sheet of University of North Dakota as of June 30, 1994 and the related statements of current fund revenues, expenditures and other changes, and changes in fund balance for the year then ended. These financial statements are the responsibility of University of North Dakota's management. Our responsibility is to express an opinion on these financial statements based on our audit. The financial statements of University of North Dakota as of June 30, 1993, were audited by other auditors whose report dated October 5, 1993, expressed an unqualified opinion on those statements prior to restatement.

We conducted our audit in accordance with generally accepted auditing standards, and the standards for financial audits contained in the publication Government Auditing Standards issued by the Comptroller General of the United States. 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.

In our opinion the financial statements referred to above present fairly, in all material respects, the financial position of the University of North Dakota as of June 30, 1994 and the results of its operations for the year then ended, in conformity with generally accepted accounting principles.

Our examination was made for the purpose of forming an opinion on the financial statements taken as a whole. The accompanying financial information, subsequent to the notes to the financial statements, is presented for purposes of additional analysis and is not a required part of the financial statements of the University of North Dakota. Such information has been subjected to the auditing procedures applied in the examination of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

Robert Peterson
Robert W. Peterson
State Auditor

September 1, 1994

UND balances historical mission with contemporary responsibilities

With about 11,500 students enrolled in Grand Forks and 1,519 at its branch campuses in the fall of 1994, the University of North Dakota is the largest post-secondary institution in the region of North Dakota, South Dakota, western Minnesota, and Montana. UND enrolls 32.9 percent of 39,948 students attending the eight publicly supported colleges and universities and three branch campuses in the North Dakota university system.

The two-year branch campuses are located in Williston and Devils Lake, in western and central North Dakota, respectively, and UND also operates regional medical campuses in Fargo, Bismarck, and Minot.

The University was founded in 1883, six years before statehood. Perhaps the most significant fact about the origin of UND was the insistence of its founders that it be established as a university, with all of the related implications. The charter, modeled on that which created the University of Wisconsin, called for the establishment of a liberal arts and letters college, a normal school for the training of teachers, and "such professional or other colleges or departments as...may, from time to time, be added thereto or connected therewith." And indeed, it wasn't long before the University added a number of professional schools: Law in 1889, Engineering and Mines in 1901, and Medicine in 1905. The first master's degree was awarded in 1895 and the first Ph.D. in 1914. Serious scientific research also began early, particularly in studies relating to the utilization of lignite coal. In broad outline, much of what the University is today would be recognizable to its founders.

The University offers more than 160 undergraduate, graduate, and professional programs through 12 major academic units: College of Arts and Sciences, Center for Aerospace Sciences, College of Business and Public Administration, School of Engineering and Mines, College of Fine Arts and Communication, College for Human Resources Development, College of Nursing, Center for Teaching and Learning, Graduate School, School of Law, School of Medicine, and the Division of Continuing Education.

Students, as well as the society at large, benefit from the University's research programs, which give them access to faculty on the cutting edge of their disciplines, and to laboratories and research equipment found only in a University environment. Major research programs are conducted in aviation, biomedicine, energy and environmental concerns, nutrition, earth systems science, ecology, business, and other areas. The University also serves the general public with an extensive range of services, outreach programs, and facilities. Each year, nearly 25,000 North Dakotans participate in conferences, extension classes, workshops, and other outreach activities.

In recent years, the University has received national visibility for its creative partnerships with business, in-

dustry, and government. This entrepreneurial spirit has resulted in the development of two world class facilities at opposite sides of the campus: The Energy and Environmental Research Center on the east and the Center for Aerospace Sciences and its affiliated UND Aerospace Foundation on the west.

The University's physical plant consists of 570 acres, including the 152-acre north campus, and 240 buildings containing more than 4.9 million square feet of space. With the exception of the two U.S. Air Force bases, UND is North Dakota's single largest employer. In the fall of 1994, full-time faculty and research staff numbered 521, and full-time non-instructional staff 1,868, for a total of 2,389. Part-time faculty and staff numbering 671 brought the overall UND work force to about 3,060, not including student assistants.

For more information about the University of North Dakota, contact the Office of University Relations, Box 7144, Grand Forks, ND 58202, phone 701/777-2731, FAX 701/777-3650.

BALANCE SHEET

For the Year Ended June 30, 1994 with Comparative Totals for 1993

	CURRENT FUNDS			LOAN FUNDS
	UNRESTRICTED	AUXILIARIES	RESTRICTED	
ASSETS:				
Cash and cash equivalent	\$ 2,565,609	\$ 499,371	\$ 16,442	\$ 1,376,813
Investments	316,169	92,106	1,297,462	61,089
Interest receivable	3,963	309	14,331	86
Accounts receivable	6,645,265	587,855	703	
Allowance for doubtful accounts	(814,346)	(49,562)		
State appropriation receivable	2,227,019			
Tuition and fees receivable	5,560			
Leaves receivable				
Grants & contracts receivable	29,507		6,389,885	
Notes receivable				20,685,440
Allowance for doubtful accounts				(1,088,919)
Inventories	317,394	3,412,802		
Due from other funds	2,058,634			
Deposits from other current assets		296,539		500
Prepaid expenses and deferred charges	44,500	31,810		
Land				
Buildings and building improvements				
Improvements other than buildings				
Equipment				
Library books				
Construction in progress				
Total assets	\$13,409,274	\$4,891,230	\$7,718,823	\$21,034,209
LIABILITIES & FUND BALANCES:				
Liabilities:				
Accounts payable and accrued expenses	\$ 2,794,090	\$ 652,161	\$ 286,735	\$ 147
Salaries payable	548,487	161,980	371,329	
Retirement/pension payable	339,865			
Due to other funds	337,934	236,381	1,672,590	
Deferred revenue	450	68,277	2,171,117	
Bonds payable				
Notes payable				
Payroll withholdings payable				
Retentionage payable				
Special assessments payable				
Leaves payable				
Leave payable	3,692,858	587,535		
Interest payable				
Grants and contracts payable				
Deposits held in custody for others	447,874	397,331		
Total liabilities	\$ 8,361,598	\$2,104,185	\$4,591,771	\$ 147
Fund Balances:				
Unrestricted:				
University of North Dakota (UND)	\$ 1,406,454	\$2,314,980		
University of North Dakota-Williston	458,078	132,487		
University of North Dakota-Lake Region	583,184	339,378		
Restricted:				
UND			\$3,084,433	
University of North Dakota-Williston			132,619	
Loan Funds:				
UND - Federal				\$15,758,114
UND - Institutional				4,531,844
UND-Williston - Federal				290,150
UND-Williston - Institutional				44,301
UND-Lake Region - Federal				364,592
UND-Lake Region - Institutional				45,061
Endowment - Restricted:				
UND				
University of North Dakota-Williston				
Quasi-Endowment (Restricted) - UND				
Term Endowment (Restricted) - UND				
Retirement of Indebtedness/Repair & Replacement:				
UND:				
Retirement of Indebtedness - Restricted				
Repair and Replacement - Restricted				
University of North Dakota - Williston:				
Retirement of Indebtedness - Restricted				
Repair and Replacement - Restricted				
University of North Dakota-Lake Region:				
Retirement of Indebtedness - Restricted				
Net Investment in Plant:				
UND				
University of North Dakota-Williston				
University of North Dakota-Lake Region				
Total fund balances	\$ 5,047,716	\$2,787,045	\$3,217,052	\$21,034,063
TOTAL LIABILITIES AND FUND BALANCES	\$13,409,274	\$4,891,230	\$7,718,823	\$21,034,209

The accompanying notes are an integral part of the financial statements.

ENDOWMENT AND SIMILAR FUNDS	PLANT FUNDS			AGENCY	TOTAL ALL FUNDS	
	UNEXPENDED	RETIREMENT OF INDEBTEDNESS & REPAIR/REPLACE	INVESTMENT IN PLANT		(Memorandum Only) 1994	(Memorandum Only) 1993
\$ 392,156 9,972,291 5,917	\$ 6,499,935 11,491,330 338,530 1,331,948 282,619	\$ 3,833,606 7,342,437 131,965 434,271 (70) 2,629,824		\$3,107,313 2,860 27 649,848 (121)	\$ 18,290,445 30,575,744 495,148 9,649,890 (854,099) 2,509,638 5,560 2,629,824 6,419,392 30,685,440 (1,088,919) 3,750,196 2,378,768 1,312,304 76,210 4,343,903 183,083,580 27,362,266 94,694,715 27,220,636 13,873,756	\$ 12,001,299 32,410,770 343,820 8,360,672 (840,786) 846,691 12,109 2,780,272 9,245,381 19,814,959 (842,203) 3,917,188 4,691,813 1,968,452 53 4,343,903 172,797,617 25,475,549 96,308,546 25,475,821 10,660,620
330,132		5,926	\$ 1,009,339 4,343,903 183,083,580 27,362,266 94,694,715 27,220,636 13,873,756			
<u>\$10,698,496</u>	<u>\$19,944,382</u>	<u>\$14,377,959</u>	<u>\$351,588,195</u>	<u>\$3,759,927</u>	<u>\$447,414,495</u>	<u>\$429,772,556</u>
	\$ 1,934,089			\$ 82,814 7,908 131,363	\$ 4,896,366 1,089,704 539,865 2,378,768 2,264,421 33,780,000 2,629,824 2,517,306 831,893 529,351 31,559,041 4,281,813 1,280,153 14,118 1,865,741	\$ 5,308,613 1,009,255 4,691,814 1,243,563 29,467,000 2,780,272 2,129,006 831,893 529,351 31,559,041 4,085,784 1,303,703 14,118 1,895,617
	4,507 4,273,919	\$ 20,070 280,000 2,629,824	\$ 29,226,081	2,517,306		
		2,330,590 1,260,153	29,299,479			
	<u>\$ 6,212,515</u>	<u>\$ 4,520,597</u>	<u>\$ 58,525,560</u>	<u>53,759,927</u>	<u>\$ 89,986,260</u>	<u>\$ 86,649,010</u>
	\$ 5,702,472 21,978 8,005,417	\$ 1,772,093			\$ 13,795,999 614,543 922,762 11,089,850 132,619 15,758,114 4,531,844 290,150 44,301 364,592 45,061 5,154,633 49,494 5,481,369 5,000 3,921,671 1,629,814 329,592 554 203,438 284,029,797 4,051,256 4,981,582	\$ 15,494,927 887,160 936,037 10,853,740 63,444 15,208,247 4,283,610 284,248 23,556 352,177 44,021 4,735,025 49,094 4,936,144 5,000 4,786,364 1,411,652 285,313 580 126,237 269,411,394 3,995,239 4,981,432
\$ 5,154,633 49,494 5,481,369 5,000		3,921,671 1,629,814 329,592 554 203,438	\$284,029,797 4,051,256 4,981,582			
<u>\$10,698,496</u>	<u>\$13,731,867</u>	<u>\$ 7,867,362</u>	<u>\$283,082,635</u>		<u>\$357,428,235</u>	<u>\$343,123,546</u>
<u>\$10,698,496</u>	<u>\$19,944,382</u>	<u>\$14,377,959</u>	<u>\$351,588,195</u>	<u>\$3,759,927</u>	<u>\$447,414,495</u>	<u>\$429,772,556</u>

CHANGES IN FUND BALANCES

For the year ended June 30, 1994	Current Funds				Plant Funds		
	Unrestricted	Restricted	Loan Funds	Endowment & Similar Funds	Unexpended	Retirement of Indebtedness/Repair and Replacement	Investment in Plant
REVENUES AND OTHER ADDITIONS:							
Unrestricted current fund revenues	\$ 171,959,367						
State appropriations - restricted					\$ 2,117,001		
Federal grants and contracts - restricted		\$ 37,822,341	\$ 548,301		3,625,382	\$ 174,124	
State grants and contracts - restricted		1,511,375	38,962				
Other gifts and grants - restricted		6,377,182	83,170	\$ 1,810	3,948,470	45,332	
Investment/endowment income		399,323	21,186	724,175	815,695	412,232	
Interest and late fees			504,891				
Cancellation reimbursements			351				
Expended for plant facilities					499,175		\$ 15,937,619
Equipment additions							9,078,962
Library book acquisitions							1,298,354
Leases retired							11,116,278
Bonds retired							933,556
Special assessments retired							507,022
Bond proceeds					1,806,172	436,081	
Lease proceeds						8,253,000	
Fees pledged for bond retirement						859,371	
Funds provided by escrow						2,391,309	
Miscellaneous income		21,522	1,067				
Other additions	220,353		36,061	73,290	230,132	537,776	
Total revenues and other additions	\$ 172,179,720	\$ 46,131,743	\$ 1,233,989	\$ 799,275	\$ 13,842,027	\$ 13,309,428	\$ 38,871,791
EXPENDITURES AND OTHER DEDUCTIONS:							
Educational and general expenditures	\$ 120,672,636	\$ 39,807,928					
Auxiliary enterprise expenditures	36,281,625	117,466					
Hospital expenditures	11,517,193						
Indirect costs recovered	15,491	5,779,917					
Administrative and collection costs			\$ 1,945				
Loan cancellations and write-offs			457,757				
Expended for plant facilities					\$ 15,734,917		
Trustee fees						\$ 229,905	
Interest on indebtedness						5,651,113	
Retirement of indebtedness						1,392,141	
Leases refinanced						8,343,151	
Issuance of bonds							\$ 2,242,353
Issuance of leases							10,908,068
Bond discount amortized							32,753
Disposals of plant facilities							149,150
Equipment deletions							2,247,003
Minimum valuation adjustment							8,347,342
Buildings razed							229,652
Accrued leave deduction	153,262						
Other miscellaneous deductions	674,874	75		\$ 13,000		62,663	
Total expend. and other deductions	\$ 169,315,881	\$ 45,708,386	\$ 459,702	\$ 13,000	\$ 15,734,917	\$ 15,878,973	\$ 24,156,221
TRANSFERS AMONG FUNDS-ADDITIONS (DEDUCTIONS):							
Mandatory - principal and interest	\$ (3,213,729)					\$ 3,213,729	
Mandatory - loan fund match	(53,838)	\$ (77)	\$ 53,915				
Non mandatory - interfund	(3,756,891)	(442,767)		\$ 178,958	\$ 3,417,563	600,136	
Total transfers	\$ (7,024,458)	\$ (442,844)	\$ 53,915	\$ 178,958	\$ 3,417,563	\$ 3,816,865	
NET INCREASE (DECREASE) FOR THE YEAR	\$ (4,139,819)	\$ (16,487)	\$ 828,202	\$ 965,233	\$ 724,673	\$ 1,247,317	\$ 14,715,570
FUND BALANCES JULY 1, 1993	11,994,580	3,233,539	20,205,868	9,725,263	13,807,194	6,610,045	278,347,865
FUND BALANCES, JUNE 30, 1994	\$ 7,854,761	\$ 3,217,052	\$ 21,034,062	\$ 10,690,496	\$ 13,731,867	\$ 7,857,362	\$ 293,063,435

The accompanying notes to the financial statements are an integral part of the financial statements.

CURRENT FUND REVENUES, EXPENDITURES, AND OTHER CHANGES

For the year ended June 30, 1994

1994

1993

With comparative figures for the year ended June 30, 1993

	Unrestricted	Restricted	Total	Total
REVENUES:				
Tuition and fees	\$ 35,828,025		\$ 35,828,025	\$ 34,430,972
State appropriations	51,553,130		51,553,130	54,116,500
Federal grants and contracts	5,467,996	\$ 32,433,219	37,901,215	39,210,238
State grants and contracts	301,734	1,515,697	1,817,431	1,579,801
Private gifts, grants and contracts	3,705,616	5,757,760	9,463,376	9,437,024
Investment and endowment income	420,965	197,273	618,238	630,672
Sales and services of educational departments	23,129,758	21,522	23,151,280	22,149,382
Sales and services of auxiliary departments	39,288,798		39,288,798	37,794,009
Sales and services of hospitals	12,263,325		12,263,325	12,347,853
Total current revenues	\$173,989,367	\$ 39,925,471	\$213,914,838	\$211,696,481
EXPENDITURES AND MANDATORY TRANSFERS:				
EDUCATIONAL AND GENERAL:				
Instruction	\$ 69,380,222	\$ 5,581,337	\$ 74,961,559	\$ 71,687,686
Public service	401,608	6,790,014	7,191,622	7,415,869
Research	1,141,074	17,610,546	18,751,620	19,182,757
Academic support	15,547,601	347,534	15,895,135	14,386,875
Student services	5,682,014	446,935	6,128,949	5,899,356
Institutional support	12,306,477	137,634	12,444,111	12,048,669
Operation and maintenance of physical plant	12,535,067	72,539	12,607,606	12,432,843
Scholarships and fellowships	3,478,573	8,821,349	12,299,922	15,813,676
Total educational and general expenditures	\$120,672,634	\$ 39,807,928	\$160,480,564	\$158,867,731
Mandatory transfers for				
Loan fund matching	\$ 53,838	\$ 77	\$ 53,915	\$ 13,684
Principal and interest	611,654		611,654	324,581
Total educational and general expenditures and mandatory transfers	\$121,238,126	\$ 39,808,005	\$161,146,133	\$159,205,996
AUXILIARY ENTERPRISES:				
Expenditures	\$ 36,281,625	\$ 117,466	\$ 36,399,091	\$ 35,504,151
Mandatory transfers for principal and interest	2,501,203		2,501,203	2,855,556
Total auxiliary expenditures and mandatory transfers	\$ 38,782,828	\$ 117,466	\$ 38,900,294	\$ 38,359,707
HOSPITAL:				
Expenditures	\$ 11,517,193		\$ 11,517,193	\$ 10,790,321
Mandatory transfers for principal and interest	100,872		100,872	106,540
Total hospital expenditures and mandatory transfers	\$ 11,618,065		\$ 11,618,065	\$ 10,896,861
Total expenditures and mandatory transfers	\$171,739,021	\$ 39,925,471	\$211,664,492	\$208,462,564
OTHER TRANSFERS AND ADDITIONS (DEDUCTIONS):				
Excess of restricted receipts over transfers to revenue		\$ 426,355	\$ 426,355	\$ 292,733
Nonmandatory transfers	\$ (3,756,891)	(442,767)	(4,199,658)	(1,488,545)
Other additions (deductions)	(454,531)	(75)	(454,596)	381,483
Indirect costs recovered	(15,491)		(15,491)	(26,694)
Accrued leave	(153,262)		(153,262)	(940,023)
NET INCREASE (DECREASE) IN FUND BALANCE	\$ (4,159,819)	\$ (16,487)	\$ (4,176,306)	\$ 1,492,841

The accompanying notes to the financial statements are an integral part of the financial statements.

NOTES TO FINANCIAL STATEMENTS

NOTE 1 — SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The significant accounting policies, as summarized below, and the financial statements for the University of North Dakota (UND) are in accordance with generally accepted accounting principles as prescribed by (1) the National Association of College and University Business Officers in College and University Business Administration (1982) and (2) the American Institute of Certified Public Accountants in Audits of Colleges and Universities (1975).

A. Reporting Entity

In accordance with generally accepted accounting principles (GAAP) as applied to governmental units, UND's financial statements include all funds and account groups over which the institution is financially accountable and other organizations for which the nature and significance of their relationship with UND are such that exclusion would cause UND's financial statements to be misleading or incomplete. The Governmental Accounting Standards Board has set forth criteria to be considered in determining financial accountability. These criteria include appointing a voting majority of an organization's governing body and (1) the ability of UND to impose its will on that organization or (2) the potential for the organization to provide specific financial benefits to, or impose specific financial burdens on UND.

Based on the application of GAAP, the following component units are included (blended into the appropriate funds) in the reporting entity:

- UND-Williston Branch
- UND-Lake Region Branch
- UND Medical Center
- UND Medical Center Rehabilitation Hospital

UND-Williston Branch and UND-Lake Region Branch maintain their own general ledgers on the Higher Education Computer Network. They are also audited separately on an annual basis. The information relating to UND-Williston and UND-Lake Region Branches' included in this report comes from the audit reports of UND-Williston and UND-Lake Region.

The University's foundations and alumni associations, which are detailed in note 9, are excluded from the reporting entity because they are determined to be independent entities. These entities are controlled by a separate board of directors. The University does not exercise financial or administrative control over these excluded entities.

The University is included as a component unit of the State of North Dakota within the State's annual Comprehensive Annual Financial Report (CAFR).

B. Basis of Accounting

The financial statements of the University have been prepared on the accrual basis, except that depreciation is not recorded in compliance with GASB 8, paragraphs 10 and 11. The statement of current funds revenues and expenditures and other changes is a statement of financial activities of current funds related to the current reporting period. It does not purport to present the results of operations or the net income or loss for the period as would a statement of revenues and expenses.

To the extent that current funds are used to finance plant assets, the amounts so provided are accounted for as (1) expenditures, in the case of normal replacement of movable equipment and library books; (2) mandatory transfers, in the case of required provisions for debt amortization and interest and equipment renewal and replacement; and (3) transfers of a nonmandatory nature for all other cases.

C. Fund Accounting

In order to ensure observance of limitations and restrictions placed on the use of resources available to the University, the accounts of the University are maintained in accordance with the principles of fund accounting. This is the procedure by which resources for various purposes are classified for accounting and reporting purposes into funds that are in accordance with activities or objectives specified. Separate accounts are maintained for each fund; however, in the accompanying financial statements, funds that have similar characteristics have been combined into fund groups. Accordingly, all financial transactions have been recorded and reported by fund group.

Within each fund group, fund balances restricted by outside sources are so indicated. Externally restricted funds may only be utilized in accordance with the purposes established by the source of such funds and are in contrast with unrestricted funds over which the University through the Board of Higher Education retains full control to use in achieving any of its institutional goals.

All gains and losses arising from the sale, collection, or other disposition of investments and other noncash assets are accounted for in the fund which owned such assets. Ordinary income derived from investments, receivables and the like, is accounted for in the fund owning such assets, except for income derived from investments of endowment and similar funds, which income is accounted for in the fund to which it is restricted or, if unrestricted, as revenues in unrestricted current funds.

All other unrestricted revenue is accounted for in the unrestricted current fund. Restricted gifts, grants, appropriations, contracts, endowment income, and other restricted resources are accounted for in the appropriate restricted funds. Restricted current funds are reported as revenues and expenditures when expended for current operating purposes.

Current Funds:

Unrestricted current funds (including auxiliary enterprises) consist of funds over which the Board of Higher Education retains full control to use in achieving any of its authorized institutional purposes. Restricted current funds are externally restricted funds which may be utilized only in accordance with the purposes established by their source.

Loan Funds:

Loan funds consist of federal, state, and institutional resources which have been made available for financial loans to students.

Endowment Funds:

Endowment funds are subject to the restrictions of gift instruments requiring that the principal be invested in perpetuity and the income only be utilized.

While quasi-endowment funds have been established by the governing board for the same purposes as endowment funds,

any portion of quasi-endowment funds may be expended when approved by the governing board.

Plant Funds:

The plant fund consists of (1) unexpended plant funds which are to be used for the construction or acquisition of physical properties for institutional purposes; (2) retirement of indebtedness and renewal and replacement funds, which are funds set aside for debt service charges and major maintenance items on institutional properties in accordance with the terms of the bond indenture; and (3) investment in plant funds expended for and thus invested in institutional properties.

Agency Funds:

The University acts solely as an agent in the handling of these funds. Consequently, transactions of these funds do not affect the operating statements of the University.

D. Budgetary Process

Legislation requires the Board of Higher Education to present a unified budget request covering the needs of all of the institutions under its control to the Governor through the director of the budget. The Governor is required by legislation to present his budget to the General Assembly at the beginning of each session. The General Assembly enacts the budget of the various institutions at an object level (Salaries and Wages, Operating Expenses, Equipment, Capital Improvements, Other) through passage of specific appropriation acts. Before signing the Appropriation Acts, the Governor may veto or reduce any specific appropriation, subject to legislative override. Once passed and signed the budget becomes the state's financial plan for the next two years. The Board has the authority to transfer funds among the University's approved object categories by notifying the Office of Management and Budget in writing. Only the legislature, however, may transfer money between institutions. The University has until July 31 of each biennium year end to submit revenues and expenditures for recognition within the biennium. Expenditures and revenues received after July 31 are applied to the next biennium. The University does not record encumbrances on its financial statements.

Board policy requires the University to submit biennial and annual budgets for approval by the full board. These budgets are prepared on an accrual basis. These annual budgets are prepared within the framework of the legislative approved appropriations and become the University's financial plan for the coming year. The Board allows the University certain discretion in transferring funds between departments.

E. Cash and Cash Equivalents

Cash balances from funds are pooled and invested to the extent available and allowable in authorized investments. Cash equivalents are defined as money market funds or other highly liquid investments with original maturities of three months or less that can readily be converted to cash without any loss of principal or interest.

F. Receivables

Receivables include primarily interest receivable from the State Land Department; amounts due from students for Perkins and other federal loans, and short term institutional loans; tuition, fees, room and board, and apartment rent; federal revenue amounts and accrued interest on investments; patient receivables for the hospital and the

Family Practice Centers. An allowance for doubtful accounts/notes is included in the financial statement as an analysis of doubtful accounts/notes indicates that there is a reasonable possibility that the full amount of the receivable will not be collected.

G. Interfund Receivables/Payables

During the course of operations, numerous transactions occur between individual funds for goods provided or services rendered. These receivables and payables are classified as "Due From Other Funds" or "Due to Other Funds" on the balance sheet. The restricted current funds have a \$1,672,590 overdraft of its share of pooled cash on June 30, 1994, caused by the timing of federal expenditure reimbursements. This overdraft appears on the balance sheet as a Due to Other Funds in the restricted current funds and a corresponding Due From Other Funds in unrestricted current funds. Such borrowings are of a temporary nature and are liquidated when reimbursement is received from the grantor agency.

H. Inventories

Inventories consisting of food, books and other merchandise and supplies are stated at the lower of cost (generally determined on the first-in, first-out or moving weighted average method) or fair market value.

I. Plant Assets

Buildings and building additions acquired prior to June 30, 1965, are stated at appraised value determined as of 1965. Subsequent building additions, land, and equipment are stated at cost, or if contributed to the University, at fair market value at date of gift. Library acquisitions are added at cost or fair market value while library deletions are removed at average cost calculated on beginning inventory valuation plus current year additions. The University capitalizes equipment costing over \$750 in accordance with Section 54-27-21 of the North Dakota Century Code. Other plant assets are capitalized in accordance with Board of Higher Education policies. Primary criteria for capitalization include a useful life of one year or more and a cost in excess of \$1,000. No depreciation is recorded in the accounts.

J. Deposits

Money received in advance for subsequent year residence hall and apartment reservations and aviation program flight training costs paid in advance are shown as deposits.

K. Accumulated Unpaid Vacation and Sick Pay

Annual leave is a part of permanent employees' compensation set forth in subsection 14 of Chapter 54-06 of the North Dakota Century Code. Employees are entitled to earn leave based on tenure of employment, within a range of a minimum of one working day, to a maximum of two working days per month, to be fixed by rules and regulations adopted by the employing unit. Employees are paid for all unused annual leave upon termination or retirement. Employees who vest at 10 years of creditable service are paid one-tenth of their accumulated sick leave under section 54-06-14 of the North Dakota Century Code.

The liability for accumulated unpaid annual and sick leave is reported in the current fund, and will be funded by state appropriations, federal funds, or other miscellaneous sources available in future years when the liability will be liquidated. The net change in the liability is recorded as an other addition or deduction within current funds.

L. Restatement of Prior Year Balances**1. GASB 16 Restatement**

For the year ended June 30, 1994, UND implemented Statement 16 of the Governmental Accounting Standards Board relating to compensated absences (sick leave). This resulted in a liability and a corresponding annual leave deduction being recognized in current funds unrestricted. The financial statements for the year ended June 30, 1993, have been restated to reflect this adjustment, as shown below.

	1993 Audit Report DR (CR)	1993 Adjustment DR (CR)	1993 Restated DR (CR)
BALANCE SHEET:			
Accrued Leave Payable	(2,821,980)	(792,128)	(3,614,108)
Fund Balance	(9,128,551)	792,128	(8,336,421)
STATEMENT OF REVENUES, EXPENDITURES AND OTHER CHANGES:			
Accrued Annual Leave Deduction	147,895	792,128	940,023
Net Inc/Dec for Year	(1,686,846)	792,128	(894,718)
STATEMENT OF CHANGES:			
Accrued Annual Leave Deduction	149,245	792,128	941,373
Net Inc/Dec for Year	(1,686,846)	792,128	(894,718)
Fund Balance	(12,252,934)	792,128	(11,460,806)

2. Unrecorded Revenue Restatement:

For the year ended June 30, 1993, it was determined that the Medical Center's one mill tax levy, established by Article X, section 10, of the North Dakota Constitution, had been deposited into the state's general fund rather than into the Medical Center's operating fund. To correct this situation, the June 30, 1993, financial statements relative to current funds unrestricted were restated as follows:

	1993 Audit Report DR (CR)	1993 Adjustment DR (CR)	1993 Restated DR (CR)
BALANCE SHEET:			
Accounts Receivable	6,649,083	533,774	7,182,857
Fund Balance	(7,090,503)	(533,774)	(7,624,277)
STATEMENT OF REVENUES, EXPENDITURES AND OTHER CHANGES:			
Net Inc/Dec for Year	1,946,491	533,774	2,480,265
Sales & Services — Hospital	(11,814,079)	(533,774)	(12,347,853)
STATEMENT OF CHANGES:			
Net Inc/Dec for Year	1,946,491	533,774	2,480,265
Education and General	(161,858,782)	(533,774)	(162,392,556)
Fund Balance	(9,637,604)	(533,774)	(10,171,378)

M. Prepaid Items

Payments to vendors for services that will benefit periods beyond June 30, 1994, are recorded as prepaid items.

N. Memorandum Only — Total Column

Total columns on the balance sheet are captioned "memorandum only" to indicate that they are presented only to facilitate financial analysis. Data in these columns does not present financial position, results of operations, or changes in financial position in conformity with generally accepted accounting principles.

NOTE 2 — DEPOSITS AND INVESTMENTS

The deposit and investment policies of the State of North Dakota are governed by NDCC 6-09-07, 15-55-05, 15-55-06, 15-67-04, and 21-04-02. NDCC 6-09-07 states, "All State funds must be deposited in the Bank of North Dakota..." or must be deposited in accordance with constitutional and statutory provisions.

NDCC 15-55-05 and 15-55-06 governs the investment of proceeds of revenue bonds and revenues pledged to bondholders. Such proceeds must be invested in the Bank of North Dakota, in a separate fund in the state treasury or in a duly authorized depository for state funds that is a member of the federal deposit insurance corporation. The Board of Higher Education may invest such funds in direct obligations of, or obligations the principal of and interest on which are guaranteed by, the United States of America, or obligations of the state of North Dakota or of any municipality as defined in section 21-03-01. NDCC 15-67-04 applies to the investment of endowments governed by a gift instrument. Subject to any limitations in the gift instrument such funds may be invested in any real or personal property deemed advisable by the governing board.

NDCC 21-04-02 provides that public funds belonging to or in the custody of the State shall be deposited in the Bank of North Dakota.

	6-30-94 Carrying Amount	6-30-94 Bank Balance	Category		
			1	2	3
Cash/BND	\$ 1,012,989	\$ 2,577,199			\$ 2,577,199
Cash/Other	3,350	1,184,775	\$1,184,775		
Sav/BND	13,405,037	13,405,037			13,405,037
Sav/Other	1,896,987	1,896,987	1,896,987		
CD/BND	14,657,593	14,657,593			14,657,593
CD/Other	2,083,655	2,083,655	2,083,655		
Total Deposits	\$33,059,611	\$35,805,246	\$5,165,417		30,639,829
Add:					
Cash on Hand/ Petty Cash	\$ 200,274				
UND-Williston	826,773				
UND-Lake Region	945,034				
Less:					
Amts. Credit Risked as Deposits but Reported as Investments	(16,741,247)				
Cash per BS	<u>\$18,290,445</u>				

B. Investments

This classification includes long-term investments which are stated at cost, amortized cost, or at fair market value at time of gift, if contributed to the institution, aggregating \$30,575,744.

The table on page 12 provides information about the credit risks associated with the University of North Dakota's investments and the market values. The investments include U.S. Treasury bills, bonds and notes. Category 1 includes investments that are insured or registered in the name of the governmental entity, or securities held by the entity or its

A. Deposits

This classification includes cash on hand, cash in bank, regular and money market savings accounts, certificates of deposit and time saving certificates. At June 30, 1994 and 1993 the deposits can be categorized to indicate the level of risk assumed in accordance with GASB Statement 3, "Deposits with Financial Institutions, Investments (including Repurchase Agreements), and Reverse Repurchase Agreements." Category 1 includes deposits that are insured or collateralized with securities held by the entity or its agent in the entity's name. Category 2 includes deposits collateralized with securities held by the pledging financial institution's trust department or agent in the entity's name. Category 3 includes uncollateralized deposits, including any bank balance that is collateralized with securities held by the financial institution, or by its trust department or agent but not in the entity's name. Deposits with the Bank of North Dakota are considered uncollateralized, however, these deposits are guaranteed by the state of North Dakota (North Dakota Century Code Chapter 6-09-10). The following summary presents credit risk information by carrying amount, bank balance, and category.

agent in the entity's name. Category 2 includes uninsured and unregistered investments, with securities held by the counterparty's trust department or agent in the entity's name. Category 3 includes uninsured and unregistered investments, with securities held by the counterparty, or by its trust department or agent but not in the entity's name. Investments with the Bank of North Dakota are considered as uninsured, however, these investments are guaranteed by the state of North Dakota (North Dakota Century Code Chapter 6-09-10).

	Category			6-30-94 Carrying Amount	Market Value
	1	2	3		
US T Bonds (Other)	\$1,402,581			\$ 1,402,581	\$ 1,402,581
US T Bills (BND)			\$ 1,958,106	1,958,106	1,955,607
US T Bills (Other)	19,977			19,977	19,983
Bonds/Notes (BND)			361,641	361,641	358,200
Bond/Note (Other)	665,967		4,506,020	5,171,987	5,093,370
Stock (Other)	508,713		3,284,993	3,793,706	4,652,113
Total	\$2,597,238		\$10,110,760	\$12,707,998	\$13,481,854
Add:					
Amounts Credit Risked as Deposits but Reported as Investments				\$16,741,247	
Mutual Funds—Not Credit Risked				760,164	
UND—Williston				332,177	
UND—Lake Region				34,158	
Investments per balance sheet				<u>\$30,575,744</u>	

NOTE 3 — ENDOWMENT FUNDS

The endowment and similar funds reported herein are those only in the custody of UND, and do not include the Federal Land Grant Fund held by the State Land Commissioner. The annual proceeds from assets held by the State Land Commissioner are deposited into the University's operating fund at the State Treasurer and are used for current operating

purposes. Total assets held by the State Land Commissioner on proceeds for the fiscal years ended June 30, 1994 and 1993 are as follows:

	1994	1993
Assets	\$5,312,541	\$5,243,625
Proceeds	416,000	416,000

NOTE 4 — LEASE RECEIVABLE

The University has an agreement with NATCO, Inc., whereby NATCO, Inc., will lease a building with a cost of \$6,208,845, from the University. The rental term with

renewal options is 30 years. The quarterly rent payment is fixed to amortize \$3,500,000 plus variable interest (currently 4.79%) over a 15-year period due June 30, 2003.

NOTE 5 — NOTES PAYABLE

The University has a note payable to the Bank of North Dakota in the original amount of \$3,500,000. The note bears interest at the rate of 4.79% per annum. The University is required to have an amount at least equal to the loan amount on deposit with the Bank of North Dakota. The interest earned on these deposits will be 3.79% per annum. Payments of \$94,615 are due quarterly. The note matures on June 30, 2003. The outstanding balance at June 30, 1994, was \$2,629,824. The following is the future principal payments required:

1995	\$ 127,002
1996	263,258
1997	276,096
1998	289,561
1999	303,682
Thereafter	1,370,225
	<u>\$2,629,824</u>

NOTE 6 — BONDS PAYABLE

The bonds payable of the plant funds consist of the following:

	Interest Rate	1994 Balance	1993 Balance
Housing Revenue Bonds of 1963—Lambda Chi	4%		\$ 5,000
Rehabilitation Revenue Bonds of 1974	6-6.5%	\$ 1,470,000	1,570,000
Housing and Auxiliary Facilities Refunding 85A	5.75-9.25%	395,000	760,000
Housing and Auxiliary Facilities Refunding 88A	6.5-7.85%	21,620,000	21,620,000
Housing and Auxiliary Facilities Revenue Bonds	5-7.4%	370,000	400,000
Energy & Environmental Research Revenue Bonds	4.4-6.4%	2,620,000	2,845,000
Housing and Auxiliary Facilities Revenue Bonds	4.25-5.25%	5,160,000	
UND—Williston	3.0-6.5%	881,000	936,000
UND—Lake Region	4.2-6.0%	1,264,000	1,331,000
Grand Total		<u>\$33,780,000</u>	<u>\$29,467,000</u>

The principal and interest on the bonds are payable only from the net income of specific auxiliary activities, from designated student fees, or from debt service reserve funds.

The minimum repayments required on the outstanding bonds payable at June 30 are as follows:

1995	\$ 3,220,927
1996	3,245,872
1997	3,249,127
1998	3,256,385
1999	3,252,157
Thereafter	41,795,452
Total Payments	\$58,019,920
Less Interest Amounts	(26,384,920)
Add:	
UND-Williston Branch	881,000
UND-Lake Region Branch	1,264,000
Bond Principal Amount	<u>\$33,780,000</u>

Housing and Auxiliary Facilities Revenue Bonds, Series 1993A, were issued August 1993, to finance the costs of construction of a Community Center, renovation of McCannel Hall, construction of new parking lots, and the portion of the costs of issuing the Series 1993 bonds.

Housing and Auxiliary Facilities Refunding Revenue Bonds, Series A 1988, Special Obligation Revenue Bonds, Series C, 1988, were originally issued to: (a) fund the recall of the Housing and Auxiliary Facilities Refunding Series 1985A as of October 1, 1995, (b) provide an escrow fund from which the future debt service requirements for the Series A 1988 issues will be paid through April 1, 1995, and (c) provide an escrow fund to provide for an in-substance defeasance of the Series C 1988 issue. The principal amounts outstanding as

of June 30, 1994, of the original bonds refunded by the Series A 1988 and Series C 1988 bonds which were refunded totaled \$19,410,000 and \$0, respectively.

Housing and Auxiliary Facilities Refunding Series 1985A bonds were originally issued, in addition to financing construction costs, to refund in advance of maturity the outstanding advanced refunding bonds, namely: (a) \$14,520,000 of Housing and Auxiliary Facilities Revenue Bonds Series 1984A, and (b) \$3,750,000 of Housing and Auxiliary Facilities Revenue Bonds Series 1984B. The principal amounts outstanding as of June 30, 1994, of the original bonds refunded by the advance refunding of 1985 totaled \$16,555,000.

Housing and Auxiliary Revenue Refunding Bonds Series 1984A, which were included in the advance refunding of 1985, as described above, were originally issued in 1984 for the purpose of advance refunding certain outstanding bonds (Series I through Series N). The principal amounts outstanding as of June 30, 1994, of the original bonds refunded by the advance refunding of 1984 totaled \$10,000,000.

Housing and Auxiliary Revenue Bonds Series I and Series J, which were included in the advance refunding of 1984 as described above, were originally issued in 1975 for the purpose of advance refunding certain outstanding bonds of the University. The principal amounts outstanding as of June 30, 1994, of the original bonds refunded by the advance refunding of 1975 totaled \$2,740,000.

All of the refunded bonds are considered "defeased" and have debt service needs covered by U.S. Government securities which are held in a special trust administered by the Bank of North Dakota. As such, neither the assets of the trust nor the related bonds payable are included in the accompanying balance sheet.

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NOTE 7 — LEASES

A. Capital Leases

The University has certain lease agreements in effect which are considered capital leases. The assets purchased under these leases are included in the plant funds. The following is a schedule by years of future minimum lease payments under capital leases, together with the net present value of the net minimum lease payments as of June 30, 1994:

Year ending June 30:	
1995	\$ 4,996,229
1996	5,257,273
1997	4,898,824
1998	4,799,132
1999	3,649,852
Thereafter	18,883,365
Total minimum lease payments	\$42,484,675
Less amount representing interest	10,854,646
Present value of net min. lease payment	<u>\$31,630,029</u>

Certificates of Participation totalling \$20,450,000 were originally issued in 1990 to (1) reimburse the University for certain expenses incurred for capital improvements; (2) to refinance the costs of certain equipment, and (3) to finance the acquisition of certain equipment and real property, to fund a reserve, and to pay the costs of issuance. Subsequent to this issuance, the Legislative Assembly, in HB1003,

directed the University to retire those certificates originally issued for the acquisition of certain equipment and real property and to fund a reserve. Therefore, in December, 1991, \$6,025,000 in certificates were defeased. The principal amount outstanding as of June 30, 1994, of the defeased certificates totalled \$5,515,000.

B. Operating Leases

The University is committed under various operating leases for building space and equipment. These leases are considered for accounting purposes to be operating leases. Future minimum lease payments for these leases are as follows:

Year ending June 30:	UND	UND-Williston
1995	\$ 692,931	\$ 63,951
1996	618,779	63,505
1997	533,748	58,605
1998	497,818	58,605
1999	423,752	58,605
Thereafter	2,004,098	151,396
	<u>\$4,771,126</u>	<u>\$454,667</u>

NOTE B — PENSION PLANS

UND participates in the following major retirement programs:

North Dakota Public Employees Retirement System
The system is a state-wide, cost-sharing multiple-employer public employees' retirement system. The payroll for the employees covered by the system and the institutions total payroll is as follows:

	1994	1993
Covered Payroll	\$ 23,260,505	\$22,322,496
Total Payroll	100,711,214	97,742,905

All permanent employees, as defined by Chapter 54-52 of the North Dakota Century Code, are eligible to participate in the system. Employees are entitled to annual pension benefits beginning when the sum of age and years of credited service equal or exceed 90, or at normal retirement age (65) equal to 1.69% (1.725% effective August 1, 1993) of their final average annual salary for each year of service. Benefits vest fully at age 65 or on reaching five years of service. The system also provides death and disability benefits. Benefits are established by state statute. There are no securities of the employer or related parties included in the assets of the plan.

State statute establishes employee and employer contributions at 4% and 4.12% respectively, of each participating employee's gross wage. The state is currently paying the full employee contribution. Administrative expense and prior service costs are to be funded through the employer contributions. The required contributions are determined using an entry age normal actuarial funding method. Contribution requirements are not determined individually for the participating employers. The institution has no further liability once annual contributions are made. There were no changes in the contribution rate during the fiscal years ended June 30, 1994 and 1993. Contribution information is as follows:

	1994	1993
Institutional Contribution	\$1,881,305	\$1,820,419
% of Total Contributions	7.56%	7.26%

Employment Class	Years of Service	By the Participant	By the Institution
I and III	0 thru 10	1.5%	9.5%
	over 10	2.0%	10.0%
II	0 thru 2	0.5%	4.5%
	3 thru 10	1.5%	9.5%
	over 10	2.0%	10.0%
IV	0	1.0%	9.0%

Plan contributions by participants are made on a tax-deferred basis in accordance with Section 414(h) (2) of the Internal Revenue Code. All contributions are applied as premiums to retirement annuity contracts owned by the participant. The payroll for employees covered by the system and the institutions total payroll is as follows:

	1994	1993
Covered Payroll	\$ 62,206,165	\$58,406,808
Total Payroll	100,711,214	97,742,905

Funding Status and Progress:

The pension benefit obligation, which is the actuarial present value credited projected benefits, is a standardized disclosure measure of the present value of pension benefits, adjusted for the effects of projected salary increases and any step-rate benefits, estimated to be payable in the future as a result of employee service to date. The measure is intended to help users assess the System's funding status on a going-concern basis, assess progress made in accumulating sufficient assets to pay benefits when due, and make comparisons among public employee retirement systems and employers. The System does not make separate measurements of assets and pension benefit obligations for individual employers. The pension benefit obligation for the System, determined through actuarial valuation performed as of those dates is as follows:

	1994	1993
Net Assets Available	\$540,289,796	\$528,004,471
Pension Benefit Obligation	450,641,400	413,208,800
Over (Under) Funded	\$ 89,648,396	\$114,795,671

Trend Information:

Ten-year historical trend information showing the System's progress in accumulating sufficient assets to pay benefits when due is presented in the System's June 30, 1994 audited financial statements.

TIAA-CREF Retirement Plan

Description of Plan:

This is a privately administered defined contribution retirement plan which provides individual retirement fund contracts for eligible employees as defined by the Board of Higher Education in its approved TIAA-CREF retirement resolution. Employees are eligible for retirement benefits after attaining the age of 65, which is payable periodically for life. All benefits vest immediately to the participant. The plan requires employee and employer contributions be based on a classification system and years of service based on the schedule shown below:

The state has no further liability once annual contributions are made. Contribution information is as follows:

	1994	1993
Institutional Contribution	\$6,619,157	\$6,298,682
% of Total Contributions	.25%	.17%

NOTE 9 — POST-RETIREMENT BENEFITS

A. State Group Health Plan

Section 54-52.1-03.2 of the North Dakota Century Code establishes a Retiree Health Benefits Fund (Fund) to provide members who receive retirement benefits from the Public Employees Retirement System a credit toward their monthly health insurance premium under the state health plan based upon the member's years of credited service. The Fund is advance-funded on an actuarially determined basis.

The employer contribution for the Public Employees Retirement System is set by statute on an actuarially determined basis at 1% of covered compensation. Employees participating in the retirement plan as part-time/temporary members are required to contribute 1% of their covered compensation to the Retiree Health Benefits Fund. Employees purchasing previous service credit are also required to make an employee contribution to the Fund.

Retiree health benefits and death and disability benefits are set by statute. Employees who are receiving monthly retirement benefits from the Public Employees Retirement System, or an employee receiving disability benefits, or the spouse of a deceased annuitant receiving a surviving spouse benefit are eligible to receive a credit toward their monthly health insurance premium under the state health plan. The benefits are equal to \$4 (\$4.50 effective August 1, 1993) for each of the employee's, or deceased employee's years of credited service not to exceed the premium in effect for selected coverage. The retiree health benefit is also available for early retirement with reduced benefits.

Actuarial valuations of the Fund were done as of June 30, 1993, using May 31, 1993 salary information. The actuarial cost method used is the Projected Unit Actuarial Credit Cost Method. The significant actuarial assumptions used to determine funding requirements are:

- a rate of return on the investment of present and future assets of 8 percent,
- pre- and post-mortality life expectancies of participants based upon 1983 Group Annuity Mortality Tables and the Pension Benefit Guaranty Corporation's Disabled Life Mortality Tables,
- rates of withdrawal from active service before retirement for reasons other than death, rates of disability, rates of participation, and expected retirement ages developed on the basis of actual plan experience, and
- administrative expenses of \$90,000 per year.

The following are the plan amendments and the effect on the employer's contribution rates expressed as a percent of covered payroll. These changes had no effect on the actuarial accrued liability. There were no changes in actuarial assumptions or methods.

	As a Percentage of Covered Payroll
Increased Benefits	0.11%
Rule of 88	0.01%
Total	0.12%

Plan assets are valued at market value for actuarial purposes. The actuarially determined contribution requirements are not available for individual entities. UND's contribution and percentage of total contributions is as follows:

	1994	1993
Institutional Contribution	\$192,970	\$186,104
% of Total Contributions	6.16%	6.16%

1994 1993

Employee membership data is as follows:

Retirees Receiving Benefits	2,105	1,903
Active Participants	15,101	14,965
Total Membership	17,206	16,868

According to the Projected Unit Credit Cost Method, the actuarial accrued liability and the unfunded actuarial accrued liability of the Retiree Health Benefits Fund are as follows:

	1994	1993
Actuarial Accrued Liability	\$41,995,100	\$37,875,000
Net Assets Available for Benefits	8,099,471	7,027,070
Unfunded Accrued Liability	\$33,895,629	\$30,847,930

B. Early Retirement Agreements

When early retirement is deemed to be in the mutual benefit of an employee and the institution, the Board of Higher Education has adopted Policy 703.1 on Early Retirement. This policy applies to tenured faculty, the chancellor, vice chancellors, and other system office professional staff, presidents, executive deans, vice presidents, and provosts of the institutions. Institutions must use an approved standard form contract which will allow specifics to be added as they apply to individual cases. There are three retirement options available to employees. These options are: Tenured (Contract) Purchase Option; Phased Retirement Option; and Reversible Retirement Option.

Under the Tenured (Contract) Purchase Option the employee is eligible for payment of up to 100% of the employee's final contract salary if the sum of the employee's age and total years of employment equals 70 or greater (65 or greater through June 30, 1995). Payments will be pursuant to the approved agreement but can not be made until at least 90 days after the date of the Early Retirement Agreement. During the fiscal year ended June 30, 1994, 20 UND employees and one UND-Lake Region employee elected to participate in this option at a total cost to the institutions of \$1,108,092 and \$8,007, respectively. Amounts payable to employees at June 30, 1994 is \$539,865.

The Phased Retirement is retirement over a period of time. The percentage of work load each year is negotiated. The University may pay all or any part of the retirement contributions on the current salary or any part of the individual's salary until the individual terminates all employment. During the fiscal year ended June 30, 1994, no employees elected to participate in this option.

Reversible Retirement is an option which basically lets an employee test retirement to see if he or she finds retirement satisfactory. If not, the employee may return to full employment. This is a maximum 2 year time limit from the contract date for the individual to return to work. During the fiscal year ended June 30, 1994, no employees elected this option.

NOTE 10 — RELATED AND AFFILIATED FOUNDATIONS

There are certain non-profit foundations whose purpose is to provide support to the University. The following is a description of the foundations and a summary of the transactions between the foundation and the University:

A. UND Alumni Association and Foundation — The purpose of this foundation is to provide financial support to the University. During the fiscal year, contributions to the University totaled \$3,340,060. The foundation had total assets of approximately \$51,388,153 at June 30, 1994.

B. UND Aerospace Foundation — The purpose of this foundation is to provide support and compliment the University's aviation program. During the year, the foundation purchased services from the University for flight training programs totaling approximately \$4,498,700. The total assets of the foundation at June 30, 1994, approximate \$4,080,020.

C. The Fellows of UND — This organization is established for the purpose of supporting the University. This includes ownership of certain buildings for use by the University. Total assets of the organization at April 30, 1994, totaled \$2,860,347.

D. The UND-Lake Region Foundation — This organization is established for the purpose of supporting UND-Lake Region. The Foundation reported total assets of approximately

\$1,285,217 at June 30, 1994. The University received \$128,671 of support from the foundation during the year ended June 30, 1994.

E. The University Foundation at Williston — The foundation is a separate North Dakota nonprofit corporation whose function is to provide financial and other assistance to the University of North Dakota—Williston. The June 30, 1993 unaudited financial statements of the foundation reflect assets and corresponding liabilities and fund balance of \$1,589,190. Assets consist primarily of cash, investments and property and equipment. Revenues for the year ended June 30, 1993 totaled \$423,623 and consist of gifts, rental, gaming and investment income. The June 30, 1994 statements are not available at this time.

During the year ended June 30, 1994, the University of North Dakota—Williston paid the foundation \$58,605 for the lease of campus buildings.

F. Various Other Foundations — The University is also supported by the School of Engineering and Mines Foundation, Law School Foundation, Medical Education Research Foundation, Rehabilitation Hospital Foundation and Williston Alumni Association. The transactions between these foundations and the University were not significant.

NOTE 11 — COMMITMENTS AND CONTINGENCIES

The Fifty-first Legislative Assembly of the State of North Dakota enacted House Bills No. 1037 and 1669 and the Fifty-third Legislative Assembly enacted House Bill No. 1020, authorizing the Industrial Commission of North Dakota acting as the North Dakota Building Authority to finance capital construction projects, including handicap-accessibility and special assessments, at institutions under the control of the State Board of Higher Education. Under the terms of the resolution approving this financing, the State Board of Higher Education has agreed to lease the facilities from the Building Authority upon terms sufficient to pay when due the principal and interest on the Bonds, subject to appropriations from the Legislative Assembly. The payments are currently financed through a general fund appropriation. Should the Legislature discontinue financing such payments, the University would become directly liable for the said payments. The total amounts outstanding for construction financed by the 1990 C series, refunded by the 1993 A series, at June 30, 1994, are approximately \$1,914,893 for Medical Science North, \$3,673,571 for Abbott Hall and \$423,363 for the Handicapped Accessibility Project. The amount outstanding for the 1993 B series is \$3,089,907.

The University has long held that medical residents are students for social security purposes and therefore has not

subjected payroll payments to the residents to social security tax. In May 1994, the University was notified by the Internal Revenue Service that the Social Security Administration does not consider medical residents students for social security purposes. If that is the case, the University would be liable for the employer and employee share of the social security taxes for calendar years 1991, 1992, and 1993 for the medical residents. The University is vigorously contesting this issue. The amount of the potential assessment has not been finalized. No liability for these taxes has been recorded in the financial statements.

The University has various construction projects in progress at June 30, 1994. Total commitments for construction projects amounted to \$14,538,447 of which \$13,943,853 has been expended and recorded as plant under construction in the plant funds.

Amounts received and expended by the University under various federal and state programs are subject to audit by governmental agencies. In the opinion of management, audit adjustments, if any, will not have a significant effect on the financial position of the University.

NOTE 12 — CURRENT UNRESTRICTED ACCOUNTS RECEIVABLE

The accounts receivable and allowance for doubtful accounts is composed of the following categories at June 30, 1994:

	Receivable Balance	Allows for Doubtful Accounts	1994 Net	1993 Net
Medical Rehabilitation Hospital	\$3,274,056	\$408,462	\$2,865,594	\$2,857,671
Family Practice Centers	2,346,834	351,574	1,995,260	1,448,088
Residency Program	238,287		238,287	190,010
Aviation	316,771	10,750	306,021	297,636
Other	344,644	20,813	323,831	1,210,729
UND-Williston Branch	5,444	880	4,564	40,323
UND-Lake Region Branch	119,229	11,867	107,362	116,392
Total	\$6,645,265	\$804,346	\$5,840,919	\$6,160,849

NOTE 13 — LEASED PROPERTY

The University of North Dakota has leased property to related parties at below fair market value, as noted below:

Phi Delta Theta:

1.09 acres, for a term of 99 years, commencing April 7, 1978. There are no rental payments.

Alumni Association and the UND Foundation:

A building located on the northwest corner of University Drive on the main campus of the University. The term shall be fifteen years, effective November 1, 1979, with a rental payment of \$1/year.

Additional copies are available at:

Office of the Vice President for Finance
Twamley Hall
University of North Dakota
Grand Forks, North Dakota 58202

Prepared by the Controller's Office, Peggy Lucke, Controller.
Assistance by the Office of University Relations, James F. Penwarden, Director.

UND is an equal opportunity/affirmative action institution. For additional information on equal opportunity policies and procedures, see UND catalogs and other major printed pieces.

1993 - 1994

Financial Report

University of
North Dakota
at Grand Forks