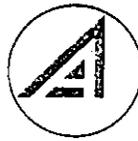


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THE AEROSPACE CORPORATION



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22 May 1986

Mr. Edward DeLaney, NE-23  
Division of Facility & Site  
Decommissioning Projects  
U.S. Department of Energy  
Germantown, Maryland 20545

Dear Mr. DeLaney:

AUTHORITY REVIEW FOR MED OPERATIONS  
CONDUCTED AT AMES LABORATORY

Enclosed please find Attachment 1, a summary of the facts and issues relating to the authority for remedial action at Ames; Attachment 2, a list of options; and Attachment 3, a revised draft authority review. Please note, I have not reproduced the attachments to the authority review that were previously provided with the preliminary draft on 8 October 1985. Please refer to that letter for copies of the older contracts. A copy of the most recent contract modification is included with this authority review as it was not previously included.

By copy of this letter, I am providing General Counsel's office (Mr. Steve Miller) this material for review. I would appreciate it if the enclosed material (including the 8 October 1985 records) could be reviewed by 3 June 1986 so that (as you and I have discussed) you, Mr. Miller and I could meet on 4 June 1986 to resolve the authority issue and then finalize the authority review documents. If you or Mr. Miller cannot meet on 4 June 1986, please let me know and I will coordinate another date.

Sincerely,

Andrew Wallo, III  
Project Engineer  
Environmental Controls and  
Analysis Directorate  
Government Support Division

bcc: C. Young  
S. Jones  
F. Newman (w/o)

AW/sb  
Enclosures  
cc: R. Lewis (w/o)  
S. Miller  
File

## FACTS CONCERNING AMES IOWA AUTHORITY

- This facility was used by DOE Predecessors in the Development of Nuclear Energy and portions of the site are still the operating site for the Department's Ames Laboratory.
- The current Operating Contract is a continuation of one of the initial MED contracts.
- All facilities and operations now in use or used since the 1950's are under the jurisdiction of the current contract W-7405-ENG-82. This includes the thorium release in 1951 and 1952.
- Parts of Iowa State University used for MED contract work have been released to the University for unrestricted use. The radiological condition of these areas is not clearly defined. (There is no immediate hazard).
- The facilities in question are those used in the 1940's for MED work and have since been released:
  - o Physical Chemistry Annex No. 1
  - o Annex No. 2
  - o WPA Storage Shed
  - o Barn Stall and Shed for U Storage
  - o College Dump and
  - o Connecting Traffic Routes.
- Work at these facilities was conducted under OEM<sub>sr</sub>-356, OEM<sub>sr</sub>-433, and OEM<sub>sr</sub>-410, W-7405-eng-7, W-7405-eng-82 and W-7405-eng-90.
- An October review of the previous records and contracts suggest there was DOE authority to include these facilities in FUSRAP. However,

Contract W-7405-eng-82 Mod. No. M069 now in effect indicates in Article 17.a.(3)(a) that restoration of facilities modified under W-7405-82, W-7405-90, W-7405-7, and OEM<sub>SR</sub>-433 are clearly covered under the active contract. However, it is not clear if this includes decontamination of real property and disposal of material in the dump. It specifically relates to construction or alterations.

- No information has been found documenting the condition of the facilities of interest at the time of release nor the contractual condition of the release.

### Issues

- 1) There is not sufficient radiological data to determine if the subject areas are contaminated above guidelines. There is potential for such contamination. A site visit (preliminary survey) could put this issue to rest but it is likely the result would determine a full survey is needed.
- 2) There would be authority under FUSRAP to investigate there site, if authority is not superseded by the active contract. As indicated, records reviewed to date do not give a totally clear picture of the actions at release of the properties. Additional reviews of Ames records may give more information but discussions with Ames personnel indicate the records for the area of interest to be minimal (50/50 chance). Should additional review time be dedicated to this site or can a decision be made on available records?
- 3) If the active contract does supersede the FUSRAP authority, what steps are appropriate for elimination? Who should be notified that our review found inadequate documentation to demonstrate the site meets criteria?
  - Ames Lab?
  - CHO?
  - ASEH?

## OPTIONS

In regard to the Authority issue, there are 3 basic options:

- 1) Collect more data
  - Aerospace can continue records searches but I believe little more useful information will be obtained and considerable time would be needed for the review
  - A preliminary survey could be conducted and it might show no action is required, hence, no authority decision need be made. However, I believe based on data available, that the preliminary survey would just indicate a more detailed designation survey is needed.
- 2) Make a decision on data available
  - Determine that there is FUSRAP authority and schedule a comprehensive designation survey to find out if action is needed or
  - Determine that the program office (CHO/AMES) has authority and notify them and EH of DFSD findings and eliminate the site
- 3) Request the program office (Ames Contracting Officer) to determine if they have authority under the present contract.
  - If they do, turn the site over to them and notify EH.
  - If not, schedule a designation survey and designate the site if remedial action is needed.

Comments

Option 3 would be similar to what was done for Battelle Columbus and Option 2 would be similar to the University of Chicago and Bridgeport Brass, Company site actions. The major difference is that we knew the sites exceeded guidelines in all cases mentioned above. We only suspect it in the case of the released Ames buildings.

AUTHORITY REVIEW  
THE MED/AEC PORTION OF THE IOWA STATE UNIVERSITY  
(FORMERLY IOWA STATE COLLEGE)  
AMES, IOWA

INTRODUCTION

The purpose of this review is to present information pertaining to work performed under sponsorship of the Atomic Energy Commission (AEC), the Manhattan Engineer District (MED), and the Office of Scientific Research and Development (OSRD), and to evaluate factors that may have resulted in the potential for the existence of residual radioactive contamination of the site formerly operated by Iowa State College. Based on available documentation, there is insufficient information to fully characterize the condition of this site; in particular, it is not clear that the site was decontaminated to standards presently used by the Department of Energy (DOE) Formerly Utilized Sites Remedial Action Program (FUSRAP).

The principal sources of information assembled for this review are:

- o Hewlett, Richard G., and O.E. Anderson, Jr., A History of the United States Atomic Energy Commission--Vol.1: The New World, 1939/1946, The Pennsylvania University Press, University Park, Pennsylvania, 1962.
- o Manhattan District History, Book VII: Feed Materials, Special Procurement, and Geographical Exploration, Vol. 1: Feed Materials and Special Procurement, 1947.
- o Contract No. W-7405-eng-7, November 9, 1942, and Supplemental Agreements No. 1-13, dated through January 5, 1946.
- o Contract No. W-7405-eng-82, March 24, 1943, and Supplemental Agreements No. 1-7, dated through August 26, 1947.
- o Contract No. OEMsr-433, effective February 15, 1942, and Supplements No. 1-3, dated through July 9, 1943.

- o Memorandum of Agreement, October 10, 1942, subcontract to the University of Chicago under Contract No. OEMsr-410, dated December 20, 1941.
- o Miscellaneous correspondence and interviews with personnel familiar with the facility.

#### BACKGROUND AND CONTRACT HISTORY

Iowa State College began research and development on uranium metal production for the Government with OSRD Contract No. OEMsr-433, effective as of February 15, 1942, which required investigations on the chemistry and metallurgy of normal "tube alloy" (natural uranium). This work continued under Supplements Nos. 1-3 which extended the work to May 1, 1943, and transferred control and supervision of the research to the War Department. At the same time that this work was underway, the College signed a Memorandum of Agreement on October 10, 1942, making Iowa State College a subcontractor to the University of Chicago, under its OSRD contract OEMsr-410, for the development and production of uranium metal. (work conducted for the University of Chicago is referred to in the documentation as Project 1200, while work for the MED is referred to as Project 1400).

The College also entered into contracts with the War Department, represented by the Manhattan Engineer District. The first such contract is Contract No. W-7405-eng-7, signed on November 9, 1942, requiring the production of uranium metal (code-named Quik-Phix in the documentation). Supplemental Agreements Nos. 1-13, dated through January 5, 1946, required additional metal production and the casting of uranium metal turnings (code-named Fast Feed in the documentation). The final Supplemental Agreement also required that the College dispose of government-owned property. Contract No. W-7405-eng-82, signed on March 24, 1943, and modified Supplemental Agreements Nos. 1-7, dated through August 26, 1947, was related to the design of the government-owned Metallurgy Building. Contract No. W-7405-eng-82 is still in effect with Iowa State University of Science and Technology under Modification No. M069.

Correspondence indicates that responsibility for Contract No. OEMsr-356 under OSRD was to be transferred to the War Department under Contract No. W-7405-eng-90; the details on this contract have not been found. Also, correspondence from November 1943 indicates that the laboratory was engaged in the separation of plutonium from uranium alloys.

The original research work was carried out in the Physical Chemistry Building. The process equipment used to produce uranium metal from green salt (uranium tetrafluoride,  $UF_4$ ) was installed in the Physical Chemistry Annex, later referred to as Annex No. 1. A building located approximately one block northeast of Annex No. 1, built by the Government, originally for storage and later for uranium turnings preparation, was referred to as Annex No. 2.

Operations associated with metal production at Annex No. 1 are known to have contaminated the environment in the early days: one letter states that waste lime and scrap graphite "are being discarded in an open pit on the College grounds" and that crucibles "are being accumulated in an unsightly scrap heap at the back entrance of the Physical Chemistry Annex." In a 1943 survey of the soil at the south end of the Physical Chemistry Annex, contaminated by packaging dross and burning out crucibles, samples were found to contain up to 25.9 percent uranium, requiring the removal of 40 barrels of contaminated soil from the grounds in 1943. In the same year, the dump yielded 250 tons of contaminated material. Following an investigation of reported additional contamination in the dump, assays indicated that the remaining material was less than 0.1 percent uranium metal, indicating that recovery would be uneconomical. No additional decontamination of the soil was indicated in the available documentation.

In early 1943, documentation indicates that storage space was available "approximately one block from the plant," probably a building different from the WPA Storage Shed (described as approximately 3 blocks northeast of the main building) which burned down in May 1943 resulting

in the loss of 200-300 pounds of the 3500 pounds of metal stored within. One letter mentions storage of uranium metal turnings "in an old shed and in an old stall in a barn remote from the present structures." (The location of the shed, or sheds, and the barn have not been identified and their potential for contamination under present land use cannot be evaluated.)

Several pieces of correspondence indicate that MED took responsibility for loss of uranium and recommended methods to reduce the losses occurring in filtrate to the sewer, through washwater discharge, through exhaust of sand-blast dust used in cleaning metal, through poor filters on the ventilation system, and through workmen tracking uranium metal turnings out the door of Annex No. 2 and into the gravel road that connected it to Annex No. 1. Annex No. 2 was used to store green salt and to prepare turnings for casting in Annex No. 1. Documentation indicates that floor sweepings were burned in the open behind Annex No. 2.

The various contracts with MED and OSRD are silent on issues related directly to environmental protection and, typical of contracts written during the era, are more concerned with accountability of the government-owned uranium. The Memorandum of Agreement with the University of Chicago, in Article 3.c, requires that the subcontractor "promptly advise the Contractor whether it elects to have any premises on which alteration work has been done hereunder restored to substantially the same condition as prior to such work; if it elects such restoration, it shall retain all amounts reimbursed by the Contractor therefor and the Contractor shall pay it the net cost of such restoration." In Contract No. W-7405-eng-7, Article IV.1.(i) states that "the Contractor shall have the right to require the Government to remove said facilities in a neat and workmanlike manner." In Supplemental Agreement No. 6, Article XXXV states that the Contractor may "have such premises restored to substantially the same condition as prior to such alterations or construction." It would appear that there is some conflict between Article IV.1.(e) of the original contract, which states that "the

Government shall not be responsible for damages to property of the Contractor...and the Contractor shall save the Government harmless from all such claims," and Article XXXVI of Supplemental Agreement No. 6, which states that "it is the intention of the parties that the Contractor shall be reimbursed, indemnified, and held harmless for an account of all costs, expenses, and liabilities incurred by it in connection with the work"; however, the first clause was standard in contracts and appears to be superseded by the Supplemental Agreement, suggesting that the Government had authority for cleanup of the site. While Article III.3 of the contract requires that "prior to final payment and as condition thereto, the Contractor shall furnish the Government with a release of all claims against the Government," such a release has not been found.

The uranium metal production work conducted for the MED resulted in the production of 1000 tons of virgin metal and 300 tons from scrap by the beginning of 1945.

In 1947, the government-sponsored facilities at Iowa State College were declared a major research facility and became heavily involved in thorium production processes in the new government-owned Metallurgy Building. One report indicates that 65 tons of thorium metal were produced. Today, the DOE-sponsored facilities are collectively referred to as Ames Laboratory. The Ames Laboratory contract may cover the potential contaminated areas. The most recent version of Contract No. W-7405-eng-82, Modification No. M069, contains Article 17. Property paragraph a.(3) which states

After expiration or termination of this contract, or before expiration or termination if DOE so agrees, the Contractor shall elect, with respect to premises owned by the contract ... upon which any alterations, construction or improvement has been done here under (or under Contract No. OEMsr-433, Contract No. W-7405-eng-7, or Contract No. 7405-eng-90 as amended or supplemented) prior to July 1, 1953, whether (i) to retain the benefit of such construction or alteration ... (ii) to

have such premises restored to substantially the same condition as prior to alteration or construction, ... and the Government shall pay the net cost of such alteration ... .

It is not clear whether this paragraph includes contamination or structural "alterations."

Between July, 1951, and August, 1952, a contamination incident occurred in which less than a curie of thorium and mesothorium in filtrate was inadvertently released to the sewer. The incident resulted in the contamination of a portion of the Water Pollution Control Plant, where the sludge was originally stored, and the Municipal Cemetery, the Grand Avenue Underpass, and the Ames Municipal Airport, where the sludge was deposited. Because mesothorium has a short half-life and is located in uninhabited areas, it is not considered to be a significant health problem. It is periodically monitored to verify its condition. This event is clearly covered under the authority of the present contract as is all the thorium work. Therefore, this review did not cover any of the work related to thorium production, nor any of the ongoing research at the facility since 1947.

#### RADIOLOGICAL HISTORY AND STATUS

Surveys were conducted routinely during the MED era to improve the recovery rate of uranium and other valuable materials. This activity resulted in the recovery of 40 barrels of contaminated soil from the area south of Annex No. 1 and the removal of 250 tons of contaminated material from the Iowa State College dump. Additional removal of soil, noted to contain less than 0.1 percent uranium, was not considered to be justified.

The next survey of the area used for MED operations, mentioned in available records, was begun in May 1976 by personnel from Iowa State

University. Four soil samples were taken in the general vicinity of the former location of Annex No. 1 and none were taken in the vicinity of Annex No. 2. It would appear that those conducting the survey were unaware of the potential for contamination in the dump, the barn stall, the WPA Storage Shed, or the shed that was located one block northeast of Annex No. 1. The Department of Energy did not consider this survey to be adequate to characterize the site and is considering the need for additional radiological surveys of these areas. In the interim, the Department is investigating the location of the buildings not previously surveyed.

#### SITE DESCRIPTION

The site of the OSRD and MED uranium production work is located along Wallace Road on the campus. The Chemistry Building, used for research, is still in use and is named Gilman Hall. The site of Annex No. 1 is now partially covered by the Food Processing Lab, a wing on the northeast of the Dairy Industry Building on the west side of Wallace Road. The site of Annex No. 2 is partially covered by additions to the Central Stores Building on the east side of Wallace Road. Annex No. 1 is variously referred to as the Physical Chemistry Annex, Little Ankeny, Emergency Chemistry 1913, and later as the TX Casting Building. The former Women's Physical Education Building also underwent Government-sponsored improvements, but whether or not this building was a part of Annex No. 1 has not been determined. Annex No. 2 was referred to as the TX Preparation Building and, in recent years, as the former Credit Union Building and as the Shop Building. The locations of the Women's Physical Education Building, the original storage shed, the barn used for storage, and the WPA Storage Shed, which burned, have not yet been determined.

## AUTHORITY ANALYSIS

The determination of authority for remedial action at a candidate FUSRAP site is based upon an evaluation of the specific terms of the contract or contracts between MED/AEC and their contractors; confirmation that the residual radioactive contamination at the site did occur during the performance of work sponsored by the MED/AEC; and the working relationship between MED/AEC and their contractors. The latter considerations specifically address ownership of facilities and equipment, control of contractor operations, and MED/AEC involvement in matters pertaining to health and safety at the facilities.

The results of this review of available documentation and evaluation of factors cited above to determine DOE's authority for remedial action at the former MED/AEC portion of the former Iowa State College facilities are addressed in responses to the questions that follow:

- a. Question: Was the site/operation owned by a DOE predecessor or did a DOE predecessor have significant control over the operations on the site?

Response: The site was not owned by a DOE predecessor; however, the installation of government-owned equipment and the initial production and casting of uranium metal were performed under contract with DOE predecessors. DOE predecessors owned and supplied the uranium used at the facility and monitored accountability. MED had a representative on the site and directed the cleanup activities in 1943.

- b. Question: Was a DOE predecessor agency responsible for maintaining or ensuring the environmental integrity of the site (i.e., were they responsible for cleanup)?

Response: None of the contracts reviewed address the responsibility for environmental integrity other than the articles which state that the Government is responsible for restoration of the site to substantially the same condition as prior to the work, if requested by the contractor. MED representatives were aware of contamination on the site and required the removal of 40 barrels of contaminated material from

the south end of Annex No. 1 and 250 tons of contaminated soil from the Iowa State College dump in 1943, indicating that it was responsible for cleanup (at least as it affected accountability). Supplemental Agreement No. 6 to Contract No. W-7405-eng-7 indemnifies the Contractor, making the Government responsible for environmental liabilities. The current Contract W-7405-eng-82, Modification M069, allows for DOE-funded restoration of alterations resulting from current and past activities.

- c. Question: Is the waste, residue, or radioactive material on the site the result of DOE predecessor-related operations?

Response: Without a comprehensive radiological survey, it cannot be determined whether there is a significant amount of waste or residue above current FUSRAP guidelines on the portions of the site that are of concern. However, if any uranium residue or waste is found, it is likely to have originated from DOE predecessor-related operations.

- d. Question: Is the site in need of further cleanup and was the site left in a non-acceptable condition as a result of DOE predecessor-related activities?

Response: Of the four soil samples taken in the general vicinity of the former location of Annex No. 1, one indicated that the potential exists for contamination above current guidelines.

- e. Question: Did the present owner accept responsibility for the site with knowledge of its contaminated condition and that additional remedial measures would be needed to make the site acceptable for unrestricted use by the general public?

Response: Iowa State College accepted the buildings and improvements from the Government; however, records do not indicate whether or not the decision-makers knew at that time that the site was contaminated nor has sufficient information been gathered to date to determine if the site is contaminated above FUSRAP standards.

#### SUMMARY

It would appear that DOE has authority to conduct remedial action on any uranium residues remaining from OSRD/MED/AEC operations at the site. The responsibility to monitor, stabilize, or remove contamination resulting from the release of mesothorium to the sewer is covered by other ongoing DOE programs.

## REFERENCES

The following published references are available for information relative to the site:

- o Hewlett, Richard G., and O.E. Anderson, Jr., A History of the United States Atomic Energy Commission--Vol.1: The New World, 1939/1946, The Pennsylvania University Press, University Park, Pennsylvania, 1962.
- o Manhattan District History, Book VII: Feed Materials, Special Procurement, and Geographical Exploration, Vol. 1: Feed Materials and Special Procurement, 1947.
- o U.S. Department of Energy, A Background Report for the Formerly Utilized Manhattan Engineer District/Atomic Energy Commission Sites Program, DOE/EV-0097A, September 1980.

The following contracts were reviewed for the purpose of this authority review:

- o Contract No. OEMsr-433, effective February 15, 1942, and Supplements Nos. 1-3, dated through July 9, 1943, requiring studies and experimental investigations on normal tube alloy.
- o Memorandum of Agreement, October 10, 1942, subcontract to the University of Chicago under Contract No. OEMsr-410, dated December 20, 1941, requiring the development and production of tube alloy metal.
- o Contract No. W-7405-eng-82, March 24, 1943, and Supplemental Agreements Nos. 1-7, dated through August 26, 1947, requiring the Contractor to assist in the construction of a building (only Supplemental Agreements Nos. 6 and 7 available).
- o Contract No. W-7405-eng-7, November 9, 1942, and Supplemental Agreements Nos. 1-13, dated through January 5, 1946, requiring the Contractor to produce uranium metal and recast turnings

Unpublished correspondence related to the former Iowa State College site are:

- o Letter from Lt. Col. Thomas T. Crenshaw, MED, to Dr. F.H. Spedding, Iowa State College, January 28, 1943, stating that the college shall own the addition to Annex 1, provided for by Supplemental Agreement No. 4 of Contract No. W-7405-eng-7.
- o Letter from E.E. Chipman, Iowa State College, to Lt. Col. Thomas T. Crenshaw, MED, February 7, 1943, stating that uranium-containing waste lime and scrap graphite "are being discarded in an open pit on the college grounds" and that crucibles "are being accumulated in an unsightly scrap heap at the back entrance of the Physical Chemistry Annex."
- o Letter from E.E. Chipman, Iowa State College, to Lt. Col. T.T. Crenshaw, MED, April 7, 1943, stating that storage space is available "approximately one block from the plant."
- o Letter from F.H. Spedding, Iowa State College, to Lt. Col. T.T. Crenshaw, MED, April 25, 1943, mentioning storage of metal turnings "in an old shed and in an old stall in a barn remote from the present structure," requesting that a storage building be built next the Annex.
- o Letter from Frank Huke, Iowa State College, to Lt. Col. T.T. Crenshaw, MED, May 12, 1943, stating that a fire in the WPA storage shed, about 3 blocks northeast of the main building (Annex No. 1), in which 3500 pounds of metal burned, resulting in the loss of 200 to 300 pounds of metal oxide.
- o Letter from Major Canfield Hadlock, MED, to Dr. Frank H. Spedding, Iowa State College, October 14, 1943, indicating MED's desire to remove the contaminated waste lime from the college dump to Elza, Tennessee.
- o Letter from C.F. Gray, Iowa State College, to Major C. Hadlock, MED, October 29, 1943, stating that the south end of the Physical Chemistry Annex had been contaminated by packaging dross and burning out crucibles, with some soil samples indicating up to 25.9 percent uranium, requiring the removal of 140 cf of soil.
- o Letter from F.H. Spedding, Iowa State College, to Lt. Col. J.R. Ruhoff, MED, October 30, 1943, requesting an addition to Annex 1 to provide an enclosed area where crucibles were to be burned out.
- o Memorandum from Frank Huke, MED, to Major Canfield Hadlock, MED, November 11, 1943, describing uranium losses at the Physical Chemistry Annex on Project 1400.

- o "Report of Ames Laboratory Research and Development Program for October 1943," by F.H. Spedding, November 16, 1943, indicating that the Ames Laboratory was engaged in research on plutonium extraction and the characterization of fission product properties.
- o Letter from Irvin Stewart, OSRD, to Lt. Col. C. Vaden Bulck, MED, July 27, 1944, transferring the Contract OEM-sr-433 requirement to restore the premises to "substantially the same condition as prior to such work."
- o Memorandum from H.A. Savigny, MED, to Major Brinkman, MED, August 5, 1944, discussing MED's responsibility to restore "college facilities to their original condition as now provided in the subcontract formerly held by Iowa State College under OSRD Contract No. OEM-sr-410."
- o Letter from Major Philip S. Finn, Jr., MED, to Dr. F.H. Spedding, Iowa State College, October 16, 1944, indicating that the Government made improvements to the college-owned portion of Annex No. 1 and the Women's Physical Education Building and that Annex No. 2 was completely government-owned.
- o Memorandum from Capt. Donald G. Sturges, MED, to Mr. C. Clayton, MED, November 13, 1944, discussing potential for contamination remaining in the dump, the sewer, and the area around Annex No. 1.
- o Memorandum to the files by E.W. Moscrip, MED, November 14, 1944, with attached memorandum from Calvin W. Clayton, MED, to Capt. D.G. Sturges, MED, discussing uranium losses through wash waster discharge, sandblast exhaust to the atmosphere, low efficiency filters, and by workmen tracking turnings out of the building on the soles of their shoes.
- o Memorandum from Calvin W. Clayton, MED, to Mr. Moscrip, MED, December 30, 1944, stating that Bureau of Standards data on dump samples was more precise than the College's data; a survey map is attached.
- o Letter from R.C. Bowker, OSRD, to Dean Harold V. Gaskill, Iowa State College, February 3, 1945, transferring accountability for government-owned property under Contract No. OEMsr-433 to control of the War Department.
- o Letter from Lt. Edmund M. Velten, MED, to Dr. F.H. Spedding, Iowa State College, April 6, 1945, indicating that green salt was stored in Annex No. 2.
- o Memorandum from Calvin W. Clayton, MED, to Fred M. Belmore, MED, April 17, 1945, transmitting a radiological survey map of the south end of Annex No. 1.

- o Memorandum to the files by T/4 James J. Koenig, MED, July 6, 1945, describing uranium metal turnings preparation in Annex No. 2 and casting in Annex No. 1.
- o Memorandum to the files by T/4 James J. Koenig, MED, July 7, 1945, indicating that crucibles, once burned outside Annex No. 1 (TX Casting Building), are burned on a hearth inside the building, that floor sweepings are being burned in the open behind Annex No. 2 (TX Preparation Building), that the dump will not be excavated further, and that turnings carried out on the soles of workers' shoes can be captured by metal floor mats.
- o Memorandum to the files by E.W. Moscrip, MED, October 3, 1945, providing a brief history of uranium recovery operations at the Iowa State College dump and indicating that analysis shows that the samples contain less than 0.1 percent uranium, making further recovery efforts uneconomical.
- o Letter from F.H. Spedding, Iowa State College, to Major W.E. Kelley, MED, October 8, 1945, indicating that work was performed under the following contracts: OEMsr-433, OEMsr-410, W-7405-eng-82, and W-7405-eng-7.
- o Memorandum to the files by A.V. Peterson, MED, September 24, 1946, stating that work under Contract No. OEMsr-356 for OSRD was transferred to Contract No. W-7405-eng-90 for the War Department.
- o "History of Iowa State College, Contract W-7405-eng-7," (undated draft, possibly November 1944).
- o Letter from Milo D. Voss, Ames Laboratory, to Mr. Martin A. Langsam, ERDA, March 29, 1977, discussing the resurvey program and indicating that Contract No. W-7405-eng-82 may still be in force.
- o Memorandum from William E. Mott, DOE, to Billy D. Shipp, DOE, September 25, 1980, conveying comments on the attached draft survey report.

Modification No. M069  
Supplemental Agreement to  
Contract No. W-7405-Eng-82

SUPPLEMENTAL AGREEMENT BETWEEN  
THE UNITED STATES DEPARTMENT OF ENERGY  
AND  
THE IOWA STATE UNIVERSITY OF SCIENCE AND TECHNOLOGY  
FOR THE DIRECTION, OPERATION AND MANAGEMENT  
OF THE AMES LABORATORY

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Modification No. M069  
Supplemental Agreement to  
Contract No. W-7405-Eng-82

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Attachment II	Patent Rights (Small Business Firms or Nonprofit Organization - March 1982) - referenced in paragraph j., Subcontracts, of Article 61., Patent Rights	8 pages
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<u>Appendices</u>		
A	Employees' Special Benefit Plan	3 pages
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C	Government Property on Leased Land	2 pages
D	Use of Space in Contractor-Owned Buildings	2 pages
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Modification No. M069  
Supplemental Agreement to  
Contract No. W-7405-Eng-82

THIS SUPPLEMENTAL AGREEMENT is effective the first day of January, 1984, by and between the UNITED STATES OF AMERICA (hereinafter referred to as the "Government"), as represented by the UNITED STATES DEPARTMENT OF ENERGY (hereinafter referred to as the "DOE"), and IOWA STATE UNIVERSITY OF SCIENCE AND TECHNOLOGY, of Ames, Iowa, an educational institution, owned wholly by the State of Iowa, (hereinafter referred to as the or the "Contractor").

WITNESSETH THAT:

WHEREAS, the Contractor has been performing work under Contract No. W-7405-Eng-82 with the Department; and

WHEREAS, said contract has been modified previously, and the parties hereto desire to modify said contract further, as hereinafter provided; and

WHEREAS, this supplemental agreement is authorized by the Department of Energy Organization Act and other applicable law;

NOW, THEREFORE, the parties hereto agree that Contract No. W-7405-Eng-82, as amended, is revised in its entirety to read as follows with respect to the performance of contract work commencing on January 1, 1984, except as hereinafter otherwise provided:

Article 1. DEFINITIONS

As used throughout this contract, the following terms shall have the meanings set forth below:

- a. The term "head of the agency" or "Secretary" as used herein means the Secretary, the Deputy Secretary, the Under Secretary, any Assistant Secretary, or any other head or assistant head of the executive or military department or other Federal agency; and the term "his duly authorized representative" means any person or persons or board (other than the Contracting Officer) authorized to act for the head of the agency or the Secretary.
- b. The term "DOE" means the U. S. Department of Energy.
- c. The term "Contracting Officer" means the person executing this contract on behalf of the Government, and any other officer or civilian employee who is a properly designated Contracting Officer; and the term includes, except as otherwise provided in this contract, the authorized representative of a Contracting Officer acting within the limits of his authority.
- d. Except as otherwise provided in this contract, the term "subcontracts" includes purchase orders under this contract.

Article 2. TERM AND TERMINATION

- a. This contract shall continue until December 31, 1988 unless sooner terminated in accordance with the provisions which follow:
- (1) The performance of work under this contract may be terminated by the Government in whole, or from time to time in part, (i) whenever the Contractor shall default in performance, and shall fail to cure the fault or failure within such period as the Contracting Officer may allow after receipt from the Contracting Officer of a notice specifying the fault or failure or, (ii) whenever for any reason the Contracting Officer shall determine any such termination is for the best interest of the Government. Termination of the work hereunder shall be effected by delivery of a notice of termination specifying whether termination is for default of the Contractor or for convenience of the Government, the extent to which performance of work under the contract shall be terminated, and the date upon which such termination shall become effective. Any such termination shall be without prejudice to any claim which either party may have against the other. If, after notice of termination under the provisions of a.(1)(i) above, it is determined for any reason that the Contractor was not in default, such notice of default shall be deemed to have been issued pursuant to a.(1)(ii) above, and the rights and obligations of the parties hereto shall in any event be governed accordingly.
  - (2) Upon receipt of notice of termination, in accordance with (1) above, the Contractor shall, to the extent directed in writing by the Contracting Officer, discontinue the terminated work and the placing of orders for materials, facilities, supplies, and services in connection therewith, and shall proceed, if and to the extent required by the Contracting Officer, to cancel promptly, and settle with the approval of the Contracting Officer, existing orders, subcontracts, and commitments insofar as such orders, subcontracts, and commitments pertain to this contract.
- b. Upon the termination of this contract, full and complete settlement of all claims of the Contractor and of DOE arising out of this contract shall be made as follows:
- (1) The Government shall have the right in its discretion to assume sole responsibility for any or all obligations, commitments, and claims that the Contractor may have undertaken or incurred, the costs of which are allowable in accordance with the provisions of this contract; and the Contractor shall, as a condition of receiving the payments mentioned in this article, execute and deliver all such papers and take all such steps as the Contracting Officer may require for the purpose of fully vesting in the Government

any rights and benefits the Contractor may have under or in connection with such obligations, commitments, or claims.

- (2) The Government shall treat as allowable costs all expenditures made in accordance with and allowable under the articles entitled "Allowable Costs", not previously so allowed or otherwise credited for work performed prior to the effective date of termination, together with expenditures as may be incurred for a reasonable time thereafter with the approval of, or as directed by, the Contracting Officer.
  - (3) The Government shall treat as allowable costs, ~~to the extent not included in b.(2) above,~~ the costs of settling and paying claims arising out of the termination of work under orders, subcontracts, and commitments as provided in paragraph a.(2) above.
  - (4) The Government shall treat as allowable costs the reasonable costs of settlement, including accounting, legal, clerical, and other expenses reasonably necessary for the preparation of settlement claims and supporting data with respect to the termination of the contract and for the termination and settlement of orders and subcontracts thereunder, together with such further expenditures made by the Contractor after the date of termination for the protection or disposition of Government property as are approved or required by the Contracting Officer; provided, however, that if the termination is for default of the Contractor, there shall not be included any amount for preparation of the Contractor's settlement proposal.
  - (5) The obligation of the Government to make any of the payments required by this article or any other provisions of this contract shall be subject to any unsettled claims in connection with this contract which the Government may have against the Contractor.
- c. Prior to final settlement, the Contractor shall furnish a release as required in the article entitled "Payments and Advances" hereof and such accounting for Government-owned property as may be required by the Contracting Officer; provided, however, that unless the Contracting Officer requires an inventory, the maintenance and disposition of records of Government-owned property in accordance with the article entitled "Accounts, Records, and Inspection" hereof shall be accepted by the Contracting Officer as full compliance with all requirements of this contract pertaining to an accounting for such property.

Article 3. DESCRIPTION AND LOCATION OF AMES LABORATORY FACILITIES

- a. DOE agrees to continue to furnish and make available to the Contractor for its possession and use in performing the work under this contract the Ames Laboratory facilities designated as follows:

- (1) The Government-owned or -leased land, buildings, utilities, equipment, and other facilities situated at the Contractor's Ames, Iowa campus and its environs; and
  - (2) Government-owned or -leased facilities at such other locations as may be approved by DOE for use under this contract.
- b. The Contractor agrees to continue to furnish and make available, in accordance with Article 17., Property, and Appendix D, for its use in performing the work under this contract, certain Contractor-owned land, buildings, utilities, equipment, and other facilities situated at the Contractor's Ames, Iowa campus and its environs.

Article 4. STATEMENT OF THE WORK

The Contractor, using the Ames Laboratory facilities, shall perform the following work in accordance with the terms and conditions of this contract:

- a. Long-term basic and intermediate range applied research in support of energy generating, energy storing and other technologies of national interest or importance. Such work will be centered in the physical (especially materials and chemical), engineering, and environmental sciences and will involve the disciplinary areas of chemistry, physics, metallurgy, mathematics, engineering, computer science ceramics, and related fields; and
- b. Developmental research on purification techniques for and the actual production and characterization of research quantities (in a uniquely pure state) of such materials as: actinide metals, the rare earth metals and compounds, the alkaline earths, refractory metals, composite materials, single crystals, amorphous and thin films, ceramic powders, and others. These materials will be made available on a cost-recovery basis to: DOE, its installations and contractors and, as appropriate, to other federal laboratories, universities, and the private sector; and
- c. Cooperative research programs with colleges and universities involving the utilization of Laboratory equipment, facilities and personnel when such research is consistent with and complimentary to the Laboratory's DOE mission; and
- d. Training of scientific and engineering professionals by appointing graduate students, post-doctoral associates and visiting staff members to positions having direct involvement with the approved programmatic research and development activities of the Laboratory; and
- e. Research and development work involving the use of Laboratory equipment, facilities and personnel for other DOE contractors, other federal agencies,

universities, state and local governments, industrial entities, and the private sector. Such work will be consistent with the Laboratory's mission, will not interfere with the conduct of the Laboratory's approved DOE tasks, and will be executed according to pertinent DOE orders and directives as may be issued from time to time; and

- f. The conduct of activities which will promote the transfer of the practical results of the Laboratory's research program and the technologies developed within the Laboratory to the private sector as well as to state and local governments; and
- g. Activities designed to assist, stimulate, and encourage the dissemination of information relating to energy technologies consistent with security and patent requirements in order (i) to promote scientific progress, and (ii) to achieve a more widespread understanding of the opportunities and problems of energy development; and
- h. The furnishing of such appropriate technical and scientific assistance, including training and other services, materials and equipment, related to the energy programs and technologies, both within and outside the United States, to DOE, its installations, contractors, and interest organizations and individuals as may be approved from time to time by DOE; and
- i. Engineering services, and alteration and construction work as approved from time to time by DOE; and
- j. The provision of all physical maintenance and operations of Government-owned Ames Laboratory facilities in accordance with general programs and policies approved by DOE, or, in the absence of such programs or policies, in accordance with sound maintenance and operational practices to assure continuity and fulfillment of program requirements, and protection of life and property from normal hazards. Upon DOE's request, any maintenance practice of the Contractor applicable to Government-owned Ames Laboratory facilities shall be subject to review and approval by DOE; and
- k. Such other technical and nontechnical activities as are proposed by DOE and agreed to by the Contractor in support or related to the work performed by the Contractor under this article; and
- l. In accordance with the Privacy Act of 1974, 5 U.S.C. 552a (Public Law 93-579), and implementing DOE regulations (10 CFR, Part 1008), the Contractor shall maintain the following "Systems of Records" on individuals in order to accomplish DOE functions:
  - (1) "Personnel Radiation Exposure Information" (DOE 35) respecting Contractor employees, DOE employees and visitors to the contract site.
  - (2) "Government Driver's License File" (DOE 32) respecting Contractor employees authorized by DOE to operate Government vehicles.

The parenthetical DOE number designations for each system of records refers to the official "System of Record" number published by DOE in the Federal Register pursuant to the Privacy Act.

Article 5. GENERAL RESPONSIBILITIES OF THE PARTIES

- a. The Contractor recognizes and hereby acknowledges that DOE is responsible for the conduct of the Government's energy program and for assuring that Government funds are properly and effectively utilized, and that the proper discharge of the DOE's responsibilities requires that it shall have (i) full access to information concerning the performance of the contract work and (ii) the power to exercise general control over such work.
- b. The Contractor, through its Energy and Minerals Resources Research Institute (EMRRI), shall, in a manner consistent with the provisions of paragraph a., be responsible for the operation, administration, and management of the Ames Laboratory facilities and organization in order to efficiently and successfully perform the activities described in Article 4.
- c. Unless DOE otherwise notifies the Contractor in writing, its responsibilities under this contract shall be administered by the Manager, Chicago Operations Office, and his designated representatives. Unless the Contractor otherwise notifies DOE in writing, its responsibilities under this contract shall be administered by the Director, Ames Laboratory, and his designated representatives.

Article 6. CONTRACTOR'S ORGANIZATION

- a. Organization Chart. As promptly as possible after the execution of this contract, the Contractor shall furnish to the Contracting Officer a chart showing the names, duties, and organization key personnel to be employed in connection with the work, and shall furnish from time to time supplementary information reflecting changes therein.
- b. Supervising Representative of Contractor. Unless otherwise directed by the Contracting Officer, a competent full-time resident supervising representative of the Contractor satisfactory to the Contracting Officer shall be in charge of the work at the site at all times. This also applies to off-site work.
- c. Control of Employees. The Contractor shall be responsible for maintaining satisfactory standards of employee competency, conduct, and integrity and shall be responsible for taking such disciplinary action with respect to its employees as may be necessary. The Contractor shall establish such standards and procedures as are necessary to implement effectively the provisions set forth in §9-50.12, and such standards and procedures shall be subject to the approval of the Contracting Officer.

Article 7. CONSULTANT OR OTHER COMPARABLE EMPLOYMENT SERVICES OF CONTRACTOR  
EMPLOYEES

The Contractor shall require all employees who are employed full-time (an individual who performs work under the cost-type contract on a full-time annual basis) or part-time (50 percent or more of regular annual compensation received under terms of a contract with DOE) on the contract work to disclose to the Contractor all consultant or other comparable employment services which the employees propose to undertake for others. The Contractor shall transmit to the Contracting Officer all information obtained from such disclosures. The Contractor will require any employee who will be employed full-time on the contract work to agree, as a condition of his participation in such work, that he will not perform consultant or other comparable employment services for another DOE Contractor in the same or related energy field for another organization except with the prior approval of the Contractor. If the Contractor believes, with respect to any employee who is employed full-time on the contract work, that any proposed consultant or other comparable employment service for an organization in the atomic energy field other than a DOE cost-type contractor may involve: (1) A rate of remuneration significantly in excess of the employee's regular rate of remuneration; (2) a significant question concerning possible conflict with DOE's policies regarding conduct of employees of DOE's contractors; (3) the Contractor's responsibility to report fully and promptly to DOE all significant research and development information; or (4) the patent provisions of the Contractor's contract with DOE, the Contractor shall obtain the prior approval of the Contracting Officer for such consultant or other comparable employment service.

Article 8. EMPLOYEES' SPECIAL BENEFIT PLAN

The Contractor and DOE shall continue the Employees' Special Benefit Plan in accordance with the terms and conditions set forth in Appendix A.

Article 9. KEY PERSONNEL

It having been determined that the employees whose names appear below, or persons approved by the Contracting Officer as persons of substantially equal abilities and qualifications are necessary for the successful performance of this contract, the Contractor agrees to assign such employees or persons to the performance of the work under this contract and shall not reassign or removed any of them without the consent of the Contracting Officer. Whenever, for any reason, one or more of the aforementioned employees is unavailable for assignment for work under the contract, the Contractor shall, with the approval of the Contracting Officer, replace such employee with an employee of substantially equal abilities and qualifications.

The key personnel referred to above are:

Dr. Robert S. Hansen - Laboratory Director  
Dr. Velmer Fassel - Deputy Laboratory Director  
Eugene Catus - Associate Director for Administration

Article 10. PROGRAM DEVELOPMENT AND BUDGETARY ADMINISTRATION

- a. Basic Considerations. The annual work program and budget are principal devices used by DOE in program development, integration, and cost estimating.
- (1) To make the work program and budget most effective in assuring comprehensive coverage of the research and development potentials of the energy field, it is the responsibility of DOE to keep the operators of DOE's laboratories advised of its overall program, its scientific and technological problems, and its current long-range objectives. In the light of such information, it is the responsibility of the Contractor to propose possible new objectives in the area of the Contractor's competence which in its judgment will either strengthen the overall DOE program, or provide additional support in areas which in the Contractor's judgment are being inadequately exploited, or to open new areas of investigation which appear of potential importance.
  - (2) DOE will formulate a coordinated program which it can support with funds appropriated by the Congress.
  - (3) It is the responsibility of the Contractor to prepare and submit to DOE a work program and budget in accordance with the actions taken by DOE. Upon DOE approval, it is the Contractor's further responsibility to conduct its operations as closely as possible within the limits established by such approvals unless and until they are modified.
  - (4) Throughout the process of program and budget development and approval, both DOE and the Contractor recognize the desirability for close consultation, for advising each other of plans or developments on which subsequent action will be required, and for attempting to reach mutual understanding in advance of the time that action needs to be taken.
- b. Annual Programs and Financing. It is the intent of the Contractor and DOE to utilize the program budget procedures on a Government-fiscal-year basis for the establishment of the Laboratory program budget. Procedures for the presentation of work programs and budget estimates shall be jointly developed. In order to meet the requirements of budgetary practice, the parties agree that:
- (1) As early as possible each year, DOE will supply the Contractor with the dollar amounts for the Laboratory contained in the President's Budget, with Program Assumptions which the Contractor will be expected to consider in its development of its program and budget, and with all changes to existing budget and accounting policies and procedures to be used in the current budget preparation.

- (2) Prior to May 1 (or such other date as may be agreed upon), the Contractor shall submit a comprehensive work program for the next two succeeding fiscal years together with a description of the current work program.
  - (3) Prior to May 1 (or such other date as may be agreed upon), the Contractor shall submit a budget estimate for the next two succeeding fiscal years together with a revised budget estimate for the current fiscal year.
  - (4) As soon as possible after October 1 of each year, DOE will issue a financial plan to the Contractor for the current fiscal year.
  - (5) DOE approval of the work program and budget estimates will be reflected in written program guidance and financial plans. The financial plans specify the funds available for work under the contract for the fiscal year and in addition establish limitations as set forth in paragraph d. of Article 11.
  - (6) A supplement to the contract will be executed by the parties on or before December 31 of each year (or such other date as may be agreed upon) to provide additional funds, and further contract supplements may be entered into from time to time to provide appropriate modifications in the total amount of funds made available under the contract.
  - (7) During the course of the work, DOE will review the work program and its costs based upon information submitted by the Contractor and may revise the written program guidance and/or financial plans established by DOE under subparagraph (5) above.
- c. Long-Term Programs. DOE will formulate long-term programs covering certain portions of the work to be performed under Article 4. of this contract.
- d. Budgetary Administration. The Contractor shall develop written procedures and execute such procedures for the administration of budgets for the Laboratory on an accrued-cost basis in conformance with the general policies and practices of the Department on budgeting and accounting.

Article 11. OBLIGATION OF FUNDS

- a. Obligation of Funds. The amount presently obligated by the Government with respect to this contract is \$300,129,171.25. Such amount may be increased unilaterally by DOE by written notice to the Contractor and may be increased or decreased by written agreement of the parties (whether or not by formal modification of this contract). Estimated revenues and receipts from others for work and services to be performed under this contract are not included in the amount obligated with respect to this contract. Such revenues and receipts to the extent actually received by the Contractor shall be available and used for the payment of allowable

costs as provided in the article entitled "Payments and Advances". Nothing in this paragraph a. is to be construed as authorizing the Contractor to exceed limitations stated in financial plans established by DOE and furnished to the Contractor from time to time under this contract.

- b. Limitation on Payment by the Government. Except as otherwise provided in this contract and except for costs which may be incurred by the Contractor pursuant to the article entitled "Term and Termination", or costs of claims allowable under the contract accruing after completion or termination and not released by the Contractor at the time of financial settlement of the contract in accordance with the article entitled "Payments and Advances", payment by the Government under this contract on account of allowable costs shall not in the aggregate exceed the amount obligated with respect to this contract. Unless expressly negated in this contract, payment on account of those costs excepted in the preceding sentence, which are in excess of the amount obligated with respect to this contract, shall be subject to the availability of (i) revenues and receipts deposited to the Government's account as provided in the article entitled "Payments and Advances", and (ii) other funds which DOE may legally use for such purpose; provided, DOE will use its best efforts to obtain the appropriation of funds for this purpose if not otherwise available.
- c. Notices--Contractor Excused from Further Performance. The Contractor shall notify DOE in writing whenever the unexpended balance of funds (including revenues and receipts) available under paragraph a. above, plus the Contractor's best estimate of revenues and receipts to be received during the forty-five-day period hereinafter specified, is in the Contractor's best judgment insufficient to continue contract operations at the programmed rate for only forty-five days and to cover the Contractor's outstanding commitments and liabilities on account of costs allowable under the contract at the end of such period. Whenever the unexpended balance of funds (including revenues and receipts) available under paragraph a. above is in the Contractor's best judgment either sufficient only to liquidate outstanding commitments and liabilities on account of costs allowable under this contract or is equal to zero, the Contractor shall immediately notify DOE and shall make no further commitments or expenditures (except to liquidate existing commitments and liabilities), and, unless the parties otherwise agree, the Contractor shall be excused from further performance (except such performance as may become necessary in connection with termination by the Government) and the performance of all work hereunder will be deemed to have been terminated for the convenience of the Government in accordance with the provisions of the article entitled "Term and Termination".

- d. In addition to the limitations provided for elsewhere in this contract, DOE may, through instructions (such as financial plans or other directives) issued to the Contractor, establish limitations on the costs to be incurred, commitments to be entered into or expenditures to be made during any Government fiscal year in the performance of the contract work. Such instructions may be amended or supplemented from time to time by DOE. The Contractor hereby agrees to comply with the specific limitations (ceilings) on costs, commitments and expenditures set forth in such instructions and to promptly notify DOE in writing whenever it has reason to believe the authorized financial levels of either costs, commitments or expenditures will be exceeded or substantially underrun. This provisions shall not preclude the Contractor from being compensated for work performed, commitments entered into or expenditures made in good faith, in accordance with previous instructions and prior to its receipt of subsequent instructions effecting a downward revision.
- e. Government's Right to Terminate Not Affected. The giving of any notice under this article shall not be construed to waive or impair any right of the Government to terminate the contract under the provisions of the article entitled "Term and Termination".

Article 12. ALLOWABLE COSTS

- a. Compensation for Contractor Services. Payment for the allowable cost, as hereinafter defined, shall constitute full and complete compensation for the performance of the work under this contract.
- b. Allowable Cost. The allowable cost of performing the work under this contract shall be the costs and expenses that are actually incurred by the Contractor in the performance of the contract work in accordance with its terms, that are necessary or incident thereto, and are determined to be allowable pursuant to this paragraph b. The determination of the allowability of cost hereunder shall be based on: (1) Reasonableness, including the exercise of prudent business judgment; (2) consistent application of generally accepted accounting principles and practices that result in equitable charges to the contract work; and (3) recognition of all exclusions and limitations set forth in this clause or elsewhere in this contract as to types or amounts of items of cost. Allowable cost shall not include cost of any item described as unallowable in paragraph d. of this clause except as indicated therein. Failure to mention an item of cost specifically in paragraph c. or paragraph d. shall not imply either that it is allowable or that it is unallowable.
- c. Examples of Items of Allowable Cost. Subject to the other provisions of this clause, the following examples of items of cost of work done under

this contract shall be allowable to the extent indicated:

- (1) Bonds and insurance, including self-insurance, as provided in the clause entitled "Required bonds and insurance - exclusive of Government property".
- (2) Communication costs, including telephone services, local and long-distance calls, telegrams, cablegrams, radiograms, postage, and similar items.
- (3) Consulting services (including legal and accounting), and related expenses, as approved by the Contracting Officer, except as made unallowable by paragraph d.(16) and d.(26).
- ~~(4) Litigation expenses, including reasonable Counsel fees, incurred in accordance with the clause of this contract entitled "Litigation and Claims".~~
- ~~(5) Losses and expenses (including settlements made with the consent of the Contracting Officer) sustained by the Contractor in the performance of this contract and certified in writing by the Contracting Officer to be just and reasonable, except the losses and expenses expressly made unallowable under other provisions of this contract.~~
- (6) Materials, supplies, and equipment, including freight transportation, material handling, inspection, storage, salvage, and other usual expenses incident to the procurement, use and disposition thereof, subject to approvals required under other provisions of this contract.
- (7) Patents, purchased design, and royalty payments to the extent expressly provided for under other provisions in this contract or as approved by the Contracting Officer, and preparation of invention disclosures, reports and related documents, and searching the art to the extent necessary to make such invention disclosures in accordance with the Patent Rights clause of this contract.
- (8) Personnel costs and related expenses incurred in accordance with established policies, programs, and schedules, and any changes thereto during the contract term, applicable to the Contractor's private operations and consistently followed throughout its organization, as approved by the Contracting Officer, such as:
  - (i) Salaries and wages; bonuses and incentive compensation; overtime, shift differential, holiday, and other premium pay for time worked; nonwork time, including vacations, holidays, sick, funeral, military, jury, witness, and voting leave; salaries

and wages to employees in their capacity as union stewards and committeemen for time spent in handling grievances, or serving on labor management (Contractor) committees, provided however, that the Contracting Officer's approval is required in each instance of total compensation to an individual employee at an annual rate of \$50,000.00 or more, when it is proposed that a total of 50 percent or more of such compensation be reimbursed under DOE cost-type contracts. Total compensation, as used here, includes only the employee's base salary, bonus, and incentive compensation payments;

- (ii) Legally required contributions to old-age and survivors' insurance, unemployment compensation plans, and workmen's compensation plans, (whether or not covered by insurance); voluntary or agreed-upon plans providing benefits for retirement, separation, life insurance, hospitalization, medical-surgical and unemployment (whether or not such plans are covered by insurance);
- (iii) Travel (except foreign travel, which requires specific approval by the Contracting Officer on a case-by-case basis); incidental subsistence and other allowances of Contractor employees, in connection with performance of work under this contract (including new employees reporting for work and transfer of employees, the transfer of their household goods and effects and the travel and subsistence of their dependents);
- (iv) Employee relations, welfare, morale, etc., programs including incentive or suggestion awards; employee counseling services, health or first-aid clinics; and house or employee publications;
- (v) Personnel training (except special education and training courses and research assignments calling for attendance at educational institutions which require specific approval by the Contracting Officer on a case-by-case basis); including apprenticeship training programs designed to improve efficiency and productivity of contract operations, to develop needed skills, and to develop scientific and technical personnel in specialized fields required in the contract work;
- (vi) Recruitment of personnel (including help-wanted advertisement), including services of employment agencies at rates not in excess of standard commercial rates, employment office, travel of prospective employees at the request of the Contractor for employment interviews;

- (vii) Net cost of operating plant-site cafeteria, dining rooms, and canteens attributable to the performance of the contract; and
  - (viii) All amounts paid by the Contractor under the provisions of Appendix A to this contract.
- (9) Repairs, maintenance, inspection, replacement, and disposal of Government-owned property and the restoration or clean-up of site and facilities to the extent directed or approved by the Contracting Officer.
  - (10) Subcontracts and purchase orders, including procurements from Contractor-controlled sources, subject to approvals required by other provisions of this contract.
  - (11) Subscriptions to trade, business, technical, and professional periodicals, as approved by the Contracting Officer.
  - (12) Taxes, fees, and charges levied by public agencies which the Contractor is required by law to pay, except those which are expressly made unallowable under other provisions of this contract.
  - (13) Utility services, including electricity, gas, water, steam, and sewerage.
  - (14) Indemnification of the Pension Benefit Guaranty Corporation, pursuant to the Employee Retirement Income Security Act of 1974, in accordance with §9-15.205-6.
  - (15) Establishment and maintenance of bank accounts in connection with the work hereunder, including, but not limited to, service charges, the cost of disbursing cash, necessary guards, cashiers, and paymasters, if payments are made by check, facilities and arrangements for cashing checks may be provided without expense to the employees, subject to the approval of the Contracting Officer.
  - (16) Charges for use and occupancy of space in Contractor-owned buildings used in connection with the work under this contract in accordance with subparagraph a.(2) of Article 17 and Appendix D.
- d. Examples of Items of Unallowable Costs. The following examples of items of costs are unallowable under this contract to the extent indicated:
- (1) Advertising, except (i) help-wanted advertising, and (ii) other advertising (such as costs of participation in exhibits) approved by the Contracting Officer as clearly in furtherance of work performed under the contract.

- (2) Bad debts (including expenses of collection) and provisions for bad debts arising out of other business of the Contractor.
- (3) Bidding expenses and costs of proposals.
- (4) Bonuses and similar compensation under any other name, which (i) are not pursuant to an agreement between the Contractor and employee prior to the rendering of the services or an established plan consistently followed by the Contractor, (ii) are in excess of those costs which are allowable by the Internal Revenue Code and regulations thereunder, or (iii) provide total compensation to an employee in excess of reasonable compensation for the services rendered.
- (5) Central and branch office expenses of the Contractor, except as specifically set forth in the contract.
- (6) Commissions, bonuses, and fees (under whatever name) in connection with obtaining or negotiating for a Government contract or a modification thereto, except when paid to bona fide employees or bona fide established selling organizations maintained by the Contractor for the purpose of obtaining Government business.
- (7) Contingency reserves, provisions for.
- (8) Contributions and donations.
- (9) Depreciation in excess of that calculated by application of methods approved for use by the Internal Revenue Service under the Internal Revenue Code of 1954, as amended, including the straight-line, declining balance (using a rate not exceeding twice the rate which would have been used had the depreciation been computed under the straight-line method), or sum-of-the-years digits method, on the basis of expected useful life, to the cost of acquisition of the related fixed assets less estimated salvage or residual value at the end of the expected useful life.
- (10) Dividend provisions or payments and, in the case of sole proprietors and partners, distributions of profit.
- (11) Entertainment costs, except the costs of such recreational activities for on-site employees as may be approved by the Contracting Officer or provided for elsewhere in this contract.
- (12) Fines and penalties, including assessed interest, resulting from violations of, or failure of, the Contractor to comply with Federal,

State, or local laws or regulations, except when incurred in accordance with the written approval of the Contracting Officer or as a result of compliance with the provisions of this contract.

- (13) Government-furnished property, except to the extent that cash payment therefor is required pursuant to procedures of DOE applicable to transfers of such property to the Contractor from others.
- (14) Insurance (including any provision of a self-insurance reserve) on any person where the Contractor under the insurance policy is the beneficiary, directly or indirectly, and insurance against loss of or damage to Government property as defined in Article 17.
- (15) Interest, however represented (except interest incurred in compliance with the clause entitled "State and local taxes"), bond discounts and expenses, and cost of financing and refinancing operations.
- (16) Legal, accounting, and consulting services and related costs incurred in connection with the preparation of prospectuses, preparation and issuance of stock, rights, organization or reorganization, prosecution or defense of antitrust suits, prosecution of claims against the United States, contesting actions or proposed action of the United States, and prosecution or defense of patent infringement litigation.
- (17) Losses (including litigation expenses, Counsel fees, and settlements) on, or arising from the sale, exchange, or abandonment of capital assets, including investments; losses on other contracts, including the Contractor's contributed portion under cost-sharing contracts; losses in connection with price reductions to and discount purchases by employees and others from any source; and losses where such losses or expenses:
  - (i) Are compensated for by insurance or otherwise or which would have been compensated by insurance required by law or by written direction of the Contracting Officer but which the Contractor failed to procure or maintain through its own fault or negligence.
  - (ii) Result from willful misconduct or lack of good faith on the part of any of the Contractor's directors, corporate officers, or a supervising representative of the Contractor, as defined elsewhere in this contract.
  - (iii) Represent liabilities to third persons for which the Contractor has expressly accepted responsibility under other terms of this contract.

- (18) Maintenance, depreciation, and other costs incidental to the Contractor's idle or excess facilities (including machinery and equipment), other than reasonable standby facilities.
- (19) Membership in trade, business, and professional organization, except as approved by the Contracting Officer.
- (20) Precontract costs, except as expressly made allowable under other provisions in this contract.
- (21) Research and development costs, unless specifically provided for elsewhere in this contract.
- (22) Selling costs, except to the extent they are determined to be reasonable and to be allocable to the contract. Allocability of selling costs to the contract will be determined in the light of reasonable benefit to the agency program arising from such activities as technical, consulting, demonstration, and other services performed for such purposes as applying or adapting the Contractor's product for agency use.
- (23) Storage of records pertaining to this contract after completion of operations under this contract, irrespective of contractual or statutory requirement of the preservation of records.
- (24) Taxes, fees, and charges in connection with financing, refinancing, or refunding operations, including the listing of securities on exchanges, taxes which are paid contrary to the clause entitled "State and local taxes"; federal taxes on net income and excess profits, special assessments on land which represent capital improvement and taxes on accumulated funding deficiencies of, or prohibited transactions involving, employee deferred compensation plans pursuant to Section 4971 or Section 4975 of the Internal Revenue Code of 1954, as amended, respectively.
- (25) Travel expenses of the officers, proprietors, executives, administration heads and other employees of the Contractor's central office or branch office organizations concerned with the general management, supervision, and conduct of the Contractor's business as a whole, except to the extent that particular travel is in connection with the contract and approved by the Contracting Officer.
- (26) Salary or other compensation (and expenses related thereto) of any individual employed under this contract as a consultant or in another comparable employment capacity who is an employee of another

organization and concurrently performing work on a full-time annual basis for that organization under a cost-type contract with DOE, except to the extent that cash payment therefor is required pursuant to the provisions of this contract or procedure of DOE applicable to the borrowing of such an individual from another cost-type contractor.

- (27) First-class air travel in excess of the cost of less than first-class air accommodations, except when less than first-class accommodations are not reasonably available to meet necessary mission requirements, such as where less than first-class accommodations would:
- (i) Require circuitous routing;
  - (ii) Require travel during unreasonable hours;
  - (iii) Greatly increase the duration of the flight;
  - (iv) Result in additional costs which would offset the transportation savings; or
  - (v) Offer accommodations which are not reasonably adequate for the medical needs of the traveler.
- (28) Special construction industry "funds" financed by employer contributions for such purposes as methods and materials research, public and industry relations, market development, and disaster relief, except as specifically provided elsewhere in this contract.
- (29) Late premium payment charges related to employee deferred compensation plan insurance, in accordance with §9-15:205-16.
- (30) Facilities capital cost of money. (CAS-414)

Article 13. NEGOTIATED OVERHEAD RATES - PREDETERMINED

- a. Notwithstanding the provisions of the article of this contract entitled "Allowable Cost", the allowable indirect costs under this contract shall be obtained by applying predetermined overhead rates to bases agreed upon by the parties, as specified below.
- b. Allowability of costs and acceptability of cost allocation methods shall be determined in accordance with Subpart 1-15.3 of the Federal Procurement Regulations (41 CFR 1-15.3).

- c. The parties agree that indirect costs for the period January 1, 1984 through September 30, 1984 shall be based on a predetermined rate of three and four tenths percent (3.4%), applicable to total allowable direct costs, excluding plant and capital equipment costs, for said period.
- d. With respect to periods of contract performance subsequent to the period(s) for which the parties have agreed to predetermined overhead rates, predetermined overhead rates shall be established in accordance with subparagraphs (1) - (4) hereof and shall be subject to paragraph b. above:
- (1) The Contractor, as soon as possible but not later than February 1, 1984 and each anniversary date thereafter, shall submit to the Contracting Officer, with a copy to the cognizant audit activity, a proposed predetermined overhead rate or rates for use during the pertinent ensuing Government fiscal year or portion thereof, based on the Contractor's actual cost experience during the Contractor's immediately preceding fiscal year, together with supporting cost data. Negotiation of predetermined overhead rates by the Contractor and the Contracting Officer shall be undertaken as promptly as practicable after receipt of the Contractor's proposal.
  - (2) The results of each negotiation shall be set forth in a modification to this contract, which shall specify (1) the agreed predetermined overhead rates, (2) the bases to which rates apply, (3) the fiscal year unless the parties agree to a different period for which the rates apply, and (4) the specific items treated as direct costs or any changes in the items previously agreed to be direct costs.
  - (3) Pending establishment of predetermined overhead rates for any period of contract performance subsequent to the period(s) for which the parties have agreed to predetermined overhead rates, the Contractor shall be reimbursed, subject to appropriate adjustment when the predetermined rate(s) for that period is (are) established, at the predetermined rate(s) agreed to for the previous period, or, at the discretion of the Contracting Officer, at other billing rates acceptable to the Contracting Officer.
  - (4) Any failure by the parties to agree on any predetermined overhead rate or rates under this article shall not be considered a dispute concerning a question of fact for decision by the Contracting Officer within the meaning of the "Disputes" article of this contract. If for any fiscal year or other period of contract performance the parties fail to agree to a predetermined overhead rate or rates, it is agreed that the allowable indirect costs under this contract shall be obtained by applying negotiated final overhead rates in accordance with the terms of the "Negotiated Overhead Rates -- Postdetermined" clause set forth in section 1-3.704-2(a) of the Federal

Procurement Regulations (41 CFR 1-3.704-2(a)), as in effect on the date of commencement of the pertinent contract period.

Article 14. PAYMENTS AND ADVANCES

- a. Payments on Account of Allowable Costs. The Contracting Officer and the Contractor shall agree as to the extent to which payment of allowable costs or payments for other items specifically approved in writing by the Contracting Officer shall be made from advances of Government funds. When pension contributions are paid by the Contractor to the retirement fund less frequently than quarterly, accrued costs therefor shall be excluded from costs for payment purposes until such costs are paid. If pension contributions are paid on a quarterly or more frequent basis, accruals therefor may be included in costs for payment purposes, provided that they are paid to the fund within 30 days after the close of the period covered. If payments are not made to the fund within such 30-day period, pension contribution costs shall be excluded from cost for payment purposes until payment has been made.
- b. Special Bank Account--Use. All advances of Government funds shall be withdrawn pursuant to a letter of credit in favor of the Contractor, or, at the option of the Government, shall be made by check payable to the Contractor, and shall be deposited only in the Special Bank Account referred to in Appendix B, Special Bank Account Agreement. The Contractor shall likewise deposit in the Special Bank Account any other revenues received by the Contractor in connection with the work under this contract. No part of the funds in the Special Bank Account shall be (i) commingled with any funds of the Contractor, or (ii) used for a purpose other than that of making payments for costs allowable under this contract or payments for other items specifically approved in writing by the Contracting Officer. If the Contracting Officer shall at any time determine that the balance on such bank account exceeds the Contractor's current needs, the Contractor shall promptly make such disposition of the excess as the Contracting Officer may direct.
- c. Title to Funds Advanced. Title to the unexpended balance of any funds advanced and of any bank account established pursuant to this article shall remain in the Government and be superior to any claim or lien of the bank of deposit or others. It is understood that an advance to the Contractor hereunder is not a loan to the Contractor and will not require the payment of interest by the Contractor, and that the Contractor acquires no right, title, or interest in or to such advance other than the right to make expenditures therefrom as provided in this article.
- d. Review and Approval of Costs Incurred. The Contractor shall prepare and submit annually, as of September 30, a voucher for the total of net expenditures accrued (i.e., net costs incurred) for the period covered by the voucher, and DOE, after audit and appropriate adjustment, will approve such voucher. This approval by DOE will constitute an acknow-

ledgment by DOE that the net costs incurred are allowable under the contract and that they have been recorded in the accounts maintained by the Contractor in accordance with DOE's accounting policies, but said approval will not relieve the Contractor of responsibility for DOE's assets in its care, for appropriate subsequent adjustments, or for errors later becoming known to DOE.

e. Financial Settlement. The Government shall promptly pay to the Contractor the unpaid balance of allowable costs upon termination of the work, expiration of the term of the contract, or completion of the work and its acceptance by the Government after (i) compliance by the Contractor with DOE's patent clearance requirements, and (ii) the furnishing by the Contractor of:

- (1) An assignment of the Contractor's rights to any refunds, rebates, allowances, accounts receivable, or other credits applicable to allowable costs under the contract;
- (2) A closing financial statement;
- (3) The accounting for Government-owned property required by the article entitled "Property"; and
- (4) A release discharging the Government, its officers, agents, and employees from all liabilities, obligations, and claims arising out of or under this contract, subject only to the following exceptions:
  - (a) Specified claims in stated amounts or in estimated amounts where the amounts are not susceptible of exact statement by the Contractor;
  - (b) Claims, together with reasonable expenses incidental thereto, based upon liabilities of the Contractor to third parties arising out of the performance of this contract; provided that such claims are not known to the Contractor on the date of the execution of the release; and provided further that the Contractor gives notice of such claims in writing to the Contracting Officer not more than six (6) years after the date of the release or the date of any notice to the Contractor that the Government is prepared to make final payment, whichever is earlier; and
  - (c) Claims for reimbursement of costs (other than expenses of the Contractor by reason of any indemnification of the Government against patent liability), including reasonable expenses incidental thereto, incurred by the Contractor under the provisions of this contract relating to patents.

In arriving at the amount due the Contractor under this section, there shall be deducted (i) any claim which the Government may have against the Contractor in connection with this contract, and (ii) deductions due under the terms of this contract and not otherwise recovered by or credited to the Government. The unliquidated balance of the Special Bank Account may be applied to the amount due, and any balance shall be returned to the Government forthwith.

- f. Claims. Claims for credit against funds advanced or for payment shall be accompanied by such supporting documents and justification as the Contracting Officer shall prescribe.
- g. Discounts. The Contractor shall take and afford the Government the advantage of all known and available cash and trade discounts, rebates, allowances, credits, salvage, and commissions unless the Contracting Officer finds that such action is not in the best interest of the Government.
- h. Revenues. All revenues accruing to the Contractor in connection with the work under this contract shall be Government property and shall be deposited in the Special Bank Account to be available for payment of allowable costs under this contract.
- i. Direct Payment of Charges -- Deductions. The Government reserves the right, upon ten days' written notice from the Contracting Officer to the Contractor, to pay directly to the persons concerned all amounts due which otherwise would be allowable under this contract. Any payment so made shall discharge the Government of all liability to the Contractor therefor.

Article 15. ACCOUNTS, RECORDS, AND INSPECTION

- a. Accounts. The Contractor shall maintain a separate and distinct set of accounts, records, documents and other evidence showing and supporting all allowable costs incurred, revenues or other applicable credits, and the receipt, use, and disposition of all Government property coming into the possession of the Contractor under this contract. The system of accounts employed by the Contractor shall be satisfactory to DOE and in accordance with generally accepted accounting principles consistently applied.
- b. Inspection and Audit of Accounts and Records. All books of account and records relating to this contract shall be subject to inspection and audit by DOE at all reasonable times, before and during the period of retention provided for in paragraph d. below, and the Contractor shall afford DOE proper facilities for such inspection and audit.

- c. Audit of Subcontractor's Records. The Contractor also agrees, with respect to any subcontracts (including lump-sum or unit-price subcontracts or purchase orders) where, under the terms of the subcontract, costs incurred are a factor in determining the amount payable to the subcontractor of any tier, to either conduct an audit of the subcontractor's cost or arrange for such an audit to be performed by the cognizant Government audit agency through the Contracting Officer.
- d. Disposition of Records. Except as agreed upon by the Government and the Contractor, all financial and cost reports, books of account and supporting documents, and other data evidencing costs allowable and revenues and other applicable credits under this contract, shall be the property of the Government, and shall be delivered to the Government or otherwise disposed of by the Contractor either as the Contracting Officer may from time to time direct during the progress of the work, or in any event as the Contracting Officer shall direct upon completion or termination of this contract and final audit of all accounts hereunder. All other records in the possession of the Contractor relating to this contract shall be preserved by the Contractor for a period of three (3) years after settlement of the contract or otherwise disposed of in such manner as may be agreed upon by the Government and the Contractor.
- e. Reports. The Contractor shall furnish such progress reports and schedules, financial and cost reports, and other reports concerning the work under this contract as the Contracting Officer may from time to time require.
- f. Inspections. DOE shall have the right to inspect the work and activities of the Contractor under this contract at such time and in such manner as it shall deem appropriate.
- g. Subcontracts. The Contractor further agrees to require the inclusion of provisions similar to those in paragraphs a. through g. of this article in all subcontracts (including lump-sum or unit-price subcontracts or purchase orders) of any tier entered into hereunder where, under the terms of the subcontract, costs incurred are a factor in determining the amount payable to the subcontractor.
- h. Internal Audit. The Contractor agrees to conduct an internal audit and examination satisfactory to DOE of the records, operations, expenses, and the transactions with respect to costs claimed to be allowable under this contract annually and at such other times as may be mutually agreed upon. The results of such audit, including the working papers, shall be submitted or made available to the Contracting Officer.

Article 16. EXAMINATION OF RECORDS

- a. This article is applicable if the amount of this contract exceeds \$10,000 and was entered into by means of negotiation, including small business restricted

advertising, but is not applicable if this contract was entered into by means of formal advertising.

- b. The Contractor agrees that the Comptroller General of the United States or any of his duly authorized representatives shall, until the expiration of three years after final payment under this contract or such lesser time specified in either Appendix M of the Defense Acquisition Regulation or the Federal Procurement Regulations, Part 1-20, as appropriate, have access to and the right to examine any directly pertinent books, documents, papers, and records of the Contractor involving transactions related to this contract.
- c. The Contractor further agrees to include in all his subcontracts hereunder a provision to the effect that the subcontractor agrees that the Comptroller General of the United States or any of his duly authorized representatives shall, until the expiration of three years after final payment under the subcontract, or such lesser time specified in either Appendix M of the Defense Acquisition Regulation or the Federal Procurement Regulations, Part 1-20, as appropriate, have access to and the right to examine any directly pertinent books, documents, papers, and records of such subcontractor, involving transactions related to the subcontract. The term "subcontract" as used in this article excludes (1) purchase orders not exceeding \$10,000.00 and (2) subcontracts or purchase orders for public utility services at rates established for uniform applicability to the general public.
- d. The periods of access and examination described in (b) and (c) above, for records which relate to (1) appeals under the "Disputes" article of this contract, (2) litigation of the settlement of claims arising out of the performance of this contract, or (3) costs and expenses of this contract as to which exception has been taken by the Comptroller General or any of his duly authorized representatives, shall continue until such appeals, litigation, claims, or exceptions have been disposed of.
- e. Nothing in this contract shall be deemed to preclude an audit by the General Accounting Office of any transaction under this contract.

#### Article 17. PROPERTY

- a. Real Property. The Contractor and DOE have developed mutually satisfactory arrangements for the lease or the use and occupancy of real property of the Contractor in connection with the work under this contract. In certain instances, structures and other improvements financed by the Government have been or will be constructed or altered. These arrangements also cover the disposition of such structures and improvements.
  - (1) Government Property on Leased Premises. The basic terms and conditions applicable to property of the Contractor leased to the Government are set forth in Appendix C. The provisions of Appendix C shall apply with regard

to the right of ingress and egress to and from, the maintenance and repair of, the furnishing of utilities to, the future use of, and the ultimate disposition of any government-owned building or buildings, the Government-leased property on which said building or buildings are located, and any other improvements which, by agreement of the parties, shall be made subject to the provisions of Appendix C. Except as provided in Appendix C, DOE shall have no obligation to restore the premises with respect to such structures and improvements.

(2) Use and Occupancy of Space in Contractor-Owned Buildings. The Contractor shall provide from time to time such necessary space in Contractor-owned buildings, as may be agreed upon by the parties, to be used and occupied by the Laboratory in connection with the work under this contract in accordance with the applicable provisions of Appendix D.

(3) Disposition of Property Altered or Constructed on Premises Not Covered by Long-Term Lease Arrangements.

(a) After the expiration or termination of this contract, or before expiration or termination if DOE so agrees, the Contractor shall elect, with respect to premises owned by the Contractor and not covered by the provisions of subparagraph a.(1) above, upon which any alteration, construction or improvement has been done hereunder (or under Contract No. OEMsr-433, Contract No. W-7405-Eng-7, or Contract No. W-7405-Eng-90, as amended or supplemented) prior to July 1, 1953, whether (i) to retain the benefit of such construction or alteration, in which case the Contractor shall return to or credit the Government with the portion of the reimbursement by the Government for its costs or expenditures therefor determined by negotiation between the Contractor and DOE to be fair and proper, or (ii) to have such premises restored to substantially the same condition as prior to such alteration or construction, in which case it shall retain all such reimbursement, and the Government shall pay the net cost of such restoration. The Contractor shall furnish all information deemed relevant by DOE.

(b) Effective on July 1, 1953, it is understood and agreed that prior to any construction, improvement or alteration of any structure or other improvement on property of the Contractor which is not covered by a long-term lease pursuant to subparagraph a.(1) above and which is financed in whole or in part by Government funds under this contract other than restoration work under subparagraph a.(1) and sub-subparagraph a.(3)(a) above, the parties shall agree in writing as to the approximate allocation of costs as between the Government and the Contractor and the method of disposition of such construction, improvement or alteration. The plans for any construction, improvement, or alteration under

this paragraph shall be purely utilitarian and without unnecessary refinements. Except as otherwise may be provided in such agreements, it is understood and agreed that DOE shall be under no obligation to restore the premises affected by any such construction, improvement or alteration made to or upon such property of the Contractor in the course of the work under this contract. Such agreements shall be executed by representatives of the parties authorized to sign this contract, or modifications thereof, without the execution of a formal supplement to this contract. The requirements of this paragraph apply to work to be performed by the Contractor as well as that to be performed by third parties.

- b. Furnishing of Government Property. The Government reserves the right to furnish any property or services required for the performance of the work under this contract.
- c. Title to Property. Title to all property furnished by the Government shall remain in the Government except as otherwise provided in this article. Except as otherwise provided by the Contracting Officer, title to all materials, equipment, supplies, and tangible personal property of every kind and description purchased by the Contractor, for the cost of which the Contractor is entitled to be reimbursed as a direct item of cost under this contract, shall pass directly from the vendor to the Government. The Government reserves the right to inspect, and to accept or reject, any item of such property. The Contractor shall make such disposition of rejected items as the Contracting Officer shall direct. Title to other property, the cost of which is reimbursable to the Contractor under this contract, shall pass to and vest in the Government upon (i) issuance for use of such property in the performance of this contract, or (ii) commencement of processing or use of such property in the performance of this contract, or (iii) reimbursement of the cost thereof by the Government, whichever occurs first. Property furnished by the Government and property purchased or furnished by the Contractor, title to which vests in the Government under this paragraph, is hereinafter referred to as Government property. Title to Government property shall not be affected by the incorporation of the property into or the attachment of it to any property not owned by the Government, nor shall such Government property or any part thereof be or become a fixture or lose its identity as personalty by reason of affixation to any realty.
- d. Identification. To the extent directed by the Contracting Officer, the Contractor shall identify Government property coming into the Contractor's possession or custody by marking or segregating in such a way, satisfactory to the Contracting Officer, as shall indicate its ownership by the Government.

- e. Disposition. The Contractor shall make such disposition of Government property which has come into the possession or custody of the Contractor under this contract as the Contracting Officer shall direct. When authorized in writing by the Contracting Officer during the progress of the work or upon completion or termination of this contract, the Contractor may, upon such terms and conditions as the Contracting Officer may approve, sell or exchange such property or acquire such property at a price agreed upon by the Contracting Officer and the Contractor as the fair value thereof. The amount received by the Contractor as the result of any disposition, or the amount of the agreed fair value of any such property acquired by the Contractor, shall be applied in reduction of cost allowable under this contract, or shall be otherwise credited to the account of the Government, as the Contracting Officer may direct. Upon completion of the work or the termination of this contract, the Contractor shall render an accounting, as prescribed by the Contracting Officer, of all Government property which came into the possession or custody of the Contractor under this contract.
- f. Protection of Government Property--Classified Materials. The Contractor shall take all reasonable precautions, as directed by the Contracting Officer, or in the absence of such directions in accordance with sound industrial practice, to safeguard and protect Government property in the Contractor's possession or custody. Special measures shall be taken by the Contractor in the protection of and accounting for any classified or special materials involved in the performance of this contract in accordance with the regulations and requirements of DOE.
- g. Risk of Loss of Government Property. The Contractor shall not be liable for loss or destruction of or damage to Government property in the Contractor's possession unless such loss, destruction or damage results from wilful misconduct or lack of good faith on the part of the Contractor's managerial personnel, or unless such loss, destruction, or damage results from a failure on the part of the Contractor's managerial personnel to take all reasonable steps to comply with any appropriate written directives of the Contracting Officer to safeguard such property in accordance with the provisions of paragraph f. above. The term "Contractor's managerial personnel" as used herein means the Contractor's directors, officers, and any of its managers, superintendents, or other equivalent representatives who have supervision or direction of (i) all or substantially all of the Contractor's business; or (ii) all or substantially all of the Contractor's operation at any one plant or separate location at which this contract is being performed; or (iii) a separate and complete major industrial operation in connection with the performance of this contract; or (iv) a separate and complete major construction, alteration, or repair operation in connection with performance of this contract.

- h. Steps to be Taken in Event of Loss. Upon the happening of any loss or destruction of or damage to Government property in the possession or custody of the Contractor, the Contractor shall immediately inform the Contracting Officer of the occasion and extent thereof, shall take all reasonable steps to protect the property remaining, and shall repair or replace the lost, destroyed, or damaged property if and as directed by the Contracting Officer, but shall take no action prejudicial to the right of the Government to recover therefor and shall furnish to the Government on request, all reasonable assistance in obtaining recovery.
- i. Government Property for Government Use Only. Government property shall be used only for the performance of this contract, except as otherwise approved in writing by the Contracting Officer.
- j. Property Management. The Contractor shall maintain and administer a property management system, subject to the approval of the Contracting Officer, of accounting for and control, utilization, maintenance, repair, protection and preservation of Government property in his possession under the contract. The Contractor's property management system shall be maintained and administered in accordance with sound business practice, and in accordance with Department of Energy Property Management Regulations and such directives or instructions which the Contracting Officer may from time to time prescribe.

Article 18. CONTRACTOR PROCUREMENT

- a. DOE reserves the right at any time to require that the Contractor submit for approval any or all procurements under this contract. The Contractor shall not procure any items whose purchase is expressly prohibited by the written direction of DOE and shall use such special and directed procurement sources as may be expressly required by DOE. The Contractor shall provide information concerning procurement methods, practices, and procedures used or proposed to be used, and shall use methods, practices, and procedures which are acceptable to DOE. Procurement arrangements under this contract shall be made in the name of the Contractor, shall not bind nor purport to bind the Government, shall not relieve the Contractor of any obligation under this contract (including among other things, the obligation properly to supervise, administer, and coordinate the work of subcontractors) and shall be in such form and contain such provisions as are required by this contract or as DOE may prescribe.
- b. In addition to, and without derogation of any rights under paragraph a. of this article and any other provision in this contract, the Contractor

shall require subcontractors to furnish certified cost or pricing data, and shall include in such subcontracts the clause set forth in Attachment I hereto, except as otherwise directed or approved by DOE.

- c. Procurement or transfer of equipment, materials, supplies, or services from a Contractor-controlled source (any division or other organizational component of the Contractor [exclusive of the contracting component] and any subsidiary or affiliate of the Contractor under a common control) shall be considered a procurement for the purposes of this article.

**Article 19. BUY AMERICAN ACT**

- a. In acquiring end products, the Buy American Act (41 U.S. Code 10a-d) provides that the Government give preference to domestic source end products. For the purpose of this article:
- (1) "Components" means those articles, materials, and supplies which are directly incorporated in the end products;
  - (2) "End products" means those articles, materials, and supplies, which are to be acquired under this contract for public use; and
  - (3) A "domestic source end product" means (i) an unmanufactured end product which has been mined or produced in the United States and (ii) an end product manufactured in the United States if the cost of the components thereof which are mined, produced, or manufactured in the United States exceeds fifty percent of the costs of all its components. For the purposes of this a.(3)(ii), components of foreign origin of the same type or kind as the products referred to in b.(2) or b.(3) of this article shall be treated as components mined, produced, or manufactured in the United States.
- b. The Contractor agrees that there will be used under this contract (by the Contractor, its subcontractors, materialmen, and suppliers) only domestic source end products, except end products:
- (1) Which are for use outside the United States;
  - (2) Which the Government determines are not mined, produced, or manufactured in the United States in sufficient and reasonably available commercial quantities and of a satisfactory quality;
  - (3) As to which the Secretary determines the domestic preference to be inconsistent with the public interest; or
  - (4) As to which the Secretary determines the cost to the Government to be unreasonable.

(The foregoing requirements are administered in accordance with Executive Order No. 10582, dated December 17, 1954.)

Article 20. UTILIZATION OF LABOR SURPLUS AREA CONCERNS

(The following article is applicable if this contract exceeds \$10,000).

- a. It is the policy of the Government to award contracts to labor surplus area concerns that agree to perform substantially in labor surplus areas, where this can be done consistent with the efficient performance of the contract and at prices no higher than are obtainable elsewhere. The Contractor agrees to use its best efforts to place its subcontracts in accordance with this policy.
- b. In complying with paragraph a. of this article and with paragraph b. of the article of this contract entitled "Utilization of Small Business Concerns and Small Business Concerns Owned and Controlled by Socially and Economically Disadvantaged Individuals", the Contractor in placing its subcontracts shall observe the following order of preference: (1) Small business concerns that are labor surplus area concerns, (2) other small business concerns, and (3) other labor surplus area concerns.
- c. (1) The term "labor surplus area" means a geographical area identified by the Department of Labor as an area of concentrated unemployment or underemployment or an area of labor surplus.  
(2) The term "labor surplus area concern" means a concern that together with its first-tier subcontractors will perform substantially in labor surplus areas.  
(3) The term "perform substantially in a labor surplus area" means that the costs incurred on account of manufacturing, production, or appropriate services in labor surplus areas exceed 50 percent of the contract price.

Article 21. LABOR SURPLUS AREA SUBCONTRACTING PROGRAM

- a. The Contractor agrees to establish and conduct a program which will encourage labor surplus area concerns to compete for subcontracts within their capabilities. In this connection, the Contractor shall:
  - (1) Designate a liaison officer who will (i) maintain liaison with duly authorized representatives of the Government on labor surplus area matters, (ii) supervise compliance with the "Utilization of Labor Surplus Area Concerns" article, and (iii) administer the Contractor's "Labor Surplus Area Subcontracting Program".
  - (2) Provide adequate and timely consideration of the potentialities of labor surplus area concerns in all "make-or-buy" decisions.
  - (3) Assure that labor surplus area concerns will have an equitable opportunity to compete for subcontracts, particularly by arranging solicitations, time for the preparation of bids, quantities, specifications, and delivery schedules so as to facilitate the participation of labor surplus area concerns.

- (4) Maintain records showing the procedures which have been adopted to comply with the policies set forth in this article and report sub-contract awards. (see 41 CFR 1-16.804-5 regarding use of Optional Form 61). Records maintained pursuant to this article will be kept available for review by the Government until the expiration of one year after the award of this contract, or for such longer period as may be required by any other article of this contract or by applicable law or regulations.
  - (5) Include the "Utilization of Labor Surplus Area Concerns" article in subcontracts which offer substantial labor surplus area subcontracting opportunities.
- b.
- (1) The term "labor surplus area" means a geographical area identified by the Department of Labor as an area of concentrated unemployment or under-employment or an area of labor surplus.
  - (2) The term "concern located in a labor surplus area" means a labor surplus area concern.
  - (3) The term "labor surplus area concern" means a concern that, together with its first-tier subcontractors, will perform substantially in labor surplus areas.
  - (4) The term "perform substantially in labor surplus areas" means that the costs incurred on account of manufacturing, production, or appropriate services in labor surplus areas exceed 50 percent of the contract price.
- c. The Contractor further agrees to insert, in any subcontract hereunder which may exceed \$500,000 and which contains the "Utilization of Labor Surplus Area Concerns" article, provisions which shall conform substantially to the language of this article, including this paragraph c., and to notify the Contracting Officer of the names of such subcontractors.

Article 22. UTILIZATION OF SMALL BUSINESS CONCERNS AND SMALL BUSINESS CONCERNS OWNED AND CONTROLLED BY SOCIALLY AND ECONOMICALLY DISADVANTAGED INDIVIDUALS

- a. It is the policy of the United States that small business concerns and small business concerns owned and controlled by socially and economically disadvantaged individuals shall have the maximum practicable opportunity to participate in the performance of contracts let by and Federal agency.
- b. The Contractor hereby agrees to carry out this policy in the awarding of subcontracts to the fullest extent consistent with the efficient performance of this contract. The Contractor further agrees to cooperate in any studies or surveys as may be conducted by the Small Business Administration or the contracting agency which may be necessary to determine the extent of the Contractor's compliance with this clause.

- c. (1) As used in this contract, the term "small business concern" shall mean a small business as defined pursuant to Section 3 of the Small Business Act and relevant regulations promulgated pursuant thereto.
- (2) The term "small business concern owned and controlled by socially and economically disadvantaged individuals" shall mean a small business concern:
- (1) which is at least 51 per centum owned by one or more socially and economically disadvantaged individuals; or in the case of any publicly-owned business, at least 51 per centum of the stock of which is owned by one or more socially and economically disadvantaged individuals; and
  - (ii) whose management and daily business operations are controlled by one or more of such individuals.

The Contractor shall presume that socially and economically disadvantaged individuals include Black Americans, Hispanic Americans, Native Americans, Asian-Pacific Americans, and other minorities, or any other individual found to be disadvantaged by the Small Business Administration pursuant to section 8(a) of the Small Business Act.

- d. Contractors acting in good faith may rely on written representations by their subcontractors regarding their status as a small business concern or a small business concern owned and controlled by socially and economically disadvantaged individuals.

Article 23. SMALL AND DISADVANTAGED BUSINESS SUBCONTRACTING PLAN

- a. The Contractor agrees to comply in good faith with the Small and Disadvantaged Business Subcontracting Plan which is hereby incorporated in and made a part of this contract. In this connection, the Contractor shall:
- (1) Use his best effort to attain such percentage goals as may be set forth in the plan.
  - (2) Designate an individual who will:
    - (i) Maintain liaison with the Government on matters relating to small business concerns and small business concerns owned and controlled by socially and economically disadvantaged individuals;
    - (ii) Supervise compliance with the article entitled "Utilization of Small Business Concerns and Small Business Concerns Owned and Controlled by Socially and Economically Disadvantaged Individuals"; and

(iii) Administer the Contractor's plan.

(3) Provide adequate and timely consideration of the potentialities of small business concerns and small business concerns owned and controlled by socially and economically disadvantaged individuals in all "make-or-buy" decisions.

(4) Assure that small business concerns and small business concerns owned and controlled by socially and economically disadvantaged individuals will have an equitable opportunity to compete for subcontracts, particularly by arranging solicitations, time for the preparation of bids, quantities, specifications, and delivery schedules so as to facilitate the participation of such concerns. Where the Contractor's lists of potential subcontractors which are small business and small business concerns owned and controlled by socially and economically disadvantaged individuals are excessively long, reasonable effort shall be made to give all such concerns an opportunity to compete over a period of time.

(5) Maintain records showing:

(i) Whether each prospective subcontractor is a small business concern or a small business concern owned and controlled by socially and economically disadvantaged individuals; and

(ii) Procedures which have been adopted to comply with the plan and the policies set forth in this article.

(6) Notify the Contracting Officer before soliciting bids, quotations, or proposals on any subcontract (including purchase orders) in excess of \$100,000 if:

(i) No small business concern or small business concern owned and controlled by socially and economically disadvantaged individuals is to be solicited, and

(ii) The Contracting Officer's consent to the subcontract is required by a "Subcontracts" clause in this contract. Such notification will state the Contractor's reasons for non-solicitation of small business concerns or small business concerns owned and controlled by socially and economically disadvantaged individuals and will be given as early in the procurement cycle as possible so that the Contracting Officer may suggest potentially qualified small business concerns or small business concerns owned and controlled by socially and economically disadvantaged individuals. In no case will the procurement action be held up when to do so would, in

the Contractor's judgement, delay performance under the contract and the Contractor's notification shall specify that he is proceeding with the solicitation.

- (7) Include the "Utilization of Small Business Concerns and Small Business Concerns Owned and Controlled by Socially and Economically Disadvantaged Individuals" clause in all subcontracts over \$10,000 which offer further subcontracting opportunities.
  - (8) Cooperate in any studies or surveys of the Contractor's subcontracting procedures and practices as may be required by the DOE or the Small Business Administration.
  - (9) Submit reports of subcontracting to small and disadvantaged business concerns on such forms as may be specified elsewhere in this contract.
- b. The Contractor agrees that failure to comply in good faith with the article entitled "Utilization of Small Business Concerns and Small Business Concerns Owned and Controlled by Socially and Economically Disadvantaged Individuals", or the terms of the subcontracting plan incorporated into the contract will be a material breach of the contract and the contract may be terminated, in whole or in part, for default.
  - c. The Contractor further agrees to insert in all subcontracts hereunder (except those with small business concerns) which contain the clause entitled "Utilization of Small Business Concerns and Small Business Concerns Owned and Controlled by Socially and Economically Disadvantaged Individuals" and which may exceed \$1,000,000 in the case of a subcontract for the construction of any public facility or in excess of \$500,000 in the case of all other subcontracts, provisions which shall conform substantially to the language of this article, including this paragraph c., and to notify the Contracting Officer of the names of such subcontractors.
  - d. The provisions of this article shall not apply to small business concerns.
  - e. The subcontracting plan referred to in paragraph a. above is for the fiscal year ending September 30, 1984. The Contractor agrees that, by July 31, 1984 and by each anniversary date thereafter, the Contractor shall submit to the Contracting Officer a proposed small and disadvantaged business subcontracting plan for the ensuing Government fiscal year, or portion thereof remaining under the term of this contract. The plan for the pertinent period, as and when approved by the Contracting Officer, shall be deemed incorporated into and made a part of this contract.

Article 24. EMPLOYMENT OF THE HANDICAPPED

- a. The Contractor will not discriminate against any employee or applicant for employment because of physical or mental handicap in regard to any position

for which the employee or applicant for employment is qualified. The Contractor agrees to take affirmative action to employ, advance in employment and otherwise treat qualified handicapped individuals without discrimination based upon their physical or mental handicap in all employment practices such as the following: employment, upgrading, demotion or transfer, recruitment, advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship.

- b. The Contractor agrees to comply with the rules, regulations, and relevant orders of the Secretary of Labor issued pursuant to the Rehabilitation Act of 1973, Public Law 93-112, as amended (hereinafter referred to as the "Act").
- c. In the event of the Contractor's noncompliance with the requirements of this article, actions for noncompliance may be taken in accordance with the rules, regulations and relevant orders of the Secretary of Labor issued pursuant to the Act.
- d. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices in a form to be prescribed by the Director, Office of Federal Contract Compliance Programs, Department of Labor, provided by or through the Contracting Officer. Such notices shall state the Contractor's obligation under the law to take affirmative action to employ and advance in employment qualified handicapped employees and applicants for employment, and the rights of applicants and employees.
- e. The Contractor will notify each labor union or representative of workers with which it has a collective bargaining agreement or other contract understanding, that the Contractor is bound by the terms of section 503 of the Act, and is committed to take affirmative action to employ and advance in employment physically and mentally handicapped individuals.
- f. The Contractor will include the provisions of this article in every subcontract or purchase order of \$2,500 or more unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 503 of the Act, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the Director of the Office of Federal Contract Compliance Programs may direct to enforce such provisions, including action for noncompliance.

Article 25. COVENANT AGAINST CONTINGENT FEES

- a. Warranty. Termination or Deduction for Breach. The Contractor warrants that no person or selling agency has been employed or retained to solicit or secure this contract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees or bona fide established commercial or selling

agencies maintained by the Contractor for the purpose of securing business. For breach or violation of this warranty, the Government shall have the right to annul this contract without liability or in its discretion to deduct from the contract price or consideration, or otherwise recover, the full amount of such commission, percentage, brokerage, or contingent fee.

- b. Subcontracts and Purchase Orders. Unless otherwise authorized by the Contracting Officer in writing, the Contractor shall cause provisions similar to the foregoing to be inserted in all subcontracts and purchase orders entered into under this contract.

Article 26. OFFICIALS NOT TO BENEFIT

No member of or delegate to Congress, or resident commissioner, shall be admitted to any share or part of this contract or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this contract if made with a corporation for its general benefit.

Article 27. CLEAN AIR AND WATER

(Applicable only if the contract exceeds \$100,000, or the Contracting Officer has determined that the orders under an indefinite quantity contract in any one year will exceed \$100,000, or a facility to be used has been the subject of a conviction under the Clean Air Act (42 U.S.C. 1857c-8(c)(1)) or the Federal Water Pollution Control Act (33 U.S.C. 1319 (c)) and is listed by EPA, or the contract is not otherwise exempt.)

- a. The Contractor agrees as follows:

- (i) to comply with all the requirements of section 114 of the Clean Air Act, as amended (42 U.S.C. 1857, et seq., as amended by Public Law 91-604) and section 308 of the Federal Water Pollution Control Act (33 U.S.C. 1251, et seq., as amended by Public Law 92-500), respectively, relating to inspection, monitoring, entry, reports, and information, as well as other requirements specified in section 114 and section 308 of the Air Act and the Water Act, respectively, and all regulations and guidelines issued thereunder before the award of this contract.
- (ii) that no portion of the work required by this prime contract will be performed in a facility listed on the Environmental Protection Agency List of Violating Facilities on the date when this contract was awarded unless and until the EPA eliminates the name of such facility or facilities from such listing.

- (iii) to use his best efforts to comply with Clean Air Standards and Clean Water Standards at the facilities in which the contract is being performed.
- (iv) to insert the substance of the provisions of this clause in any nonexempt subcontract, including this subparagraph (iv).

b. The terms used in this article have the following meanings:

- (i) The term "Air Act" means the Clean Air Act, as amended, (42 U.S.C. 1857, et seq., as amended by Public Law 91-604).
- (ii) The term "Water Act" means Federal Water Pollution Control Act, as amended (33 U.S.C. 1251, et seq., as amended by Public Law 92-500).
- (iii) The term "Clean Air Standards" means any enforceable rules, regulations, guidelines, standards, limitations, orders, controls, prohibitions, or other requirements which are contained in, issued under, or otherwise adopted pursuant to the Air Act or Executive Order 11738, an applicable implementation plan as described in section 110 (d) of the Clean Air Act (42 U.S.C. 1857c-5(d)), an approved implementation procedure or plan under section 111(c) or section 111(d), respectively, of the Air Act (42 U.S.C. 1857c-6(c) or (d)), or an approved implementation procedure under section 112 (d) of the Air Act (42 U.S.C. 1857c-7(d)).
- (iv) The term "Clean Water Standards" means any enforceable limitation, control, condition, prohibition, standard, or other requirement which is promulgated pursuant to the Water Act or contained in a permit issued to a discharger, by the Environmental Protection Agency or by a State under an approved program, as authorized by section 402 of the Water Act (33 U.S.C. 1342), or by a local government to ensure compliance with pretreatment regulations as required by section 307 of the Water Act (33 U.S.C. 1317).
- (v) The term "compliance" means compliance with Clean Air or Water Standards. Compliance shall also mean compliance with a schedule or plan ordered or approved by a court of competent jurisdiction, the Environmental Protection Agency or an air or water pollution control agency in accordance with the requirement of the Air Act or Water Act and regulations issued pursuant thereto.

- (vi) The term "facility" means any building, plant, installation, structure, mine, vessel, or other floating craft, location, or site of operations, owned, leased, or supervised by a contractor or subcontractor, to be utilized in the performance of a contract or subcontract. Where a location or site of operations contains or includes more than one building, plant, installation, or structure, the entire location shall be deemed to be a facility except where the Director, Office of Federal Activities, Environmental Protection Agency, determines that independent facilities are co-located in one geographical area.

**Article 28. USE OF U. S. FLAG COMMERCIAL VESSELS**

a. The Cargo Preference Act of 1954 (P. L. 664, August 26, 1954, 68 Stat. 832, 46 U.S.C. 1241(b)), requires that Federal departments or agencies shall transport at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) of equipment, materials, or commodities which may be transported on ocean vessels on privately owned United States flag commercial vessels. Such transportation shall be accomplished whenever:

- (1) Any equipment, materials, or commodities, within or outside the United States, which may be transported by ocean vessel, are:
  - (a) Procured, contracted for, or otherwise obtained for the agency's account; or
  - (b) Furnished to or for the account of any foreign nation without provision for reimbursement.
- (2) Funds or credits are advanced or the convertibility of foreign currencies is guaranteed in connection with furnishing such equipment, materials, or commodities which may be transported by ocean vessel.

Note: This requirement does not apply to small purchases as defined in 41 CFR 1-3.6 or to cargoes carried in the vessels of the Panama Canal Company.

b. The Contractor agrees as follows:

- (1) to utilize privately owned United States flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved whenever shipping any equipment, material, or commodities

under the conditions set forth in a. above pursuant to this contract to the extent such vessels are available at fair and reasonable rates for United States flag commercial vessels.

Note: Guidance regarding fair and reasonable rates for United States flag vessels may be obtained from the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, D. C. 20230: Area Code 202, phone 377-3449.

- (2) To furnish, within 15 working days following the date of loading for shipments originating within the United States or within 25 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, "on-board" commercial ocean bill of lading in English for each shipment of cargo covered by the provisions in a. above to both the Contracting Officer (through the prime Contractor in the case of subcontractor bills of lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, D. C. 20230.
- (3) To insert the substance of the provisions of this article in all subcontracts issued pursuant to this contract except for small purchases as defined in 41 CFR 1-3.6.

(Sec. 205(c); 63 Stat. 390; 40 U.S.C. 486(c))

Article 29. PREFERENCE FOR U.S. FLAG AIR CARRIERS

- a. Pub. L. 93-623 requires that all Federal agencies and Government contractors and subcontractors will use U. S. flag air carriers for international air transportation of personnel (and their personal effects) or property to the extent service by such carriers is available. It further provides that the Comptroller General of the United States shall disallow any expenditure from appropriated funds for international air transportation on other than a U. S. flag air carrier in the absence of satisfactory proof of the necessity therefor.
- b. The Contractor agrees to utilize U. S. flag air carriers for international air transportation of personnel (and their personal effects) or property to the extent service by such carriers is available.
- c. In the event that the Contractor selects a carrier other than a U. S. flag air carrier for international air transportation, it will include a certification on vouchers involving such transportation which is essentially as follows:

CERTIFICATION OF UNAVAILABILITY OF U. S. FLAG  
AIR CARRIERS

I hereby certify that transportation service for personnel (and their personal effects) or property by certificated air carrier was unavailable for the following reasons (see Federal Procurement Regulations (41 CFR 1-1.323-3)): (state reasons).

d. The terms used in this article have the following meanings:

- (1) "International air transportation" means transportation of persons (and their personal effects) or property by air between a place in the United States and a place outside thereof or between two places both of which are outside the United States.
- (2) "U. S. flag air carrier" means one of a class of air carriers holding a certificate of public convenience and necessity issued by the Civil Aeronautics Board, approved by the President, authorizing operations between the United States and/or its territories and one or more foreign countries.
- (3) The term "United States" includes the fifty states, Commonwealth of Puerto Rico, possessions of the United States, and the District of Columbia.

e. The Contractor shall include the substance of this article, including this paragraph e., in each subcontract or purchase hereunder which may involve international air transportation.

Article 30. SECURITY

- a. Contractor's duty to safeguard all classified information. The Contractor shall, in accordance with DOE security regulations and requirements, be responsible for safeguarding all classified information, and protecting against sabotage, espionage, loss and theft, the classified documents and material in the Contractor's possession in connection with the performance of work under this contract. Except as otherwise expressly provided in this contract, the Contractor shall, upon completion or termination of this contract, transmit to DOE any classified matter in the possession of the Contractor or any person under the Contractor's control in connection with performance of this contract or properly destroy the classified matter and complete a Certificate of Nonpossession to be furnished to DOE. If retention by the Contractor of any classified matter is required after the completion or termination of the contract and such retention is approved by the Contracting Officer, the Contractor will complete a Certificate of Possession to be furnished to DOE specifying the classified matter to be retained. The certification

shall include a statement of justification, identify the items and types or categories of matter retained, the conditions governing the retention of the matter, and the period of retention, if known. If the retention is approved by the Contracting Officer, the security provisions of the contract will continue to be applicable to the matter retained.

- b. Regulations. The Contractor agrees to conform to all security regulations and requirements of DOE.
- c. Definition of Classified Information. The term "classified information" means Restricted Data, Formerly Restricted Data, and National Security Information.
- d. Definition of Restricted Data. The term "Restricted Data" means all data concerning (1) design, manufacture, or utilization of atomic weapons; (2) the production of special nuclear material; or (3) the use of special nuclear material in the production of energy, but shall not include data declassified or removed from the Restricted Data category pursuant to Section 142 of the Atomic Energy Act of 1954, as amended.
- e. Definition of Formerly Restricted Data. The term "Formerly Restricted Data" means all data removed from the Restricted Data category under Section 142 d. of the Atomic Energy Act of 1954, as amended.
- f. Definition of National Security Information. The term "National Security Information" means information or material which is owned by, produced for or by, or under the control of the United States Government, which has been determined pursuant to Executive Order 12065 or subsequent and prior Orders to require protection against unauthorized disclosure, and which is so designated.
- g. Security clearance of personnel. The Contractor shall not permit any individual to have access to any classified information, except in accordance with the Atomic Energy Act of 1954, as amended, Executive Order 12065, and the DOE's regulations or requirements applicable to the particular level and category of classified information to which access is required.
- h. Criminal liability. It is understood that disclosure of any classified information relating to the work or services ordered hereunder to any person not entitled to receive it, or failure to safeguard any classified information that may come to the Contractor or any person under the Contractor's control in connection with work under this contract, may subject the Contractor, its agents, employees, or subcontractor's to criminal liability under the laws of the United States. (See the Atomic Energy Act of 1954, as amended, 42 U.S.C. 2100 et seq.; 18 U.S.C. 793 and 794; and Executive Order 12065.)

- i. Subcontracts and purchase orders. Except as otherwise authorized in writing by the Contracting Officer, the Contractor shall insert provisions similar to the foregoing in all subcontracts and purchase orders under this contract.

#### Article 31. CLASSIFICATION

In the performance of the work under this contract, the Contractor shall ensure that an Authorized Original Classifier or Derivative Classifier shall assign classifications to all documents, material, and equipment originated or generated under the contract in accordance with classification regulations and guidance furnished to the Contractor by the DOE. Every subcontract and purchase order issued hereunder involving the origination or generation of classified documents, material, or equipment shall include a provision to the effect that in the performance of such subcontract or purchase order, the subcontractor or supplier shall ensure that an Authorized Original Classifier or Derivative Classifier shall assign classifications to all such documents, materials, and equipment in accordance with classification regulations and guidance furnished to such subcontractor or supplier by the Contractor.

#### Article 32. EQUAL OPPORTUNITY

(The following article is applicable unless this contract is exempt under the rules, regulations, and relevant orders of the Secretary of Labor (41 CFR, ch. 60).)

During the performance of this contract, the Contractor agrees as follows:

- a. The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited, to the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the Contracting Officer setting forth the provisions of this Equal Opportunity article.
- b. The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

- c. The Contractor will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the Contracting Officer, advising the labor union or workers' representative of the Contractor's commitments under this Equal Opportunity article, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- d. The Contractor will comply with all provisions of Executive Order No. 11246 of September 24, 1965, as amended by Executive Order No. 11375 of October 13, 1967, and of the rules, regulations, and relevant orders of the Secretary of Labor.
- e. The Contractor will furnish all information and reports required by Executive Order No. 11246 of September 24, 1965, as amended by Executive Order No. 11375 of October 13, 1967, and of the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to its books, records, and accounts by the Department of Energy and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
- f. In the event of the Contractor's noncompliance with the Equal Opportunity article of this contract or with any of the said rules, regulations, or orders, this contract may be cancelled, terminated, or suspended, in whole or in part, and the Contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order No. 11246 of September 24, 1965, as amended by Executive Order No. 11375 of October 13, 1967, and such other sanctions may be imposed and remedies invoked as provided in Executive Order No. 11246 of September 24, 1965, as amended by Executive Order No. 11375 of October 13, 1967, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
- g. The Contractor will include the provisions of paragraphs a. through g. hereof in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order No. 11246 of September 24, 1965, as amended by Executive Order No. 11375 of October 13, 1967, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the Department of Energy may direct as a means of enforcing such provisions including sanctions for noncompliance: Provided, however, That in the event the Contractor becomes involved in, or is threatened with, litigation with, a subcontractor or vendor as a result of such direction by the Department of Energy the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

Article 33. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT - OVERTIME COMPENSATION  
(40 U.S.C. 327-333)

This contract, to the extent that it is of a character specified in the Contract Work Hours and Safety Standards Act (40 U.S.C. 327-333), is subject to the following provisions and to all other applicable provisions and exceptions of such Act and the regulations of the Secretary of Labor thereunder.

- a. Overtime Requirements. No Contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics, shall require or permit any such laborer or mechanic, in any workweek in which he or she is employed on such work to work in excess of eight hours in any calendar day or in excess of forty hours in such workweek unless such laborer or mechanic, receives compensation at a rate not less than one and one-half times the basic rate of pay for all such hours worked in excess of eight hours in any calendar day or in excess of forty hours in such workweek, whichever is greater.
- b. Violation; Liability for Unpaid Wages; Liquidated Damages. In the event of any violation of the provisions set forth in paragraph a. of this article, the Contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such Contractor and subcontractor shall be liable to the United States (in case of work done under contract for the District of Columbia or a territory, to such district or such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the provisions set forth in paragraph a. of this article in the sum of \$10 for each calendar day for which such individual was required or permitted to work in excess of eight hours or in excess of the standard workweek of forty hours without payment of the overtime wages required by provisions set forth in paragraph a. of this article.
- c. Withholding for unpaid wages and liquidated damages. The Contracting Officer shall upon his/her own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the Contractor or subcontractor under any such contract or any other Federal contract with the same Prime Contractor, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same Prime Contractor such sums as may be determined to be necessary to satisfy any liabilities of such Contractor or subcontractor for unpaid wages and liquidated damages as provided in the provisions set forth in paragraph b. of this article.

- d. Subcontracts. The Contractor or subcontractor shall insert in any subcontracts the provisions set forth in paragraphs a. through d. of this article and also a clause requiring the subcontractors to include these provisions in any lower tier subcontracts. The Prime Contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the provisions set forth in paragraphs a. through d. of this article.

Article 34. PAYROLLS AND BASIC RECORDS

- a. The Contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the contract work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including watchmen and guards, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classification, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid.
- b. The records to be maintained under paragraph a. of this article shall be made available by the Contractor or subcontractor for inspection, copying, or transcription by the Contracting Officer or the Department of Labor or their authorized representatives. The Contractor and subcontractors will permit such representatives to interview employees during working hours on the job.
- c. The Contractor shall insert paragraphs a. through c. of this article in all subcontracts, and shall require their inclusion in all subcontracts of any tier.

Article 35. CONVICT LABOR

In connection with the performance of work under this contract, the Contractor agrees not to employ any person undergoing sentence of imprisonment except as provided by Public Law 89-176, September 10, 1965 (18 U.S.C. 4082(c)(2)) and Executive Order 11755, December 29, 1973.

Article 36. NOTICE OF LABOR DISPUTES.

Whenever an actual or potential labor dispute is delaying or threatens to delay the performance of the work, the Contractor shall immediately notify DOE in writing. Such notice shall include all relevant information concerning the dispute and its background.

Article 37. DAVIS BACON AND OTHER LABOR PROVISIONS FOR CONSTRUCTION SUBCONTRACTS

Upon request of the Contracting Officer and acceptance thereof by the Contractor,

the Contractor, shall procure, by subcontract, the construction of new facilities or the alteration or repair of Government-owned facilities at the Laboratory. Any subcontract entered into under this article shall be subject to the written approval of the Contracting Officer and shall contain the provisions relative to labor and wages required by law to be included in contracts for the construction, alteration, and/or repair, including painting and decorating, on a public building or public work.

Article 38. WALSH-HEALEY PUBLIC CONTRACTS ACT

Except as otherwise may be approved in writing by the Contracting Officer, the Contractor agrees to insert the following provision in purchase orders and subcontracts under this contract: "If this subcontract is for the manufacture or furnishing of materials, supplies, articles, or equipment in an amount which exceeds or may exceed \$10,000.00 and is otherwise subject to the Walsh-Healey Public Contract Act, as amended (41 U.S. Code 35-45), there are hereby incorporated by references all representations and stipulations required by said Act and regulations issued thereunder by the Secretary of Labor, such representations and stipulations being subject to all applicable rulings and interpretations of the Secretary of Labor which are now or may hereafter be in effect.

Article 39. SERVICE CONTRACT ACT OF 1965 (41 U.S.C. 351)

Except as otherwise approved in writing by the Contracting Officer, the Contractor shall insert the appropriate clause required by FPR Subpart 1-12.9 in subcontracts, the principal purpose of which is to furnish services through the use of service employees.

Article 40. STATE AND LOCAL TAXES

- a. The Contractor agrees to notify the Contracting Officer of any State or local tax, fee, or charge levied or purported to be levied on or collected from the Contractor with respect to the contract work, any transaction thereunder, or property in the custody or control of the Contractor and constituting an allowable item of cost if due and payable, but which the Contractor has reason to believe, or the Contracting Officer has advised the Contractor, is or may be inapplicable or invalid; and the Contractor further agrees to refrain from paying any such tax, fee, or charge unless authorized in writing by the Contracting Officer. Any State or local tax, fee, or charge paid with the approval of the Contracting Officer or on the basis of advice from the Contracting Officer that such tax, fee, or charge is applicable and valid, and which would otherwise be an allowable item of cost, shall not be disallowed as an item of cost by reason of any subsequent ruling or determination that such tax, fee, or charge was in fact inapplicable or invalid.
- b. The Contractor agrees to take such action as may be required or approved by the Contracting Officer to cause any State or local tax, fee, or

charge which would be allowable to be paid under protest; and to take such action as may be required or approved by the Contracting Officer to seek recovery of any payments made, including assignment to the Government or its designee of all rights to an abatement or refund thereof, and granting permission for the Government to join with the Contractor in any proceedings for the recovery thereof or to sue for recovery in the name of the Contractor. If the Contracting Officer directs the Contractor to institute litigation to enjoin the collection of or to recover payment of any such tax, fee, or charge referred to above, or if a claim or suit is filed against the Contractor for a tax, fee, or charge it has refrained from paying in accordance with this article, the procedures and requirements of the article entitled "Litigation and Claims" shall apply and the costs and expenses incurred by the Contractor shall be allowable items of cost, as provided in this contract, together with the amount of any judgment rendered against the Contractor.

- c. The Government shall save the Contractor harmless from penalties and interest incurred through compliance with this article. All recoveries or credits in respect of the foregoing taxes, fees, and charges (including interest) shall inure to and be for the sole benefit of the Government.

Article 41. REQUIRED BONDS AND INSURANCE -- EXCLUSIVE OF GOVERNMENT PROPERTY

The Contractor shall procure and maintain such bonds and insurance as are required by law or by the written direction of the Contracting Officer subject to the conditions set forth below. The terms and conditions of any such bonds and insurance shall conform to the directions of the Contracting Officer. In view of the provisions of the article entitled "Property", the Contractor shall not procure or maintain for its own protection any insurance covering loss or destruction of or damage to Government-owned property.

- a. The Contractor shall procure and thereafter maintain workmen's compensation, employer's liability, comprehensive general liability (bodily injury), and comprehensive automobile liability (bodily injury and property damage) insurance, with respect to performance under this contract, and such other insurance as the Contracting Officer may from time to time require with respect to performance under this contract: Provided, That the Contractor may with the approval of the Contracting Officer maintain a self-insurance program: And provided further, That with respect to workmen's compensation the Contractor is qualified pursuant to statutory authority. All insurance required pursuant to the provisions of this paragraph shall be in such form, in such amounts, and for such periods of time as the Contracting Officer may from time to time require or approve, and with insurers approved by the Contracting Officer.

- b. The Contractor agrees, to the extent and in the manner required by the Contracting Officer, to submit for the approval of the Contracting Officer any other insurance maintained by the Contractor in connection with the performance of this contract and for which the Contractor seeks reimbursement hereunder.
- c. The Contractor shall be reimbursed (1) for the portion allocable to this contract of the reasonable cost of insurance as required or approved pursuant to the provisions of this article, and (2) without regard to and as an exception to the "Obligation of Funds" article of this contract, for liabilities to third persons for loss of or damage to property (other than property (i) owned, occupied, or used by the Contractor or rented to the Contractor, or (ii) in the care, custody, or control of the Contractor), or for death or bodily injury, not compensated by insurance or otherwise, arising out of the performance of this contract, whether or not caused by the negligence of the Contractor, his agents, servants, or employees: Provided, Such liabilities are represented by final judgments or by settlements approved in writing by the Government, and expenses incidental to such liabilities, except liabilities (A) for which the Contractor is otherwise responsible under the express terms of this contract, or (B) with respect to which the Contractor has failed to insure as required or maintain insurance as approved by the Contracting Officer, or (C) for which appropriated funds are not available, or (D) which results from willful misconduct or lack of good faith on the part of any of the Contractor's directors or officers, or on the part of any of his managers, superintendents, or other equivalent representatives, who has supervision or direction of (aa) all or substantially all of the Contractor's business, or (bb) all or substantially all of the Contractor's operations at any one plant or separate location in which this contract is being performed, or (cc) a separate and complete major industrial operation in connection with the performance of this contract. The foregoing shall not restrict the right of the Contractor to be reimbursed for the cost of insurance maintained by the Contractor in connection with the performance of this contract, other than insurance required to be submitted for approval or required to be procured and maintained pursuant to the provisions of this article: Provided, Such cost would constitute allowable cost under the article of this contract entitled "Allowable Costs".
- d. The Contractor shall give the Government or its representatives immediate notice of any suit or action filed, or prompt notice of any claim made, against the Contractor arising out of the performance of this contract, the cost and expense of which may be reimbursable to the Contractor under the provisions of this contract, and the risk of which is then uninsured or in which the amount claimed exceeds the amount of coverage. The Contractor shall furnish immediately to the Government copies of all pertinent papers received by the Contractor. If the amount of the liability claimed exceeds

the amount of coverage; the Contractor shall authorize representatives of the Government to collaborate with counsel for the insurance carrier, if any, in settling or defending such claim. If the liability is not insured or covered by bond, the Contractor shall, if required by the Government, authorize representatives of the Government to settle or defend any such claim and to represent the Contractor in or take charge of any litigation in connection therewith: Provided, however, That the Contractor may, at his own expense, be associated with the representatives of the Government in the settlement or defense of any such claim or litigation.

Article 42. LITIGATION AND CLAIMS

- a. Initiation of Litigation. The Contractor may, with the prior written authorization of the Contracting Officer, and shall, upon the request of the Government, initiate litigation against third parties, including proceedings before administrative agencies, in connection with this contract. The Contractor shall proceed with such litigation in good faith and as directed from time to time by the Contracting Officer.
- b. Defense and Settlement of Claims. The Contractor shall give the Contracting Officer immediate notice in writing (1) of any action including any proceeding before an administrative agency, filed against the Contractor arising out of the performance of this contract, and (2) of any claim against the Contractor, the cost and expense of which is allowable under the article of this contract entitled "Allowable Costs". Except as otherwise directed by the Contracting Officer in writing, the Contractor shall furnish immediately to the Contracting Officer copies of all pertinent papers received by the Contractor with respect to such action or claim. To the extent not in conflict with any applicable policy of insurance, the Contractor may, with the Contracting Officer's approval, settle any such action or claim, shall effect at the Contracting Officer's request an assignment and subrogation in favor of the Government of all the Contractor's rights and claims (except those against the Government) arising out of any such action or claim against the Contractor, and if required by the Contracting Officer, shall authorize representatives of the Government to settle or defend any such action or claim and to represent the Contractor in, or to take charge of, any action. If the settlement or defense of an action or claim against the Contractor is undertaken by the Government, the Contractor shall furnish all reasonable assistance in effecting a settlement or asserting a defense. Where an action against the Contractor is not covered by a policy of insurance, the Contractor shall, with the approval of the Contracting Officer, proceed with the defense of the action in good faith, and in such event the defense of the action shall be at the expense of the Government; provided, however, that the Government shall not be liable for such expense to the extent that it would have been compensated for by insurance which was required by law or by the written direction of the Contracting Officer, but which the Contractor failed to secure through its own fault or negligence.

Article 43. ASSIGNMENT

Neither this contract nor any interest therein nor claim thereunder shall be assigned or transferred by the Contractor except as expressly authorized in writing by the Contracting Officer.

Article 44. PERMITS

Except as otherwise directed by the Contracting Officer, the Contractor shall procure all necessary permits or licenses and abide by all applicable laws, regulations, and ordinances of the United States, and of the state, territory, and political subdivision in which the work under this contract is performed.

Article 45. SAFETY AND HEALTH

The Contractor shall take all reasonable precautions in the performance of the work under this contract to protect the safety and health of employees and of members of the public and shall comply with all applicable safety and health regulations (including reporting requirements) of DOE. The Contracting Officer shall notify in writing, the Contractor of any noncompliance with the provisions of this clause and the corrective action to be taken. After receipt of such notice, the Contractor shall immediately take such corrective action. The Contractor shall continue to maintain a management program and implementation plan as approved by the Contracting Officer. In the event that the Contractor fails to comply with said regulations or requirements of DOE, the Contracting Officer may, without prejudice to any other legal or contractual rights of DOE, issue an order stopping all or any part of the work; thereafter, a start order for resumption of the work may be issued at the discretion of the Contracting Officer. The Contractor shall make no claim for an extension of time or for compensation or damage by reason of, or in connection with, such work stoppage.

Article 46. PRIVACY ACT NOTIFICATION

This contract requires the Contractor to do one or more of the following: design, develop, or operate a system of records on individuals to accomplish an agency function in accordance with the Privacy Act of 1974, Public Law 93-579, December 31, 1974 (5 U.S.C. 552a) and applicable agency regulations. Violation of the Act may involve the imposition of criminal penalties.

Article 47. PRIVACY ACT

a. The Contractor agrees:

- (1) to comply with the Privacy Act of 1974 and the rules and regulations issued pursuant to the Act in the design, development, or operation of any system of records on individuals in order to accomplish an agency function when the contract specifically identifies (i) the system or systems of records and (ii) the work to be performed by the Contractor in terms of any one or combination of the following: (A) design, (B) development, or (C) operation;

- (2) to include the Privacy Act notification contained in this contract in every solicitation and resulting subcontract and in every subcontract awarded without a solicitation when the statement of work in the proposed subcontract requires the design, development, or operation of a system of records on individuals to accomplish an agency function; and
- (3) to include this article, including this paragraph (3); in all subcontracts awarded pursuant to this contract which require the design, development, or operation of such a system of records.

b. In the event of violations of the Act, a civil action may be brought against the agency involved where the violation concerns the design, development, or operation of a system of records on individuals to accomplish an agency function, and criminal penalties may be imposed upon the officers or employees of the agency where the violation concerns the operation of a system of records on individuals to accomplish an agency function. For purposes of the Act when the contract is for the operation of a system of records on individuals to accomplish an agency function, the Contractor and any employee of the Contractor is considered to be an employee of the agency.

c. The terms used in this article have the following meanings:

- (1) "Operation of a system of records" means performance of any of the activities associated with maintaining the system of records including the collection, use, and dissemination of records.
- (2) "Records" means any item, collection, or grouping of information about an individual that is maintained by an agency, including, but not limited to, his education, financial transactions, medical history, and criminal or employment history and that contains his name, or the identifying number, symbol, or other identifying particular assigned to the individual, such as a finger or voice print or photograph.
- (3) "System of records" on individuals means a group of any records under the control of any agency from which information is retrieved by the name of the individual or by some identifying number, symbol, or other identifying particular assigned to the individual.

#### Article 48. DISPUTES

- a. This contract is subject to the Contract Disputes Act of 1978 (P.L. 95-563).
- b. Except as provided in the Act, all disputes arising under or relating to this contract shall be resolved in accordance with this clause.

- c. (i) As used herein, "claim" means a written demand or assertion by one of the parties seeking, as a legal right, the payment of money, adjustment or interpretation of contract terms, or other relief, arising under or relating to this contract.
- (ii) A voucher, invoice, or request for payment that is not in dispute when submitted is not a claim for the purposes of the Act. However, where such submission is subsequently not acted upon in a reasonable time, or disputed either as to liability or amount, it may be converted to a claim pursuant to the Act.
- (iii) A claim by the Contractor shall be made in writing and submitted to the Contracting Officer for decision. A claim by the Government against the Contractor shall be subject to a decision by the Contracting Officer.
- d. For Contractor claims of more than \$50,000, the Contractor shall submit with the claim a certification that the claim is made in good faith; the supporting data are accurate and complete to the best of the Contractor's knowledge and belief; and the amount requested accurately reflects the contract adjustment for which the Contractor believes the Government is liable. The certification shall be executed by the Contractor if an individual. When the Contractor is not an individual, the certification shall be executed by a senior company official in charge at the Contractor's plant or location involved, or by an officer or general partner of the Contractor having overall responsibility for the conduct of the Contractor's affairs.
- e. For Contractor claims of \$50,000 or less, the Contracting Officer must render a decision within 60 days. For Contractor claims in excess of \$50,000, the Contracting Officer must decide the claim within 60 days or notify the contractor of the date when the decision will be made.
- f. The Contracting Officer's decision shall be final unless the Contractor appeals or files a suit as provided in the Act.
- g. The authority of the Contracting Officer under the Act does not extend to claims or disputes which by statute or regulation other agencies are expressly authorized to decide.
- h. Interest on the amount found due on a Contractor claim shall be paid from the date the claim is received by the Contracting Officer until the date of payment.
- i. Except as the parties may otherwise agree, pending final resolution of a claim by the Contractor arising under the contract, the Contractor shall proceed diligently with the performance of the contract in accordance with the Contracting Officer's decision.

Article 49. DISABLED VETERANS AND VETERANS OF THE VIETNAM ERA

- a. The Contractor will not discriminate against any employee or applicant for employment because he or she is a disabled veteran or veteran of the Vietnam era in regard to any position for which the employee or applicant for employment is qualified. The Contractor agrees to take affirmative action to employ, advance in employment, and otherwise treat qualified disabled veterans and veterans of the Vietnam era without discrimination based upon their disability or veterans status in all employment practices such as the following: employment, upgrading, demotion, or transfer, recruitment, advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship.
- b. The Contractor agrees that all suitable employment openings of the Contractor which exist at the time of the execution of this contract and those which occur during the performance of this contract, including those not generated by this contract and including those occurring at an establishment of the Contractor other than the one wherein the contract is being performed but excluding those of independently operated corporate affiliates, shall be listed at an appropriate local office of the State employment service system wherein the opening occurs. The Contractor further agrees to provide such reports to such local office regarding employment openings and hires as may be required.  
  
State and local government agencies holding Federal contracts of \$10,000 or more shall also list all their suitable openings with the appropriate office of the State employment service, but are not required to provide those reports set forth in paragraphs d. and e.
- c. Listing of employment openings with the employment service system pursuant to this article shall be made at least concurrently with the use of any other recruitment source or effort and shall involve the normal obligations which attach to the placing of a bona fide job order, including the acceptance of referrals of veterans and nonveterans. The listing of employment openings does not require the hiring of any particular job applicant or from any particular group of job applicants, and nothing herein is intended to relieve the Contractor from any requirements in Executive orders or regulations regarding nondiscrimination in employment.
- d. The reports required by paragraph b. of this article shall include, but not be limited to, periodic reports which shall be filed at least quarterly with the appropriate local office or, where the Contractor has more than one hiring location in a State, with the central office of that State employment service. Such reports shall indicate for each hiring location (1) the number of individuals hired during the reporting period, (2) the number of nondisabled veterans of the Vietnam era hired,

(3) the number of disabled veterans of the Vietnam era hired, and (4) the total number of disabled veterans hired. The reports should include covered veterans hired for on-the-job training under 38 U.S.C. 1787. The Contractor shall submit a report within 30 days after the end of each reporting period wherein any performance is made on this contract identifying data for each hiring location. The Contractor shall maintain at each hiring location copies of the reports submitted until the expiration of one year after final payment under the contract, during which time these reports and related documentation shall be made available, upon request, for examination by any authorized representatives of the Contracting Officer or of the Secretary of Labor. Documentation would include personnel records respecting job openings, recruitment, and placement.

- e. Whenever the Contractor becomes contractually bound to the listing provisions of this article, it shall advise the employment service system in each State where it has establishments of the name and location of each hiring location in the State. As long as the Contractor is contractually bound to these provisions and has so advised the State system, there is no need to advise the State system of subsequent contracts. The Contractor may advise the State system when it is no longer bound by this contract article.
- f. This article does not apply to the listing of employment openings which occur and are filled outside the 50 States, the District of Columbia, Puerto Rico, Guam, and the Virgin Islands.
- g. The provisions of paragraphs b., c., d., and e. of this article do not apply to openings which the Contractor proposes to fill from within his own organization or to fill pursuant to a customary and traditional employer-union hiring arrangement. This exclusion does not apply to a particular opening once an employer decides to consider applicants outside of his own organization or employer-union arrangement for that opening.
- h. As used in this article:
  - (1) "All suitable employment openings" includes, but is not limited to, openings which occur in the following job categories: production and non-production; plant and office; laborers and mechanics; supervisory and nonsupervisory; technical; and executive, administrative, and professional openings that are compensated on a salary basis of less than \$25,000 per year. This term includes full-time employment, temporary employment of more than 3 days' duration, and part-time employment. It does not include openings which the Contractor proposes to fill from within his own organization or to fill

pursuant to a customary and traditional employer-union hiring arrangement nor openings in an educational institution which are restricted to students of that institution. Under the most compelling circumstances an employment opening may not be suitable for listing, including such situations where the needs of the Government cannot reasonably be otherwise supplied, where listing would be contrary to national security, or where the requirement of listing would otherwise not be for the best interest of the Government.

- (2) "Appropriate office of the State employment service system" means the local office of the Federal/State national system of public employment offices with assigned responsibility for serving the area where the employment opening is to be filled, including the District of Columbia, Guam, Puerto Rico, and the Virgin Islands.
  - (3) "Openings which the Contractor proposes to fill from within his own organization" means employment openings for which no consideration will be given to persons outside the Contractor's organization (including any affiliates, subsidiaries, and the parent companies) and includes any openings which the Contractor proposes to fill from regularly established "recall" lists.
  - (4) "Openings which the Contractor proposes to fill pursuant to a customary and traditional employer-union hiring arrangement" means employment openings which the Contractor proposes to fill from union halls, which is part of the customary and traditional hiring relationship which exists between the Contractor and representatives of his employees.
- i. The Contractor agrees to comply with the rules, regulations, and relevant orders of the Secretary of Labor issued pursuant to the Act.
  - j. In the event of the Contractor's noncompliance with the requirements of this article, actions for noncompliance may be taken in accordance with the rules, regulations, and relevant orders of the Secretary of Labor issued pursuant to the Act.
  - k. The Contractor agrees to post in conspicuous places available to employees and applicants for employment notices in a form to be prescribed by the Director, provided by or through the Contracting Officer. Such notice shall state the Contractor's obligation under the law to take affirmative action to employ and advance in employment qualified disabled veterans and veterans of the Vietnam era for employment, and the rights of applicants and employees.

1. The Contractor will notify each labor union or representative of workers with which it has a collective bargaining agreement or other contract understanding that the Contractor is bound by terms of the Vietnam Era Veteran's Readjustment Assistance Act and is committed to take affirmative action to employ and advance in employment qualified disabled veterans and veterans of the Vietnam era.
- m. The Contractor will include the provisions of this article in every subcontract or purchase order of \$10,000 or more unless exempted by rules, regulations, or orders of the Secretary issued pursuant to the Act, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the Director of the Office of Federal Contract Compliance Programs may direct to enforce such provisions, including action for noncompliance.

Article 50. CONSISTENCY OF COST ACCOUNTING PRACTICES - NONDEFENSE CONTRACT

- a. Unless the Administrator of General Services has prescribed rules or regulations exempting the Contractor or this contract from standards, rules, and regulations promulgated by the Cost Accounting Standards Board, the Contractor, in connection with this contract, shall:
  - (1) Comply with the requirements of 4 CFR Parts 401, Consistency in Estimating, Accumulating and Reporting Costs, and 402, Consistency in Allocating Costs Incurred for the Same Purpose, in effect on the date of award of this contract and administered under the Administration of Cost Accounting Standards article. Compliance shall continue until the Contractor completes performance of work under this contract.
  - (2) Follow consistently its cost accounting practices as required by regulations of the Cost Accounting Standards Board and administered under the Administration of Cost Accounting Standards article. If any change is made in established practices or in disclosed practices for purposes of any contract or subcontract subject to those disclosure requirements, the change must be applied in a consistent manner to this contract. A change to these practices may be proposed, however, by either the Government or the Contractor, and the Contractor agrees to negotiate with the Contracting Officer the terms and conditions under which a change may be made. After the terms and conditions under which the change is to be made have been agreed to, the change must be applied prospectively to this contract.

The Contractor shall, when the parties agree to a change to a cost accounting practice and the Contracting Officer has made the finding required in §332.51 of the Cost Accounting Standards Board's regulations, negotiate an equitable adjustment as provided in the changes clause of this contract. In the absence of the required finding, no agreement may be made under this contract clause that will increase costs paid by the United States.

- (3) Agree to an adjustment of the contract price or cost allowance, as appropriate, if it or a subcontractor fails to comply with the applicable Cost Accounting Standards or to follow any cost accounting practice and such failure results in any increased costs paid by the United States. Such adjustment shall provide for recovery of the increased costs to the United States together with interest thereon computed at the rate determined by the Secretary of the Treasury pursuant to Public Law 92-41, (50 U.S.C. App. 1215(b)(2)), or 7 percent per annum, whichever is less from the time the payment by the United States was made to the time the adjustment is effected.
- b. The Contractor shall permit any authorized representatives of the head of the agency, of the Cost Accounting Standards Board, or of the Comptroller General of the United States to examine and make copies of any documents, papers, or records relating to compliance with the requirements of this article until the expiration of 3 years after final payment under this contract or such lesser time specified in the Federal Procurement Regulations (FPR) Part 1-20.
- c. Unless a subcontract or Subcontractor is exempt under rules or regulations prescribed by the Administrator of General Services, the Contractor shall include the substance of this article including this paragraph c. in all negotiated subcontracts under this contract except that it shall include the substance of the Cost Accounting Standards - Nondefense Contract article set forth in §1-3.1204-2(a) of the FPR in negotiated subcontracts under this contract with subcontractors that are currently performing a national defense contract or subcontract that contains the article entitled Cost Accounting Standards and that are currently required to accept that article in applicable negotiated national defense contracts. The Contractor may elect to use the substance of the solicitation notice set forth in §1-3.1203-3(b) of the FPR in his determination of applicability of cost accounting standards to subcontracts.
- d. The administration of this article by the Government shall be accomplished in conjunction with the administration of the Contractor's national defense contracts and subcontracts, if any,

subject to rules and regulations of the Cost Accounting Standards Board, pursuant to the Administration of Cost Accounting Standards article. For the purposes of the Administration of Cost Accounting Standards article contained in this contract, references to the Disclosure and Consistency of Cost Accounting Practices article shall be deemed to include this Consistency of Cost Accounting Practices - Nondefense Contract article and references to the Cost Accounting Standards articles shall be deemed to include the Cost Accounting Standards - Nondefense Contract article.

Article 51. ADMINISTRATION OF COST ACCOUNTING STANDARDS - NONDEFENSE CONTRACT

For the purpose of administering Cost Accounting Standards requirements under this contract, the Contractor shall:

- a. Submit to the cognizant Contracting Officer a description of the accounting change and the general dollar magnitude of the change to reflect the sum of all increases and the sum of all decreases for all contracts containing a Cost Accounting Standards article, a Disclosure and Consistency of Cost Accounting Practices article, or a Consistency of Cost Accounting Practices article:
  - (1) For any change in cost accounting practices required to comply with a new cost accounting standard in accordance with paragraph (a)(2) and (a)(3)(A) of the Cost Accounting Standards - Nondefense Contract article within 60 days (or such other date as may be mutually agreed to) after award of a contract requiring such change;
  - (2) For any change to cost accounting practices proposed in accordance with paragraph (a)(3)(B) or (a)(3)(C) of the Cost Accounting Standards - Nondefense Contract article or with paragraph a.(2) of the Consistency of Cost Accounting Practices - Nondefense Contracts article not less than 60 days (or such other date as may be mutually agreed to) prior to the effective date of the proposed change; or
  - (3) For any failure to comply with an applicable Cost Accounting Standard or to follow a disclosed practice as contemplated by paragraph (a)(4) of the Cost Accounting Standards - Nondefense Contract article of this contract or with paragraph a.(3) of the Consistency of Cost Accounting Practices - Nondefense Contracts article within 60 days (or such other date as may be mutually agreed to) after the date of agreement of such noncompliance by the Contractor.
- b. Submit a cost impact proposal in the form and manner specified by the cognizant Contracting Officer within 60 days (or such other day as may be mutually agreed to) after the date of determination of the adequacy and compliance of a change submitted pursuant to a.(1), (2), or (3), above.

- c. Agree to appropriate contract and subcontract amendments to reflect adjustments established in accordance with paragraphs (a)(3) and (a)(4) of the Cost Accounting Standards - Nondefense Contract article or with paragraphs a.(2) and a.(3) of the Consistency of Cost Accounting Practices - Nondefense Contracts article.
- d. When the subcontract is subject to either the Cost Accounting Standards - Nondefense article or the Consistency of Cost Accounting Practices - Nondefense Contracts article so state in the body of the subcontract and/or in the letter of award. Self deleting articles shall not be used.
- e. Include the substance of this article in all negotiated subcontracts containing either the Cost Accounting Standards - Nondefense Contract article or the Consistency of Cost Accounting Practices - Nondefense Contracts article. In addition, within 30 days after award of such subcontract, submit the following information to the Contract Administration Office cognizant of the Contractor's facility for transmittal to the Contract Administration Office cognizant of the subcontractor's facility:
  - (1) Subcontractor's name and subcontract number.
  - (2) Dollar amount and date of award.
  - (3) Name of Contractor making the award.
  - (4) A statement as to whether the subcontractor has made or proposes to make any changes to accounting practices that affect prime contracts or subcontracts containing defense or nondefense full or modified coverage clauses because of the award of this subcontract unless such changes have already been reported.
- f. For negotiated subcontracts containing the Cost Accounting Standards - Nondefense Contract article, require the subcontractor to comply with all Standards in effect on the date of final agreement on price as shown on the subcontractor's signed certificate of Current Cost or Pricing Data or date of award, whichever is earlier, of the subcontractor's most recent negotiated defense contract or subcontract containing the Cost Accounting Standards clause.
- g. In the event an adjustment is required to be made to any subcontract hereunder, notify the Contracting Officer in writing of such adjustment and agree to an adjustment in the price or estimated cost and fee of this contract, as appropriate, based upon the adjustment established under the subcontract. Such notice shall be given within 30 days after receipt of the proposed subcontract adjustment, or such other date as may be mutually agreed to, and shall include a proposal for adjustment to such higher tier subcontract or prime contract as appropriate.

- h. When either the Cost Accounting Standards - Nondefense Contract article or the Consistency of Cost Accounting Practices - Nondefense Contracts article and this article are included in subcontracts, the term "Contracting Officer" shall be suitably altered to identify the purchaser.

Article 52. COST ACCOUNTING STANDARDS -- INDEMNITY

Notwithstanding the provisions of Article 50., Consistency of Cost Accounting Practices - Nondefense Contract, the Contractor shall not be liable to the Government for any increased costs or interest thereon, resulting from any failure of the Contractor, with respect to activities carried on at the site of the work, or of a subcontractor to comply with applicable cost accounting standards or to follow any practices disclosed pursuant to the requirements of such article: Provided, that the Contractor shall include in each covered subcontract a clause making the subcontractor liable for any increased costs or interest thereon resulting from any failure of the subcontractor to comply with prescribed standards or disclosed practices.

Article 53. UTILIZATION OF WOMEN-OWNED BUSINESS CONCERNS

- a. It is the policy of the United States Government that women-owned businesses shall have the maximum practicable opportunity to participate in the performance of contracts awarded by any Federal agency.
- b. The Contractor agrees to use his best efforts to carry out this policy in the award of subcontracts to the fullest extent consistent with the efficient performance of this contract. As used in this contract, a "woman-owned business" concern means a business that is at least 51% owned by a woman or women who also control and operate it. "Control" in this context means exercising the power to make policy decisions. "Operate" in this context means being actively involved in the day-to-day management. "Women" mean all women business owners.

Article 54. WOMEN-OWNED BUSINESS CONCERNS SUBCONTRACTING PROGRAM

- a. The Contractor agrees to establish and conduct a program which will enable women-owned business concerns to be considered fairly as subcontractors and suppliers under this contract. In this connection, the Contractor shall:
- (1) Designate a liaison officer who will administer the Contractor's "Women-Owned Business Concerns Program".
  - (2) Provide adequate and timely consideration of the potentialities of known women-owned business concerns in all "make-or-buy" decisions.

- (3) Develop a list of qualified bidders that are women-owned businesses and assure that known women-owned business concerns have an equitable opportunity to compete for subcontracts, particularly by making information on forthcoming opportunities available, by arranging solicitations, time for the preparation of bids, quantities, specifications, and delivery schedules so as to facilitate the participation of women-owned business concerns.
  - (4) Maintain records showing (i) procedures which have been adopted to comply with the policies set forth in this article, including the establishment of a source list of women-owned business concerns; (ii) awards to women-owned businesses on the source list by minority and non-minority women-owned business concerns; and (iii) specific efforts to identify and award contracts to women-owned business concerns.
  - (5) Include the "Utilization of Women-Owned Business Concerns" article in subcontracts which offer substantial subcontracting opportunities.
  - (6) Cooperate in any studies and surveys of the Contractor's women-owned business concerns procedures and practices that the Contracting Officer may from time-to-time conduct.
  - (7) Submit periodic reports of subcontracting to women-owned business concerns with respect to the records referred to in subparagraph (4) above, in such form and manner and at such time (not more often than quarterly) as the Contracting Officer may prescribe.
- b. The Contractor further agrees to insert, in any subcontract hereunder which may exceed \$500,000 or \$1,000,000 in the case of contracts for the construction of any public facility and which offers substantial subcontracting possibilities, provisions which shall conform substantially to the language of this article, including this paragraph b., and to notify the Contracting Officer of the names of such subcontractors.
- c. The Contractor further agrees to require written certification by its subcontractors that they are bona fide women-owned and controlled business concerns in accordance with the definition of a women-owned business concern as set forth in the article of this contract entitled "Women-Owned Business Concerns" at the time of submission of bids or proposals.

Article 55. SOVIET-BLOC CONTROLS

In connection with the contract activities, the Contractor agrees to comply with the requirements set forth in DOE Order 1240.2 and Chapter VIII of DOE

Order 1500.2, both as constituted on the effective date of this Supplemental Agreement, relating to the countries listed therein. From time to time, by written notice to the Contractor, DOE shall have the right to change the listings of countries in said Orders upon a determination by DOE that such change is in conformance with national policy. The Contractor shall have the right to terminate its performance under this contract upon at least 60 days' prior written notice to DOE if the Contractor determines that it is unable, without substantially interfering with its policies as an educational institution or without adversely affecting its performance, to continue performance of the work under this contract as a result of a change in said Orders made by DOE pursuant to the preceding sentence. If the Contractor elects to terminate performance, the provisions of this contract respecting termination for the convenience of the Government shall apply.

Article 56. CONTROLS IN THE NATIONAL INTEREST

The Contractor agrees to comply with the requirements of DOE specified in DOE Order 1240.2 and Chapter VIII of DOE Order 1500.2, both as constituted on the effective date of this Supplemental Agreement, and to such other DOE requirements of the same general nature as the parties may agree to from time to time; these requirements relate to unclassified work, and they shall not be construed to limit or affect in any way the Contractor's obligation to conform to all security regulations and requirements of DOE pertaining to classified work.

Article 57. PRESERVATION OF INDIVIDUAL OCCUPATIONAL RADIATION EXPOSURE RECORDS

Individual occupational radiation exposure records generated in the performance of work under this contract shall be subject to inspection by DOE and shall be preserved by the Contractor until disposal is authorized by DOE, or at the option of the Contractor delivered to DOE upon completion or termination of the contract. If the Contractor exercises the foregoing option, title to such records shall vest in DOE upon delivery.

Article 58. AUTHORIZATION AND CONSENT

The Government hereby gives its authorization and consent for all use and manufacture of any invention described in and covered by a patent of the United States in the performance of this contract or any part hereof or any amendment hereto or any subcontract hereunder (including any lower-tier subcontract).

Article 59. NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT

The provisions of this article shall be applicable only if the amount of this contract exceeds \$10,000.

- a. The Contractor shall report to the Contracting Officer, promptly and in reasonable written detail, each notice or claim of patent or copyright infringement based on the performance of this contract of which the Contractor has knowledge.
- b. In the event of any claim or suit against the Government on account of any alleged patent or copyright infringement arising out of the performance of this contract or out of the use of any supplies furnished or work or services performed hereunder, the Contractor shall furnish to the Government when requested by the Contracting Officer, all evidence and information in possession of the Contractor pertaining to such suit or claim. Such evidence and information shall be furnished at the expense of the Government except where the Contractor has agreed to indemnify the Government.
- c. This article shall be included in all subcontracts.

Article 60. REPORTING OF ROYALTIES

If this contract is in an amount which exceeds \$10,000 and if any royalty payments are directly involved in the contract or are reflected in the contract price to the Government, the Contractor agrees to report in writing to the Patent Counsel (with notification by Patent Counsel to the Contracting Officer) during the performance of this contract and prior to its completion or final settlement the amount of any royalties or other payments paid or to be paid by it directly to others in connection with the performance of this contract together with the names and addresses of licensors to whom such payments are made and either the patent numbers involved or such other information as will permit identification of the patents or other basis on which the royalties are to be paid. The approval of DOE of any individual payments or royalties shall not stop the Government at any time from contesting the enforceability, validity or scope of, or title to, any patent under which a royalty or payments are made.

Article 61. PATENT RIGHTS

a. Definitions.

- (1) "Subject Invention" means any invention or discovery of the Contractor conceived or first actually reduced to practice in the course of or under this contract, and includes any art, method, process, machine, manufacture, design, or composition of matter, or any new and useful improvement thereof, or any variety of plants, whether patented or unpatented under the Patent Laws of the United States of America or any foreign country.
- (2) "Contract" means any contract, grant, agreement, understanding or other arrangement, which includes research, development, or demonstration work, and includes any assignment or substitution of parties.

- (3) "States and domestic municipal governments" means the States of the United States, the District of Columbia, Puerto Rico, the Virgin Islands, American Samoa, Guam, the Trust Territory of the Pacific Islands, and any political subdivision and agencies thereof.
- (4) "Government agency" includes an executive department, independent commission, board, office, agency, administration, authority, Government corporation, or other Government establishment of the Executive Branch of the Government of the United States of America.
- (5) "To the point of practical application" means to manufacture in the case of a composition or product, to practice in the case of a process, or to operate in the case of a machine and under such conditions as to establish that the invention is being worked and that its benefits are reasonably accessible to the public.
- (6) "Patent Counsel" means the DOE Patent Counsel assisting the procuring activity.

b. Allocation of principal rights.

- (1) Assignment to the Government. The Contractor agrees to assign to the Government the entire right, title, and interest throughout the world in and to each Subject Invention, except to the extent that rights are retained by the Contractor under paragraphs b.(2) and c. of this article.
- (2) Greater rights determinations. The Contractor or the employee-inventor with authorization of the Contractor may request greater rights than the nonexclusive license and the foreign patent rights provided in paragraph c. of this article on identified inventions in accordance with 41 CFR 9-9.109-6. Such requests must be submitted to the Patent Counsel (with notification by Patent Counsel to the Contracting Officer) at the time of the first disclosure pursuant to paragraph e.(2) of this article, or not later than 9 months after conception or first actual reduction to practice, whichever occurs first, or such longer period as may be authorized by Patent Counsel (with notification by Patent Counsel to the Contracting Officer) for good cause shown in writing by the Contractor.

c. Minimum rights to the Contractor.

- (1) Contractor license. The Contractor reserves a revocable, nonexclusive, paid-up license in each patent application filed in any country on a Subject Invention and any resulting patent in which the Government acquires title. The license shall extend to the Contractor's domestic subsidiaries and affiliates, if any, within the corporate structure of

which the Contractor is a part and shall include the right to grant sublicenses of the same scope to the extent the Contractor was legally obligated to do so at the time the contract was awarded. The license shall be transferable only with approval of DOE except when transferred to the successor of that part of the Contractor's business to which the invention pertains.

- (2) Revocation limitations. The Contractor's nonexclusive license retained pursuant to paragraph c.(1) of this article and sublicenses granted thereunder may be revoked or modified by DOE, either in whole or in part, only to the extent necessary to achieve expeditious practical application of the Subject Invention under the DOE's published licensing regulations (10 CFR 781), and only to the extent an exclusive license is actually granted. This license shall not be revoked in that field of use and/or the geographical areas in which the Contractor, or its sublicensee, has brought the invention to the point of practical application and continues to make the benefits of the invention reasonably accessible to the public, or is expected to do so within a reasonable time.
- (3) Revocation procedures. Before modification or revocation of the license or sublicense, pursuant to paragraph c.(2) of this article, DOE shall furnish the Contractor a written notice of its intention to modify or revoke the license and any sublicense thereunder, and the Contractor shall be allowed 30 days, or such longer period as may be authorized by the Patent Counsel (with notification by Patent Counsel to the Contracting Officer) for good cause shown in writing by the Contractor, after such notice to show cause why the license or any sublicense should not be modified or revoked. The Contractor shall have the right to appeal, in accordance with 10 CFR 781, any decision concerning the modification or revocation of his license or any sublicense.
- (4) Foreign patent rights. Upon written request to Patent Counsel, in accordance with paragraph e.(2)(i) of this article, and subject to DOE security regulations and requirements, there shall be reserved to the Contractor, the patent rights to a Subject Invention in any foreign country where the Government has elected not to secure such rights provided:

(i) The recipient of such rights, when specifically requested by DOE and three years after issuance of a foreign patent disclosing said Subject Invention, shall furnish DOE a report setting forth:

(A) The commercial use that is being made, or is intended to be made, of said invention, and

(B) The steps taken to bring the invention to the point of practical application or to make the invention available for licensing.

- (ii) The Government shall retain at least an irrevocable, non-exclusive, paid-up license to make, use, and sell the invention throughout the world by or on behalf of the Government (including any Government agency) and States and domestic municipal governments, unless the Secretary or his designee determines that it would not be in the public interest to acquire the license for the States and domestic municipal governments.
- (iii) Subject to the rights granted in c.(1), (2), and (3) of this article, the Secretary or his designee shall have the right to terminate the foreign patent rights granted in this paragraph c.(4) in whole or in part unless the recipient of such rights demonstrates to the satisfaction of the Secretary or his designee that effective steps necessary to accomplish substantial utilization of the invention have been taken or within a reasonable time will be taken.
- (iv) Subject to the rights granted in c.(1), (2), and (3) of this article, the Secretary or his designee shall have the right, commencing four years after foreign patent rights are accorded under this paragraph c.(4) to require the granting of a non-exclusive or partially exclusive license to a responsible applicant or applicants, upon terms reasonable under the circumstances, and in appropriate circumstances to terminate said foreign patent rights in whole or in part, following a hearing upon notice thereof to the public, upon a petition by an interested person justifying such hearing:
- (A) If the Secretary or his designee determines, upon review of such material as he deems relevant, and after the recipient of such rights, or other interested person, has had the opportunity to provide such relevant and material information as the Secretary or his designee may require, that such foreign patent rights have tended substantially to lessen competition or to result in undue market concentration in any section of the United States in any line of commerce to which the technology relates; or
- (B) Unless the recipient of such rights demonstrates to the satisfaction of the Secretary or his designee at such hearing that the recipient has taken effective steps, or within a reasonable time thereafter is expected to take such steps, necessary to accomplish substantial utilization of the invention.

d. Filing of patent applications.

- (1) With respect to each Subject Invention in which the Contractor or the inventor requests foreign patent rights in accordance with paragraph c.(4) of this article, a request may also be made for the right to file and prosecute the U. S. application on behalf of the U. S. Government. If such request is granted, the Contractor or inventor shall file a domestic patent application on the invention within 6 months after the request for foreign patent rights is granted, or such longer period of time as may be approved by the Patent Counsel for good cause shown in writing by the requestor. With respect to the invention, the requestor shall promptly notify the Patent Counsel (with notification by Patent Counsel to the Contracting Officer) of any decision not to file an application.
- (2) For each Subject Invention on which a domestic patent application is filed by the Contractor or inventor, the Contractor or inventor shall:
  - (i) Within 2 months after the filing or within 2 months after submission of the invention disclosure if the patent application previously has been filed, deliver to the Patent Counsel a copy of the application as filed including the filing date and serial number;
  - (ii) Within 6 months after filing the application or within 6 months after submitting the invention disclosure if the application has been filed previously, deliver to the Patent Counsel a duly executed and approved Assignment to the Government, on a form specified by the Government;
  - (iii) Provide the Patent Counsel with the original patent grant promptly after a patent is issued on the application; and
  - (iv) Not less than 30 days before the expiration of the response period for any action required by the Patent and Trademark Office, notify the Patent Counsel of any decision not to continue prosecution of the application.
- (3) With respect to each Subject Invention in which the Contractor or inventor has requested foreign patent rights, the Contractor or inventor shall file a patent application on the invention in each foreign country in which such request is granted in accordance with applicable statutes and regulations and within one of the following periods:
  - (i) Eight months from the date of filing a corresponding United States application, or if such an application is not filed, six months from the date the request was granted;

(ii) Six months from the date a license is granted by the Commissioner of Patents and Trademarks to file the foreign patent

application where such filing has been prohibited by security reasons; or

(iii) Such longer periods as may be approved by the Patent Counsel for good cause shown in writing by the Contractor or inventor.

(4) Subject to the license specified in paragraphs c.(1), (2), and (3) of this article, the Contractor or inventor agrees to convey to the Government, upon request, the entire right, title, and interest in any foreign country in which the Contractor or inventor fails to have a patent application filed in accordance with paragraph d.(3) of this article, or decides not to continue prosecution or to pay any maintenance fees covering the invention. To avoid forfeiture of the patent application or patent the Contractor or inventor shall, not less than 60 days before the expiration period for any action required by any Patent Office, notify the Patent Counsel of such failure or decision, and deliver to the Patent Counsel the executed instruments necessary for the conveyance specified in this paragraph.

e. Invention identification, disclosures, and reports.

(1) The Contractor shall establish and maintain active and effective procedures to ensure that Subject Inventions are promptly identified and timely disclosed. These procedures shall include the maintenance of laboratory notebooks or equivalent records and any other records that are reasonably necessary to document the conception and/or the first actual reduction to practice of Subject Inventions, and records which show that the procedures for identifying and disclosing the inventions are followed. Upon request, the Contractor shall furnish the Contracting Officer a description of these procedures so that he may evaluate and determine their effectiveness.

(2) The Contractor shall furnish the Patent Counsel (with notification by Patent Counsel to the Contracting Officer) on a DOE-approved form:

(i) Except as otherwise expressly directed in writing by DOE Patent Counsel, a written report containing full and complete technical information concerning each Subject Invention within 6 months after conception or first actual reduction to practice whichever occurs first in the course of or under this contract, but in any event prior to any on sale, public use, or public disclosure of such invention known to the Contractor. The report shall identify the contract and inventor and shall be sufficiently complete in technical detail and appropriately illustrated by sketch or diagram to convey to one skilled in the art to which the invention pertains a clear understanding

of the nature, purpose, operation, and to the extent known, the physical, chemical, biological, or electrical characteristics of the invention. The report should also include any request for foreign patent rights under paragraph c.(4) of this article and any request to file a domestic patent application under d.(1) of this article. However, such requests shall be made within the period set forth in paragraph b.(2) of this article. When an invention is reported under this paragraph e.(2)(i), it shall be presumed to have been made in the manner specified in Section 9(a)(1) and (2) of 42 USC 5908 unless the Contractor contends it was not so made in accordance with paragraph g.(2)(ii) of this article.

- (ii) Upon request, but not more than annually, interim reports on a DOE-approved form listing Subject Inventions and subcontracts awarded containing a Patent Rights article for that period and certifying that:
  - (A) The Contractor's procedures for identifying and disclosing Subject Inventions as required by this paragraph e. have been followed throughout the reporting period;
  - (B) All Subject Inventions have been disclosed or that there are no such inventions; and
  - (C) All subcontracts containing a Patent Rights article have been reported or that no such subcontracts have been awarded
- (iii) A final report on a DOE-approved form within three months after completion of the contract work listing all Subject Inventions and all subcontracts awarded containing a Patent Rights article and certifying that:
  - (A) All Subject Inventions have been disclosed or that there were no such inventions; and
  - (B) All subcontracts containing a Patent Rights article have been reported or that no such subcontracts have been awarded.
- (3) The Contractor shall obtain patent agreements to effectuate the provisions of this article from all persons in its employ who perform any part of the work under this contract except nontechnical personnel, such as clerical employees and manual laborers.

- (4) The Contractor agrees that the Government may duplicate and disclose Subject Invention disclosures and all other reports and papers furnished or required to be furnished pursuant to this article. If the Contractor is to file a foreign patent application on a Subject Invention, the Government agrees, upon written request, to use its best efforts to withhold publication of such invention disclosures until the expiration of the time period specified in paragraph d.(1) of this article, but in no event shall the Government or its employees be liable for any publication thereof.

f. Publication.

It is recognized that during the course of the work under this contract, the Contractor or its employees may from time to time desire to release or publish information regarding scientific or technical developments conceived or first actually reduced to practice in the course of or under this contract. In order that public disclosure of such information will not adversely affect the patent interests of DOE or the Contractor, patent approval for release or publication shall be secured from Patent Counsel prior to any such release or publication.

g. Forfeiture of rights in unreported Subject Inventions.

- (1) The Contractor shall forfeit to the Government, at the request of the Secretary his designee, all rights in any Subject Invention which the Contractor fails to report to the Patent Counsel (with notification by Patent Counsel to the Contracting Officer) within six months after the time the Contractor:

- (i) Files or causes to be filed a United States or foreign patent application thereon; or
- (ii) Submits the final report required by paragraph e.(2)(iii) of this article, whichever is later.

- (2) However, the Contractor shall not forfeit rights in a Subject Invention if, within the time specified in (1)(i) or (1)(ii) of this paragraph g., the Contractor:

- (i) Prepared a written decision based upon a review of the record that the invention was neither conceived nor first actually reduced to practice in the course of or under the contract and delivers the same to Patent Counsel (with notification by Patent Counsel to the Contracting Officer); or
- (ii) Contending that the invention is not a Subject Invention the Contractor nevertheless discloses the invention and all facts pertinent to this contention to the Patent Counsel (with notification by Patent Counsel to the Contracting Officer); or

(iii) Establishes that the failure to disclose did not result from the Contractor's fault or negligence.

(3) Pending written assignment of the patent applications and patents on a Subject Invention determined by the Secretary or his designee to be forfeited (such determination to be a final decision under the Disputes Article of this contract), the Contractor shall be deemed to hold the invention and the patent applications and patents pertaining thereto in trust for the Government. The forfeiture provision of this paragraph g. shall be in addition to and shall not supersede other rights and remedies which the Government may have with respect to Subject Inventions.

h. Examination of records relating to inventions.

(1) The Contracting Officer or his authorized representative, until the expiration of three years after final payment under this contract shall have the right to examine any books (including laboratory notebooks), records, documents, and other supporting data of the Contractor which the Contracting Officer or his authorized representative reasonably deem pertinent to the discovery or identification of Subject Inventions or to determine compliance with the requirements of this article.

(2) The Contracting Officer or his authorized representative shall have the right to examine all books (including laboratory notebooks), records and documents of the Contractor relating to the conception or first actual reduction to practice of inventions in the same field of technology as the work under this contract to determine whether any such inventions are Subject Inventions, if the Contractor refuses or fails to:

(i) Establish the procedures of paragraph e.(1) of this article; or

(ii) Maintain and follow such procedures; or

(iii) Correct or eliminate any material deficiency in the procedures within thirty (30) days after the Contracting Officer notifies the Contractor of such a deficiency.

i. Withholding of payment (not applicable to subcontracts).

(1) Any time before final payment of the amount of this contract, the Contracting Officer may, if he deems such action warranted, withhold payment until a reserve not exceeding \$50,000 or 5 percent of the amount of this contract, whichever is less, shall have been set aside if in his opinion the Contractor fails to:

- (i) Establish, maintain and follow effective procedures for identifying and disclosing Subject Inventions pursuant to paragraph e.(1) of this article; or
  - (ii) Disclose any Subject Invention pursuant to paragraph e.(2)(1) of this article; or
  - (iii) Deliver the interim reports pursuant to paragraph e.(2)(ii) of this article; or
  - (iv) Provide the information regarding subcontracts pursuant to paragraph j.(5) of this article; or
  - (v) Convey to the Government in a DOE-approved form the title and/or rights of the Government in each Subject Invention as required by this article.
- (2) The reserve or balance shall be withheld until the Contracting Officer has determined that the Contractor has rectified whatever deficiencies exist and has delivered all reports, disclosures, and other information required by this article.
- (3) Final payment under this contract shall not be made by the Contracting Officer before the Contractor delivers to Patent Counsel all disclosures of Subject Inventions and other information required by e.(2)(1) of this article, the final report required by e.(2)(iii) of this article, and Patent Counsel has issued a patent clearance certification to the Contracting Officer.
- (4) The Contracting Officer may, in his discretion, decrease or increase the sums withheld up to the maximum authorized above. If the Contractor is a nonprofit organization, the maximum amount that may be withheld under this paragraph shall not exceed \$50,000 or 1 percent of the amount of this contract, whichever is less. No amount shall be withheld under this paragraph while the amount specified by this paragraph is being withheld under other provisions of the contract. The withholding of any amount or subsequent payment thereof shall not be construed as a waiver of any rights accruing to the Government under this contract.

j. Subcontracts.

- (1) For the purpose of this paragraph the term "Contractor" means the party awarding a subcontract and the term "Subcontractor" means the party being awarded a subcontract, regardless of tier.

- (2) The Contractor will include the provisions of Attachment II (Coded "SBNP-382A") entitled "Patent Rights (Small Business Firms or Non-profit Organizations - March 1982)" attached hereto and made a part hereof, suitably modified to identify the parties in all subcontracts, regardless of tier, for experimental, developmental or reserach work to be performed by a small business or a domestic nonprofit organization. In all other subcontracts, regardless of tier, for experimental, developmental, demonstration, or research work, the Contractor shall include the Patent Rights article of 41 CFR 9-9.107-5(a) or 41 CFR 9-9.107-6 as appropriate, modified to identify the parties. In the event of refusal by a Subcontractor to accept this article, or if in the opinion of the Contractor this article is inconsistent with DOE's patent policies, the Contractor:
- (1) Shall promptly submit written notice to the Contracting Officer setting forth reasons for the Subcontractor's refusal and other pertinent information which may expedite disposition of the matter; and
  - (ii) Shall not proceed with the subcontract without the written authorization of the Contracting Officer.
- (3) Except as may be otherwise provided in this article, the Contractor shall not, in any subcontract or by using a subcontract as consideration therefor, acquire any rights in its Subcontractor's Subject Invention<sup>2</sup> for the Contractor's own use (as distinguished from such rights as may be required solely to fulfill the Contractor's contract obligations to the Government in the performance of this contract).
- (4) All invention disclosures, reports, instruments, and other information required to be furnished by the Subcontractor to DOE, under the provisions of a Patent Rights article in any subcontract hereunder may, in the discretion of the Contracting Officer, be furnished to the Contractor for transmission to DOE.
- (5) The Contractor shall promptly notify the Contracting Officer in writing upon the award of any subcontract containing a Patent Rights article by identifying the Subcontractor, the work to be performed under the subcontract, and the dates of award and estimated completion. Upon the request of the Contracting Officer the Contractor shall furnish him a copy of the subcontract.
- (6) The Contractor shall identify all Subject Inventions of the Subcontractor of which it acquires knowledge in the performance of this contract and shall notify the Patent Counsel (with notification by Patent Counsel to the Contracting Officer) promptly upon the identification of the inventions.

(7) It is understood that the Government is a third party beneficiary of any subcontract article granting rights to the Government in Subject Inventions, and the Contractor hereby assigns to the Government all rights that the Contractor would have to enforce the Subcontractor's obligations for the benefit of the Government with respect to Subject Inventions. The Contractor shall not be obligated to enforce the agreements of any Subcontractor hereunder relating to the obligations of the Subcontractor to the Government regarding Subject Inventions.

k. [Reserved]

l. Atomic Energy.

- (1) No claim for pecuniary award or compensation under the provisions of the Atomic Energy Act of 1954, as amended, shall be asserted by the Contractor or its employees with respect to any invention or discovery made or conceived in the course of or under this contract.
- (2) Except as otherwise authorized in writing by the Contracting Officer, the Contractor shall obtain patent agreements to effectuate the provisions of paragraph l.(1) of this article from all persons in its employ who perform any part of the work under this contract except nontechnical personnel, such as clerical employees and manual laborers.

m. Limitation of rights.

Nothing contained in this patent rights article shall be deemed to give the Government any rights with respect to any invention other than a Subject Invention except as set forth in the Patent Rights article of this contract with respect to Background Patents and the Facilities License.

n. Facilities License.

In addition to the rights of the parties with respect to inventions or discoveries conceived or first actually reduced to practice in the course of or under this contract, the Contractor agrees to and does hereby grant to the Government an irrevocable, nonexclusive paid-up license in and to any inventions or discoveries regardless of when conceived or actually reduced to practice or acquired by the Contractor, which are owned or controlled by the Contractor at any time through completion of this contract and which are incorporated or embodied in the construction of the facility or which are utilized in the operation of the facility or which cover articles, materials, or products manufactured at the facility (1) to practice or to have practiced by or for the Government at the facility, and (2) to transfer such license with the transfer of that facility. The acceptance or exercise by the Government of the aforesaid rights and license shall not prevent the Government at any time from contesting the enforceability, validity, or scope of, or title to, any rights or patents herein licensed.

Article 62. RIGHTS IN TECHNICAL DATA - FACILITY

a. Definitions.

- (1) "Technical Data" means recorded information regardless of form or characteristic, of a scientific or technical nature. It may, for example, document research, experimental, developmental, or demonstration, or engineering work, or be usable or used to define a design or process, or to procure, produce, support, maintain, or operate material. The data may be graphic or pictorial delineations in media such as drawings or photographs, text in specifications or related performance or design type documents or computer software (including computer programs, computer software data bases, and computer software documentation). Examples of technical data include research and engineering data, engineering drawings and associated lists, specifications, standards, process sheets, manuals, technical reports, catalog item identification, and related information. Technical data as used herein does not include financial reports, cost analyses, and other information incidental to contract administration.
- (2) "Proprietary Data" means technical data which embody trade secrets developed at private expense, such as design procedures or techniques, chemical composition of materials, or manufacturing methods, processes, or treatments, including minor modifications thereof, provided that such data:
  - (i) Are not generally known or available from other sources without obligation concerning their confidentiality,
  - (ii) Have not been made available by the owner to others without obligation concerning their confidentiality, and
  - (iii) Are not already available to the Government without obligation concerning their confidentiality.
- (3) "Contract Data" means technical data first produced in the performance of the contract, technical data which are specified to be delivered in the contract, technical data that may be called for under the "Additional Technical Data Requirements" article of the contract, if any, or technical data actually delivered in connection with the contract.
- (4) "Unlimited Rights" means rights to use, duplicate, or disclose technical data, in whole or in part, in any manner and for any purpose whatsoever, and to permit other to do so.

b. Allocation of rights.

- (1) Except as may be otherwise expressly provided or directed in writing by DOE Patent Counsel, the Government shall have:
  - (i) Ownership in all technical data first produced in the performance of the contract,
  - (ii) The right to inspect technical data first produced or specifically used in the performance of the contract at all reasonable times (for which inspection the proper facilities shall be afforded DOE by the Contractor and its subcontractors),
  - (iii) The right to have all technical data first produced or specifically used in the performance of the contract delivered to the Government or otherwise disposed of by the Contractor, either as the Contracting Officer may from time to time direct during the progress of the work or in any event as the Contracting Officer shall direct upon completion or termination of this contract, provided, that nothing contained in this paragraph shall require the Contractor to actually deliver any technical data the delivery of which is excused by this Rights in Technical Data article,
  - (iv) Unlimited rights in technical data specifically used in the performance of this contract except technical data pertaining to items of standard commercial design; the Contractor agrees to leave a copy of such technical data at the facility or plant to which such data relate, and to make available for access or to deliver to the Government such data upon request by the Contracting Officer; provided, that if such data are proprietary, the rights of the Government in such data shall be governed solely by the provisions of paragraph e. hereof "Limited rights in proprietary data",
  - (v) The right to remove, cancel, correct or ignore any marking not authorized by the terms of this contract on any technical data furnished hereunder if, in response to a written inquiry by DOE concerning the propriety of the markings, the Contractor fails to respond thereto within 60 days or fails to substantiate the propriety of the markings. In either case DOE will notify the Contractor of the action taken.
- (2) The Contractor shall have:
  - (1) The right to withhold its proprietary data, subject to the provisions of this article;

- (ii) The right to use for its private purposes, subject to patent, security or other provisions of this contract, technical data it first produces in the performance of this contract provided the data requirements of this contract have been met as of the date of the private use of such data. The Contractor agrees that to the extent it receives or is given access to proprietary data or other technical, business or financial data in the form of recorded information from DOE or a DOE contractor or subcontractor, the Contractor shall treat such data in accordance with any restrictive legend contained thereon, unless use is specifically authorized by prior written approval of the Contracting Officer.
- (3) Nothing contained in this "Rights in Technical Data" article shall imply a license to the Government under any patent or be construed as affecting the scope of any licenses or other rights otherwise granted to the Government under any patent.

c. Copyrighted material.

- (1) The Contractor shall not, without prior written authorization of the Contracting Officer, establish a claim to statutory copyright in any contract data first produced in the performance of the contract. To the extent such authorization is granted, the Government reserves for itself and others acting on its behalf a royalty-free, nonexclusive, irrevocable, world-wide license for Governmental purposes to publish, distribute, translate, duplicate, exhibit and perform any such data copyrighted by the Contractor.
- (2) The Contractor agrees not to include in the technical data delivered under the contract any material copyrighted by the Contractor and not to knowingly include any material copyrighted by others without first granting or obtaining at no cost a license therein for the benefit of the Government of the same scope as set forth in paragraph c.(1) above. If such royalty-free license is unavailable and the Contractor nevertheless determines that such copyrighted material must be included in the technical data to be delivered, rather than merely incorporated therein by reference, the Contractor shall request the written authorization of the Contracting Officer to include such material in the technical data prior to its delivery.

d. Subcontracting.

- (1) Unless otherwise directed by the Contracting Officer, the Contractor agrees to use in subcontracts having as a purpose the conduct of research, development or demonstration or in subcontracts for

supplies, the contract clause provisions in 41 CFR 9-9.202-3(c) and 41 CFR 9-9.2023(e)(2) in accordance with the policy and procedures at 41 CFR 9-9.202-1, 2 and 3.

- (2) It is the responsibility of the Contractor to obtain from its subcontractors' rights, on behalf of the Government, in technical data necessary to fulfill the Contractor's obligations to the Government with respect to such data. In the event of refusal by a subcontractor to accept a clause affording the Government rights in technical data as set forth above, the Contractor shall:
- (i) Promptly submit written notice to the Contracting Officer setting forth reasons for the subcontractor refusal and other pertinent information which may expedite disposition of the matter; and
  - (ii) Not proceed with the subcontract without the written authorization of the Contracting Officer.

Article 63. STOP WORK ORDER

- a. The Contracting Officer may at any time, by written order to the Contractor require the Contractor to stop all, or any part, of the work called for by this contract for a period of 90 days after the order is delivered to the Contractor, and for any further period to which the parties may agree. Any such order shall be specifically identified as a stop work order issued pursuant to this article. Upon receipt of such an order, the Contractor shall forthwith comply with its terms and take all reasonable steps to minimize the incurrence of costs allocable to the work covered by the order during the period of work stoppage. Within a period of 90 days after a stop work order is delivered to the Contractor, or within any extension of that period to which the parties shall have agreed, the Contracting Officer shall either:
- (1) cancel the stop work order, or
  - (2) terminate the work covered by such order as provided in the "Term and Termination" article of this contract.
- b. If a stop work order issued under this article is cancelled or the period of the order or any extension thereof expires, the Contractor shall resume work. An equitable adjustment shall be made in the delivery schedule, the estimated cost, the fee (if any), or a combination thereof, and in any other provisions of the contract that may be affected, and the contract shall be modified in writing accordingly, if:
- (1) the stop work order results in an increase in the time required for, or in the Contractor's cost properly allocable to, the performance of any part of this contract, and

- (2) the Contractor asserts a claim for such adjustments within 30 days after the end of the period of work stoppage; provided that, if Contracting Officer decides the facts justify such action, he may receive and act upon any such claim asserted at any time prior to final payment under this contract.
- c. If a stop work order is not cancelled and the work covered by such order is terminated for default, the reasonable costs resulting from the stop work order shall be allowed by equitable adjustment or otherwise.

Article 64. FEDERAL REPORTS ACT

- a. In the event that it subsequently becomes a contractual requirement to collect or record information calling either for answers to identical questions from 10 or more persons other than Federal employees, or information from Federal employees which is to be used for statistical compilations of general public interest, the Federal Reports Act shall apply to this contract. No plan, questionnaire, interview guide, or other similar device for collecting information (whether repetitive or single-time) may be used without first obtaining clearance from the Office of Management and Budget (OMB).
- b. The Contractor shall request the required OMB clearance from the Contracting Officer before expending any funds or making public contracts for the collection of data. The authority to expend funds and to proceed with the collection of data shall be in writing by the Contracting Officer. The Contractor must plan at least 90 days for OMB clearance. Excessive delay caused by the Government which arises out of causes beyond the control and without the fault or negligence of the Contractor will be considered in accordance with the article entitled "Excusable Delays", if such article is included in this contract and is applicable. If not, the period of performance may be extended pursuant to this article if approved by the Contracting Officer.

Article 65. PRINTING

The Contractor shall not engage in, nor subcontract for, any printing (as that term is defined in Title I of the U. S. Government Printing and Binding Regulations in effect on the effective date of this contract) in connection with the performance of work under this contract. Provided, however, that performance of a requirement under this contract involving the duplication of less than 5,000 copies of a single page, or no more than 25,000 units in the aggregate of multiple pages, will not be deemed to be printing. A unit is defined as one sheet, size 8 1/2 by 11 inches one side only, one color.

- (1) The term "printing" includes the following processes: composition, platemaking, presswork, binding, microform publishing, or the end items produced by such processes.
- (2) If fulfillment of the contract will necessitate reproduction in excess of the limits set forth above, the Contractor shall notify the Contracting Officer in writing and obtain the Contracting Officer's approval prior to acquiring on DOE's behalf production, acquisition, and dissemination of printed matter. Such printing must be obtained from the Government Printing Office (GPO), a contract source designated by GPO or a Joint Committee on Printing authorized federal printing plant.
- (3) Printing services not obtained in compliance with this guidance will result in the cost of such printing being disallowed.
- (4) The Contractor will include in each of his subcontracts hereunder a provision substantially the same as this article including this paragraph (4).

Article 66. FOREIGN TRAVEL

- a. Foreign travel, when charged directly, shall be subject to the prior approval of the Contracting Officer for each separate trip regardless of whether funds for such travel are contained in an approved budget. Foreign travel is defined as any travel outside of Canada and the United States and its territories and possessions.
- b. Request for approval shall be submitted at least 45 days prior to the planned departure date, be on a Request for Approval of Foreign Travel form, and when applicable, include a notification of proposed soviet-bloc travel.

Article 67. QUALITY ASSURANCE PROGRAM

The Contractor shall establish, implement, and maintain a Quality Assurance Program for Ames Laboratory, in accordance with DOE Order 5700.6A "Quality Assurance". Said program shall be submitted for review and approval of the Contracting Officer.

Article 68. INSPECTION

The Government, through any authorized representatives, has the right at all reasonable times, to inspect, or otherwise evaluate the work performed or being performed hereunder and the premises in which it is being performed. If any inspection, or evaluation is made by the Government on the premises of the Contractor or a subcontractor, the Contractor shall provide and shall

require his subcontractors to provide all reasonable facilities and assistance for the safety and convenience of the Government representatives in the performance of their duties. All inspections and evaluations shall be performed in such a manner as will not unduly delay the work.

Article 69. FOREIGN OWNERSHIP, CONTROL OR INFLUENCE OVER CONTRACTOR

a. For purposes of this clause, a foreign interest is defined as any of the following:

- (1) A foreign government or foreign government agency;
- (2) Any form of business enterprise organized under the laws of any country other than the United States or its possessions;
- (3) Any form of business enterprise organized or incorporated under the laws of the U.S. or a State or other jurisdiction within the U.S., which is owned, controlled, or influenced by a foreign government, agency, firm, corporation or person;
- (4) Any natural person who is not a U.S. citizen.

b. Foreign ownership, control, or influence (FOCI) will be considered to exist when the degree of ownership, control, or influence over a Contractor by a foreign interest is such that a reasonable basis exists for concluding that compromise of classified information, special nuclear material as defined in 10 CFR Part 710, or unclassified sensitive information covered by section 148 of the Atomic Energy Act may result.

c. For purposes of this clause, subcontractor means any subcontractor at any tier and the term Contracting Officer shall mean DOE Contracting Officer. When this clause is included in a subcontract, the term Contractor shall mean subcontractor.

d. The Contractor shall immediately provide the Contracting Officer written notice of any facts which are indicative of significant changes in the extent and nature of foreign ownership, control, or influence upon the Contractor. Further, notice of changes in ownership or control which are required to be reported to the Securities and Exchange Commission, the Federal Trade Commission, or the Department of Justice shall also be furnished concurrently to the Contracting Officer.

e. In those cases where a Contractor has changes involving foreign ownership, control, or influence the Contracting Officer must determine that the changes will not have a significant adverse effect on the public health

and safety or the national security. In making this determination, the Contracting Officer may consider proposals made by the Contractor to avoid or mitigate foreign influences.

- f. If the Contracting Officer at any time determines that the Contractor is, or is potentially, subject to foreign ownership, control, or influence, the Contractor shall comply with such instructions as the Contracting Officer shall provide in writing to safeguard any special nuclear material, classified information, and unclassified sensitive information.
- g. The Contractor agrees to insert terms that conform substantially to the language of this clause including this paragraph g. in all subcontracts under this contract that are expected to require access to special nuclear material; classified information; or unclassified information covered by section 148 of the Atomic Energy Act. Additionally, the Contractor shall require such subcontractors to submit the information required in 41 CFR 9-1.5203(c) prior to award of a subcontract. Information to be provided by subcontractor pursuant to this clause may be submitted directly to the Contracting Officer.
- h. Information submitted by the Contractor or any affected subcontractor as required pursuant to this clause shall be treated by DOE to the extent permitted by law, as business or financial information submitted in confidence to be used solely for purposes of evaluating foreign ownership, control, or influence.
- i. The requirements of this clause are in addition to the requirement that a Contractor obtain and retain the security clearances required by the contract. This clause shall not operate as a limitation on DOE's rights, including its rights to terminate this contract.

#### Article 70. OTHER CONTRACTS

The Government may undertake or award other contracts for additional work, and the Contractor shall fully cooperate with such other contractors and Government employees. The Contractor shall not commit or permit any act which will interfere with the performance of work by any other contractor or by Government employees.

#### Article 71. PRIORITIES AND ALLOCATIONS

This contract may be eligible for priorities and allocations support, as provided for by Section 101(c) of the Defense Production Act of 1950, as amended by the Energy Policy and Conservation Act of 1975, if its purpose is to maximize domestic energy supplies. Eligibility is dependent on an executive decision on a case basis with the decision being jointly made by the Departments of Commerce and Energy.

DOE Regulations regarding Materials Allocation and Priority Performance under Contracts or Orders to Maximize Domestic Energy Supplies can be found at Part 216 of Title 10 of the Code of Federal Regulations (10 CFR 216). Additional guidance is provided by DOE Publication PR-0042, entitled "Priorities and Allocations Support for Energy: Keeping Energy Programs on Schedule," dated August 1980, as may from time to time be revised. Copies may be obtained by written request to:

Department of Energy  
Technical Information Center (TIC)  
Post Office Box 62  
Oak Ridge, Tennessee 37830

Article 72. COMPETITION IN SUBCONTRACTING

The Contractor shall select subcontractors (including suppliers) on a competitive basis to the maximum practicable extent consistent with the objectives and requirements of the contract.

Article 73. CONTRACTS TO PERFORM NON-DOE ACTIVITIES

Subject to the prior approval of the Contracting Officer, the Contractor may enter into contracts for the Laboratory to perform non-DOE activities, which are related to the mission of the contract, involving the use of Laboratory equipment, facilities, or personnel. The request for such approval shall set forth in detail the nature of the outside work to be performed, the Laboratory equipment, facilities or personnel required, and the financial arrangements proposed to pay for the cost of such work. The Contracting Officer shall consider such a request, being guided, among other factors, by the current or future needs of DOE's programs for the equipment, facilities, or personnel to be utilized in the performance of such outside work. If the Contracting Officer approves such a request, the Contractor and DOE shall agree upon the terms and conditions which would apply to such work. This agreement may provide for receipt by the Government of all or part of such sum as represents the payment to be received by the Contractor for such outside work; provided, however, that DOE may contribute the use of certain equipment, facilities, or personnel to the Laboratory for the performance of such outside work if it determines that it desires to foster the activity in some measure. Except as otherwise approved by DOE, all articles of this contract shall be deemed to be applicable to the performance of such work. This article shall not be construed as amending or superseding the requirements of Article 4.

Article 74. ORDER OF PRECEDENCE

In the event of an inconsistency between provisions of this contract, the inconsistency shall be resolved by giving precedence as follows: (a) statement of work; (b) general provisions; (c) other provisions of the contract, whether incorporated by reference or otherwise; (d) Contractor's technical proposal, if incorporated in the contract by reference or otherwise.

Article 75. APPENDICES

Appendices A, B, C, D, E, and F are hereby attached to and made a part of this contract.

IN WITNESS WHEREOF, the parties have executed this document.

UNITED STATES OF AMERICA <sup>DEC 20 1983</sup> IOWA STATE UNIVERSITY OF SCIENCE & TECHNOLOGY  
BY: John J. Mahoney BY: Wayne R. Moore  
John J. Mahoney, Supervisor  
Acquisition and Assistance Staff  
Contracting Office  
Wayne R. Moore  
Vice President for Business and Finance  
(title)

Chicago Operations Office  
U. S. Department of Energy

I, Bernard O. Randol, certify that I am the  
Controller and University Secretary of  
the Iowa State University of Science and Technology, referred to as the  
"Contractor" herein; that Wayne R. Moore  
who signed this document on behalf of said Contractor was then  
Vice President for Business and Finance of  
said Contractor; that this document was duly signed for and on behalf of  
said Contractor by authority of its governing body and is within the scope  
of its legal powers.

IN WITNESS WHEREOF, I have hereunto affixed my hand and the seal of said  
Contractor.

†  
(SEAL)

Bernard O. Randol

ATTACHMENT I

Subcontract Clause Required Under Article 18., Contractor Procurement

ARTICLE I-C CERTIFIED COST OR PRICING DATA

- (a) (1) The Subcontractor shall require under the situations described in (2) below, unless exempted under the exceptions set forth in (3) below, each sub-subcontractor under this subcontract to submit cost or pricing data and to certify that, to the best of his knowledge and belief, such cost or pricing data are accurate, complete, and current.
- (2) Except as provided in (3) below, certified cost or pricing data shall be submitted prior to (i) the award of each sub-subcontract, the price of which is expected to exceed \$100,000, and (ii) the negotiation of the price of each change or modification to a sub-subcontract under this subcontract which involves aggregate increases and/or decreases in costs plus applicable profits expected to exceed \$100,000.
- (3) Certified cost or pricing data need not be furnished pursuant to this paragraph (a) where (i) the Subcontractor has not been required to furnish cost or pricing data; or (ii) the price or price adjustment is based on adequate price competition, established catalog or market prices of commercial items sold in substantial quantities to the general public, or the prices are set by law or regulation; and the Subcontractor states in writing the basis for applying this exception.
- (4) In submitting the cost or pricing data, the sub-subcontractor shall use the form of certificate set forth in paragraph (b) below and shall certify that the data are accurate, complete, and current. Such certificate and data (actual or identified, as provided in the certificate prescribed below) shall be submitted by sub-subcontractors to the next higher-tier sub-subcontractor, or the subcontractor, as applicable, for retention.
- (b) The certificates required by this article shall be in the form set forth below.

SUBCONTRACTOR'S CERTIFICATE OF CURRENT  
COST OR PRICING DATA

This is to certify that, to the best of my knowledge and belief, cost or pricing data submitted in writing, or specifically identified in writing if actual submission of the data is impracticable (see FPR 1-3.807-3(h)(2)), to the prime contractor in support of W-7405-Eng 82 are accurate, complete, and current as of December 30, 1983.  
(Date)

Firm Iowa State University  
Name Wayne R. Mican  
Title Vice President for Business and Finance

December 30, 1983  
(Date of Execution)

- (c) For purposes of verifying that certified cost or pricing data submitted in conjunction with the negotiation of this subcontract or any subcontract change or other modification which involves aggregate increases and/or decreases in costs plus applicable profits expected to exceed \$100,000 were accurate, complete, and current, DOE or any of its authorized representatives shall, until the expiration of three years from the date of final payment under this subcontract, have the right to examine those books, records, documents, papers, and other supporting data which involve transactions related to this subcontract or which will permit adequate evaluation of the cost or pricing data submitted, along with the computations and projections used therein.
- (d) Whenever the price of any change or other modification to this subcontract involves aggregate increases and/or decreases in costs plus applicable profits expected to exceed \$100,000, the Subcontractor agrees to furnish the Contractor certified cost or pricing data, using the certificate set forth in paragraph (b) above, unless the price is based on adequate price competition, established catalog or market prices of commercial items sold in substantial quantities to the general public, or prices set by law or regulation.
- (e) The requirement for submission of certified cost or pricing data with respect to any change or other modification does not apply to any sub-subcontract change or other modification, at any tier, where the subcontract is firm, fixed-price or fixed-price with escalation unless such change or other modification results from a change or other modification to the subcontract, nor does it apply to a sub-subcontract change or modification, at any tier, where the subcontract is not firm fixed-price or fixed-price with escalation, unless the price for such change or other modification becomes reimbursable under the subcontract.
- (f) The Subcontractor agrees to insert paragraph (c) without change and the substance of paragraphs (a), (b), (d), (e), and (f) of this article in each sub-subcontract hereunder in excess of \$100,000 and in each sub-subcontract of \$100,000 or less at the time of making a change or other modification thereto which involves aggregate increases and/or decreases in costs plus applicable profits expected to exceed \$100,000.
- (g) If the prime contractor determines that any price, including profit or fee, negotiated in connection with this subcontract or any cost reimbursable under this subcontract was increased by any significant sums because the subcontractor, or any sub-subcontractor pursuant to this article or any sub-subcontract article herein required, furnished incomplete or inaccurate cost or pricing data or data not current as certified in the Subcontractor's certificate of current cost or pricing data, then such price or cost shall be reduced accordingly and the contract shall be modified in writing to reflect such reduction.

NOTE:

Since the subcontract is subject to reduction under this clause by reason of defective cost or pricing data submitted in connection with certain sub-subcontracts, it is expected that the Subcontractor may wish to include a clause in each such sub-subcontract requiring the sub-subcontractor to appropriately indemnify the subcontractor. It is also expected that any sub-subcontractor subject to such indemnification will generally require substantially similar indemnification for defective cost or pricing data required to be submitted by his lower-tier sub-subcontractors.

ATTACHMENT II

Patent Rights (Small Business Firms or Nonprofit Organizations -  
- March 1982) - referenced in paragraph j., Subcontracts, of  
Article 61., PATENT RIGHTS

## PATENT RIGHTS

(Small Business Firms or Nonprofit Organizations) March 1982

### (a) Definitions

- (1) "Invention" means any invention or discovery which is or may be patentable or otherwise protectable under Title 35 of the United States Code (USC).
- (2) "Subject Invention" means any invention of the Contractor conceived or first actually reduced to practice in the performance of work under this contract.
- (3) "Practical Application" means to manufacture in the case of a composition or product, to practice in the case of a process or method, or to operate in the case of a machine or system; and, in each case, under such conditions as to establish that the invention is utilized and that its benefits are, to the extent permitted by law or Government regulations, available to the public on reasonable terms.
- (4) "Made" when used in relation to any invention means the conception or first actual reduction to practice of such invention.
- (5) "Small Business Firm" means a small business concern as defined at Section 2 of Public Law 85-536 (15 USC 632) and implementing regulations of the Administrator of the Small Business Administration. For the purpose of this clause, the size standard for small business concerns involved in Government procurement, contained in 13 CFR 121.3-8, and in subcontracting, contained in 13 CFR 121.3-12, will be used.
- (6) "Nonprofit Organization" means universities or other institution of higher education or an organization of the type described in section 501(c)(3) of the Internal Revenue Code of 1954 (26 U.S.C. 501(c)) and exempt from taxation under section 501(a) of the Internal Revenue Code (26 U.S.C. 501(a)) or any nonprofit scientific or educational organization qualified under a state nonprofit organization statute.
- (7) "Patent Counsel" means the Department of Energy (DOE) patent counsel assisting the DOE contracting activity.

### (b) Allocation of Principal Rights

The Contractor may retain the entire right, title, and interest throughout the world to each subject invention subject to the provisions of this clause and 35 USC 203. With respect to any subject invention in which the Contractor retains title, the Federal Government shall have a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States the subject invention throughout the world.

(c) Invention Disclosure, Election of Title and Filing of Patent Applications by Contractor

(1) The Contractor will disclose each subject invention to the Patent Counsel (with notification by Patent Counsel to the Contracting Officer) within two months after the inventor discloses it in writing to contractor personnel responsible for the Administration of patent matters. The disclosure to the Patent Counsel shall be in the form of a written report and shall identify the contract under which the invention was made and the inventor(s). It shall be sufficiently complete in technical detail to convey a clear understanding to the extent known at the time of the disclosure of the nature, purpose, operation, and the physical, chemical, biological or electrical characteristics of the invention. The disclosure shall also identify any publication, on sale or public use of the invention and whether a manuscript describing the invention has been submitted for publication and, if so whether it has been accepted for publication at the time of disclosure. In addition, after disclosure to the Patent Counsel, the Contractor will promptly notify the Patent Counsel of the acceptance of any manuscript describing the invention or of any on sale or public use planned by the Contractor.

(2) The Contractor will elect in writing whether or not to retain title to any such invention by notifying the Patent Counsel within twelve months of disclosure to the Contractor; provided that in any case where publication, on sale or public use has initiated the one year statutory period wherein valid patent protection can still be obtained in the United States, the period for election of title terminates sixty days prior to the end of the statutory period.

(3) The Contractor will file its initial patent application on an elected invention within two years after election or, if earlier, prior to the end of any statutory period wherein valid patent protection can be obtained in the United States after a publication, on sale, or public use. The contractor will file patent applications in additional countries within either ten months of the corresponding initial patent application or six months from the date permission is granted by the Commissioner of Patents and Trademarks to file foreign patent applications where such filing has been prohibited by a Secrecy Order.

(4) Requests for extension of the time for disclosure to the Patent Counsel, election and filing, may, at the discretion of the Patent Counsel be granted.

(d) Conditions When The Government May Obtain Title

(1) The Contractor will convey to DOE, upon written request, title to any subject invention:

(i). If the Contractor fails to disclose or elect the subject invention within the times specified in (c) above, or elects not to retain title.

(ii) In those countries in which the Contractor fails to file patent applications within the times specified in (c) above; provided however, that if the Contractor has filed a patent application in a country after the times specified in (c) above but prior to its receipt of the written request of the Patent Counsel, the Contractor shall continue to retain title in that country; or

(iii) In any country in which the Contractor decides not to continue the prosecution of any application for, to pay the maintenance fees on, or defend in a reexamination or opposition proceeding on, a patent on a subject invention.

(e) Minimum Rights to Contractor

(1) The Contractor will retain a nonexclusive, royalty-free license throughout the world in each subject invention to which the Government obtains title except if the Contractor fails to disclose the subject invention within the times specified in (c) above. The Contractor's license extends to its domestic subsidiaries and affiliates, if any, within the corporate structure of which the Contractor is a part and includes the right to grant sublicenses of the same scope to the extent the Contractor was legally obligated to do so at the time the contract was awarded. The license is transferable only with the approval of DOE except when transferred to the successor of that part of the Contractor's business to which the invention pertains.

(2) The Contractor's domestic license may be revoked or modified by DOE to the extent necessary to achieve expeditious practical application of the subject invention pursuant to an application for an exclusive license submitted in accordance with 10 CFR 781. This license will not be revoked in that field of use or the geographical areas in which the Contractor has achieved practical application and continues to make the benefits of the invention reasonably accessible to the public. The license in any foreign country may be revoked or modified at the discretion of DOE to the extent the Contractor, its licensees, or its domestic subsidiaries or affiliates have failed to achieve practical application in that foreign country.

(3) Before revocation or modification of the license, DOE will furnish the Contractor a written notice of its intention to revoke or modify the license, and the Contractor will be allowed thirty days (or such other time as may be authorized by DOE for good cause shown by the Contractor) after the notice to show cause why the license should not be revoked or modified. The Contractor has the right to appeal, in accordance with 10 CFR 781, any decision concerning the revocation or modification of its license.

(f) Contractor Action to Protect Government's Interest

(1) The Contractor agrees to execute or to have executed and promptly deliver to the Patent Counsel all instruments necessary to:

(i) Establish or confirm the rights the Government has throughout the world in those subject inventions for which the Contractor retains title, and

(ii) Convey title to DOE when requested under (d) above and to enable the Government to obtain patent protection throughout the world in that subject invention.

(2) The Contractor agrees to require, by written agreement, its employees, other than clerical and nontechnical employees, to disclose promptly in writing to personnel identified as responsible for the administration of patent matters and in a format suggested by the Contractor each subject invention made under this contract in order that the Contractor can comply with the disclosure provisions of (c) above and to execute all papers necessary to file patent applications on subject inventions. The disclosure format should require, as a minimum, the information requested by (c) (1) above. The Contractor shall instruct such employees through the employee agreements or suitable educational programs on the importance of reporting inventions in sufficient time to permit the filing of patent applications prior to United States or foreign statutory bars.

(3) The Contractor will notify the Patent Counsel of any decision not to continue prosecution of a patent application, pay maintenance fees, or defend in a reexamination or opposition proceeding on a patent, in any country, not less than thirty days before the expiration of the response period required by the relevant patent office.

(4) The Contractor agrees to include, within the specification of any United States patent application and any patent issuing thereon covering a subject invention, the following statement, "This invention was made with Government support under (identify the contract) awarded by the Department of Energy. The Government has certain rights in this invention."

(5) The Contractor agrees to:

(i) Provide a report prior to the close-out of the contract listing all subject inventions;

(ii) Provide notification of all subcontracts under this contract for experimental, developmental, demonstration, or research work, the identity of the patent rights clause therein, and copy of each subcontract upon request;

(iii) Provide promptly a copy of the patent application, filing date, and serial number; patent number and issue date for any subject invention in any country in which the Contractor has applied for a patent.

(g) Subcontracts

(1) The Contractor will include this clause, suitably modified to identify the parties, in all subcontracts, regardless of tier, for

experimental, developmental or research work to be performed by a small business firm or a domestic nonprofit organization. The Subcontractor will retain all rights provided for the Contractor in this clause, and the Contractor will not, as part of the consideration for awarding the subcontract, obtain rights in the Subcontractor's subject inventions.

(2) The Contractor will include in all other subcontracts, regardless of tier, for experimental, developmental, demonstration, or research work the patent rights clause required by 41 CFR 9-9.107-5(a) or 41 CFR 9-9.107-6 as appropriate, modified to identify the parties.

(3) In the case of a subcontract at any tier, DOE, the Subcontractor and the Contractor agree that the mutual obligations of the parties created by this clause constitute a contract between the Subcontractor and DOE with respect to those matters covered by this clause.

(h) Reporting on Utilization of Subject Inventions

The Contractor agrees to submit on request periodic reports no more frequently than annually on the utilization of a subject invention or on efforts at obtaining such utilization that are being made by the Contractor or its licensees or assignees. Such reports shall include information regarding the status of development, date of first commercial sale or use, gross royalties received by the Contractor, and such other data and information as DOE may reasonably specify. The Contractor also agrees to provide additional reports as may be requested by DOE in connection with any march-in proceeding undertaken by DOE in accordance with paragraph (j) of this clause. To the extent data or information supplied under this section is considered by the Contractor, its licensee or assignee to be privileged and confidential and is so marked, DOE agrees that, to the extent permitted by 35 USC 202(c)(5), it will not disclose such information to persons outside the Government.

(i) Preference for United States Industry

Notwithstanding any other provision of this clause, the Contractor agrees that neither it nor any assignee will grant to any person the exclusive right to use or sell any subject invention in the United States unless such person agrees that any products embodying the subject invention or produced through the use of the subject invention will be manufactured substantially in the United States. However, in individual cases, the requirement for such an agreement may be waived by DOE upon a showing by the Contractor or its assignee that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture substantially in the United States or that under the circumstances domestic manufacture is not commercially feasible.

(j) March-in Rights

The Contractor agrees that with respect to any subject invention in which it has acquired title, DOE has the right in accordance with the procedures in OMB Circular A-124 to require the Contractor, an assignee

or exclusive licensee of a subject invention to grant a nonexclusive, partially exclusive, or exclusive license in any field of use to a responsible applicant or applicants, upon terms that are reasonable under the circumstances, and if the Contractor, assignee, or exclusive licensee refuses such a request, DOE has the right to grant such a license itself if DOE determines that:

(1) Such action is necessary because the Contractor or assignee has not taken, or is not expected to take within a reasonable time, effective steps to achieve practical application of the subject invention in such field of use;

(2) Such action is necessary to alleviate health or safety needs which are not reasonably satisfied by the Contractor, assignee, or their licensees;

(3) Such action is necessary to meet requirements for public use specified by federal regulations and such requirements are not reasonably satisfied by the Contractor, assignee, or licensees; or

(4) Such action is necessary because the agreement required by paragraph (i) of this clause has not been obtained or waived or because a licensee of the exclusive right to use or sell any subject invention in the United States is in breach of such agreement.

(k) Special Provisions for Contracts with Nonprofit Organizations

If the Contractor is a non-profit organization, it agrees that:

(1) Rights to a subject invention in the United States may not be assigned without the approval of DOE, except where such assignment is made to an organization which has as one of its primary functions the management of inventions and which is not, itself, engaged in or does not hold a substantial interest in other organizations engaged in the manufacture or sale of products or the use of processes that might utilize the invention or be in competition with emodiments of the invention (provided that such assignee will be subject to the same provisions as the Contractor);

(2) The Contractor may not grant exclusive licenses under United States patents or patent applications in subject inventions to persons other than small business firms for a period in excess of the earlier of:

(i) five years from first commercial sale or use of the invention; or

(ii) eight years from the date of the exclusive license excepting that time before regulatory agencies necessary to obtain premarket clearance, unless on a case-by-case basis, DOE approves a longer exclusive license. If exclusive field of use licenses are granted, commercial sale or use in one field of use will not be deemed commercial sale or use as to other fields of use, and a first commercial sale or use with respect to a product of the

invention will not be deemed to end the exclusive period to different subsequent products covered by the invention.

(3) The Contractor will share any royalties collected on a subject invention with the inventor; and

(4) The balance of any royalties or income earned by the Contractor with respect to subject inventions, after payment of expenses (including payments to inventors) incidental to the administration of subject inventions, will be utilized for the support of scientific research or education.

(1) Communications

The DOE central point of contact for communications or matters relating to this clause is the Patent Counsel.

SMALL BUSINESS AND SMALL DISADVANTAGED  
BUSINESS SUBCONTRACTING PLAN

DATE: August 19, 1983

CONTRACTOR: AMES LABORATORY

ADDRESS: IOWA STATE UNIVERSITY

SOLICITATION OR CONTRACT NUMBER: W-7405, eng-82

ITEM/SERVICE: Research Laboratory

The following, together with any attachments, is hereby submitted as a Subcontracting Plan to satisfy the applicable requirements of Public Law 95-507 as implemented by OFPP Policy Letter 80-2.

1. (a) The following percentage goals (expressed in terms of a percentage of total planned subcontracting dollars) are applicable to the contract cited above or to the contract awarded under the solicitation cited.
  - (i) Small Business concerns: 55 % of total planned subcontracting dollars under this contract will go to subcontractors who are small business concerns.
  - (ii) Small Disadvantaged Business Concerns: 2 % of total planned subcontracting dollars under this contract will go to subcontractors who are small business concerns owned and controlled by socially and economically disadvantaged individuals. This percentage is included in the percentage shown under 1. (a) (i), above, as a subset.
- (b) The following dollar values correspond to the percentage goals shown in (a) above.
  - (i) Total dollars planned to be subcontracted to small business concerns: \$2,475,000.
  - (ii) Total dollars planned to be subcontracted to small disadvantaged business concerns: \$ 90,000. This dollar amount is included in the amount shown under 1. (b) (i), above, as a subset.
- (c) The total estimated dollar value of all planned subcontracting (to all types of business concerns) under this contract is \$ 4,500,000.

- (d) The following principal products and/or services will be subcontracted under this contract, and the distribution among small (\*) and small disadvantaged (\*\*) business concerns is as follows:

Chemicals \*&\*\*; Electronic Supplies & Equipment \*&\*\*;

Office Supplies \*&\*\*; Custodial Supplies \*&\*\*; Clothing \*&\*\*;

Vacuum Supplies \*&\*\*; Computer Supplies & Equipment \*&\*\*;  
Electrical Supplies & Equipment \*&\*\*.

- (e) The following method was used in developing subcontract goals (i.e., Statement explaining how the product and service areas to be subcontracted were established, how the areas to be subcontracted to small and small disadvantaged business concerns were determined, and how small and small disadvantaged business concerns' capabilities were determined, to include identification of source lists utilized in making those determinations).

Ames Laboratory used (1) Minority Suppliers; (2) Minority

Business Enterprises; (3) Trv Us (4) Chicago Minority

Directory (5) PASS-Women Owned (6) Greater Des Moines and

Iowa Directory (7) Our own computer listing

(8) Minneapolis Minority Paper (9) Source lists as

submitted.

- (f) Indirect and overhead costs (check one below):

-have been

-have not been

included in the goals specified in 1(a) and 1(b).

- (g) If "have been" is checked, explain the method used in determining the proportionate share of indirect and overhead cost to be allocated as subcontracts to small business concerns and small disadvantaged business concerns.

2. The following individual will administer the subcontracting program:

Name: Sylvester A. Merritt

Address & Telephone: 865-1780

Title: Head, Procurement & Property Management

This individual's specific duties, as they relate to the firm's subcontracting program, are as follows:

General overall responsibility for this company's Small Business Program, the development, preparation and execution of individual subcontracting plans and for monitoring performance relative to contractual subcontracting requirements contained in this plan, including but not limited to:

- (a) Developing and maintaining bidders lists of small and small disadvantaged business concerns from all possible sources.
- (b) Ensuring that procurement packages are structured to permit small and small disadvantaged business concerns to participate to the maximum extent possible, within State Purchasing laws and regulations.
- (c) Assuring inclusion of small and SDB concerns in all solicitations for products or services which they are capable of providing.
- (d) Reviewing solicitations to remove statements, clauses, etc., which may tend to restrict or prohibit SB and SDB participation, where possible.
- (e) Ensuring that the bid proposal review board documents its reasons for not selecting low bids submitted by small and small disadvantaged business concerns.
- (f) Ensuring the establishment and maintenance of records of solicitations and subcontract award activity.
- (g) Attending or arranging for attendance of company counsellors, at Business Opportunity Workshops, Minority Business Enterprise Seminars, Trade Fairs, etc.
- (h) Conducting or arranging for conduct of motivational training for purchasing personnel pursuant to the intent of P.L. 95-507.
- (i) Monitoring attainment of proposed goals.
- (j) Preparing and submitting periodic subcontracting reports required.

(K) ADDITIONS TO (OR DELETIONS FROM) THE LISTINGS SPECIFIED ABOVE ARE AS FOLLOWS:

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3. The following efforts will be taken to assure that small and small disadvantaged business concerns will have an equitable opportunity to compete for subcontract:

(a) Outreach efforts will be made as follows:

- (i) Contacts with minority and small business trade associations
- (ii) Contacts with business development organizations
- (iii) Attendance at small and minority business procurement conferences and trade fairs
- (iv) Sources will be requested from SBA's PASS system, where funds are available to do so.

(b) The following internal efforts will be made to guide and encourage buyers:

- (i) Workshops, seminars and training programs will be conducted
- (ii) Activities will be monitored to evaluate compliance with this subcontracting plan.

(c) Small and small disadvantaged business concern source lists, guides and other data identifying small and small disadvantaged business concerns will be maintained and utilized by buyers in soliciting subcontracts.

(d) Additions to (or deletions from) the above listed efforts are as follows:

Close relationships with other GOCO's and

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ISU for additional minority sources

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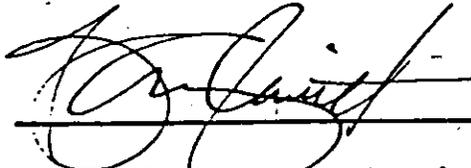
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4. The bidder (contractor) agrees that the clause entitled Utilization of Small Business Concerns and Small Business Concerns Owned and Controlled by Socially and Economically Disadvantaged Individuals will be included in all subcontracts which offer further subcontracting opportunities, and all subcontractors except small business concerns who receive subcontracts in excess of \$500,000 will be required to adopt and comply with a subcontracting plan similar to this one. Such plans will be reviewed by comparing them with the provisions of Public Law 95-507, and assuring that all minimum requirements of an acceptable subcontracting plan have been satisfied. The acceptability of percentage goals shall be determined on a case-by-case basis depending on the supplies/services involved, the availability of potential small and small disadvantaged subcontractors, and prior experience. Once approved and implemented, plans will be monitored through the submission of periodic reports, and/or, as time and availability of funds permit, periodic visits to subcontractors facilities to review applicable records and subcontracting program progress.
5. The bidder (contractor) agrees to submit such periodic reports and cooperate in any studies or surveys as may be required by the contracting agency or the Small Business Administration in order to determine the extent of compliance by the bidder with the subcontracting plan and with the clause entitled Utilization of Small Business Concerns and Small Business Concerns Owned and Controlled by Socially and Economically Disadvantaged Individuals, contained in the contract.
6. The bidder (contractor) agrees that he will maintain at least the following types of records to document compliance with this subcontracting plan:
  - (a) Small and Small disadvantaged business concern source lists, guides and other data identifying SB/SDBC vendors.
  - (b) Organizations contacted for small and disadvantaged business sources.
  - (c) On a contract-by-contract basis, records on all subcontract solicitations over \$100,000, indicating on each solicitation (1) whether small business concerns were solicited, and if not, why not; (2) whether small disadvantaged business concerns were solicited, and if not, why not; and (3) reasons for the failure of solicited small or small disadvantaged business concerns to receive the subcontract award.
  - (d) Records to support other outreach efforts: Contacts with Minority and Small Business Trade Associations, etc. Attendance at small and minority business procurement conferences and trade fairs.
  - (e) Records to support internal activities to guide and encourage buyers: Workshops, Seminars, training programs, etc. Monitoring activities to evaluate compliance.
  - (f) On a contract-by-contract basis, records to support subcontract award data to include name and address of subcontractor.

(g) Records to be maintained in addition to the above are as follows.

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\_\_\_\_\_  
\_\_\_\_\_

Signed:

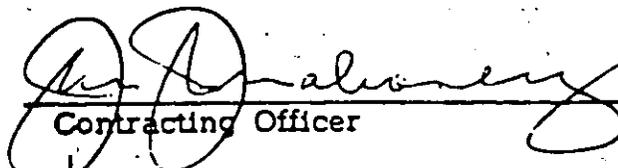


Typed Name: Sylvester A. Merritt

Title: Head, Procurement & Property Management

Date: August 19, 1983

Plan Accepted By:

  
Contracting Officer

Date: 10/24/83

\*EFFECTIVE DATE FOR SUBCONTRACTING PLAN: Bidder or offeror to

indicate budget period to which this plan applies: 10 - 1 - 83  
(Month, Day, Year)

to 9 - 30 - 84  
(Month, Day, Year)

APPENDIX A

EMPLOYEES' SPECIAL BENEFIT PLAN

1. a. The Contractor shall, with the approval of DOE, have the right to make payments in accordance with section 2. below to or on account of employees of the Contractor whenever the Contractor shall determine, and such determination has been approved by DOE, that the employee has died or become disabled as a result of exposure to certain special hazards peculiar to atomic energy work, to the extent hereinafter provided.
  - b. As used herein, the term "special hazards" shall mean those hazards connected with the work under Contract No. W-7405-Eng-82 as defined from time to time by mutual agreement in writing between DOE and the Contractor.
  - c. As used herein, the term "disability" shall mean death, injury or disease resulting from exposure to a special hazard in the course of work under the contract. It shall not apply to exposures covered by the occupational injury insurance policy previously issued by the Indemnity Insurance Company of North America, which policy covers certain exposures prior to June 15, 1949.
  - d. As used herein, the term "employee" shall mean any person (including borrowed personnel and experts and consultants, with or without fee) employed or utilized by the Contractor in the performance of work under the contract. It is recognized by both DOE and the Contractor that this Employees' Benefit Plan is not intended to apply to exposures to part-time employees who are, at the time of exposure, performing non-DOE work or studies on equipment not owned by DOE and this point shall be made clear in any announcement or notice to employees of the provisions of this plan.
2. a. Payments, not to exceed the amounts stated below for any one accident or occupational disease, may be made by the Contractor to or on account of an employee, subject to the approval of DOE as to the payment and the amount thereof, for the following:
  1. Death or for a disability resulting in death.....\$12,000.00
  11. Permanent Disability. For any permanent total or partial disability whenever the Contractor shall determine, and such determination shall have been approved by DOE, that such permanent disability has substantially impaired the earning or physical capacity of the employee disabled. DOE may require such waiting period prior to payment as in its judgment may be required to ascertain the extent and permanency of disability.....\$18,500.00

- iii. Temporary Disability. For any temporary total or partial disability whenever the Contractor shall determine, and such determination shall have been approved by DOE, that such temporary disability has impaired the earnings of the employee disabled .....\$15,000.00
  - iv. Medical, Surgical, and Hospital Services. For unusual medical expenses, including related diagnostic services, in connection with any temporary or permanent disability sustained by an employee. Unless otherwise authorized or approved by DOE, payments for medical treatment and care hereunder shall be at reasonable rates not to exceed those prevailing in the locality for comparable medical treatment and care.....\$ 7,500.00
- b. The benefits under this plan shall be payable only for disability which is not compensable under the Iowa Workmen's Compensation Laws. In no event shall total payments hereunder to any person for any one accident or occupational disease, exceed Eighteen Thousand Five Hundred and No/100 Dollars (\$18,500.00) or such other amount as would be payable under the Iowa Workmen's Compensation Laws for such disability if such laws were otherwise applicable whichever is the lesser.
  - c. DOE may require as a condition of payment a release in form and substance satisfactory to DOE of all other claims by the employee or his heirs against the Contractor or the Government on account of the death or disability for which payment is made.
- 3.
- a. Payments pursuant to this Plan may be made by the Contractor during the term of the contract and during a period of ten years (or such longer period as DOE may approve) following the termination or expiration of work under the contract.
  - b. Payments made by the Contractor pursuant to this Plan, together with the Contractor's costs of investigating and handling all cases of asserted disability by employees (whether or not payment is made) shall be allowable from such available funds as DOE may designate.
  - c. Upon termination of the contract, whenever disability shall have been asserted by an employee, the Contractor may, with the approval of DOE, establish from such available funds as DOE may then designate a reserve not to exceed Eighteen Thousand Five Hundred and No/100 Dollars (\$18,500.00) with respect to such employee, for payments under this Plan on account of such disability. Upon the expiration of ten years (or such longer period as DOE may approve) following the expiration or termination of the contract, or at

such earlier time as the amount of the payment to the employee shall be agreed upon by DOE and the Contractor, the unexpended balance of any such reserve shall be remitted to the Government or applied in reduction of the cost of the work under the contract, as DOE may direct.

- d. Whenever DOE and the Contractor shall agree that adequate insurance coverage for disabilities is available, and DOE shall determine that it is in the best interests of the Government to obtain such insurance, the Contractor will at the request of DOE obtain such insurance and DOE will reimburse the Contractor for all premium costs in connection therewith. Such insurance shall, to the extent agreed upon by DOE and the Contractor, be in lieu of the provisions for payments otherwise specified in this Plan.
4. Nothing contained herein shall be construed to grant, vest, or allow any right to be given, to any employee or other third party, or to the legal representative of any of them, insofar as payments by the Contractor or the Government under this Employees' Special Benefit Plan are concerned.

Modification No. M069  
Supplemental Agreement to  
Contract No. W-7405-Eng-82

APPENDIX B

SPECIAL BANK ACCOUNT AGREEMENT

Agreement effective the first day of January, 1984, between the UNITED STATES OF AMERICA, (hereinafter referred to as the "Government"), represented herein by the U. S. DEPARTMENT OF ENERGY (hereinafter referred to as "DOE"), IOWA STATE UNIVERSITY OF SCIENCE AND TECHNOLOGY, of Ames, Iowa, an educational institution owned wholly by the State of Iowa (hereinafter referred to as the "Contractor"), and the NORWEST BANK DES MOINES, N.A. (hereinafter referred to as the "Bank"), a banking corporation under the laws of Iowa, located at Des Moines, Iowa.

RECITALS

- (a) Under date of January 1, 1984, DOE and the Contractor entered into Contract No. W-7405-Eng-82, Modification No. M069, providing for the making of advances of Government funds to the Contractor. Copy of such advance provisions has been furnished to the Bank.
- (b) DOE requires that amounts advanced to the Contractor under said contract or supplemental agreements be deposited in a Special Bank Account or accounts with a bank designated by the Treasury Department as a depository and financial agent of the Government (Section 10 of the Act of June 11, 1942, 56 Stat. 356; 12 U.S.C. 265), separate from any of the Contractor's general or other funds; and, the Bank being such a bank, the parties are agreeable to so depositing said amounts with the bank.
- (c) This Special Bank Account shall be designated "Iowa State University of Science and Technology, W-7405-Eng-82, United States Department of Energy Special Bank Account".

COVENANTS

In consideration of the foregoing, and for other good and valuable considerations, it is agreed that:

- (1) The Government shall have title to the credit balance in said account to secure the return of all advances made to the Contractor, which title shall be superior to any lien or claim of the Bank or others with respect to such account.
- (2) The Bank will be bound by the provisions of said contract relating to the deposit and withdrawal of funds in the above Special Bank Account, but shall not be responsible for the application of funds properly withdrawn from said account. After receipt by the Bank of written directions from

the Contracting Officer, or from the duly authorized representative of the Contracting Officer, or the Manager of the Chicago Operations Office of DOE, the Bank shall act thereon and shall under no liability to any party hereto for any action taken in accordance with the said written directions.

- (3) The Government, or its authorized representatives shall have access to the books and records maintained by the Bank with respect to such Special Bank Account at all reasonable times and for all reasonable purposes, including, without limitation, the inspection of copying of such books and records and any and all memoranda, checks, correspondence or documents appertaining thereto. Such books and records shall be preserved by the Bank for a period of three (3) years after the closing of the Special Bank Account.
- (4) In the event of the service of any writ of attachment, levy of execution, or commencement of garnishment proceedings with respect to the Special Bank Account, the Bank will promptly notify the Manager, Chicago Operations Office, United States Department of Energy.

IN WITNESS WHEREOF, the parties hereto have executed this document.

UNITED STATES OF AMERICA

BY:

John J. Mahoney  
John J. Mahoney, Supervisor  
Acquisition and Assistance Unit  
Contracting Officer  
(title)

DEC 23 1983

Chicago Operations Office  
U. S. Department of Energy

IOWA STATE UNIVERSITY OF SCIENCE AND  
TECHNOLOGY

BY:

Wayne R. Moore  
Vice President for Business and Finance  
(title)

HARVEST BANK OF IOWA, N.A., FORMERLY KNOWN AS  
THE IOWA-DES MOINES NATIONAL BANK

BY:

Wayne R. Moore  
VICE PRESIDENT  
(title)

APPENDIX C

GOVERNMENT PROPERTY ON LEASED LAND

1. If DOE and the Contractor should agree on the construction with funds provided by DOE and on property owned by the Contractor of any permanent building or buildings for use in performing work under this contract, the Contractor will grant to the Government a ninety-nine (99) year lease or leases on the property on which the building or buildings will be situated together with a reasonable surrounding area, such lease or leases to be covered by separate agreement between the Contractor and Government, and to be subject to the approval of the Executive Council of the State of Iowa. The Government and its agents and representatives, and such others as DOE may approve shall have the right of free ingress and egress to and from all parts of leased property for the duration of the lease thereto.
2. During the term of this contract, as it may be extended, or any other period during which any Government-owned building is being used by the Government or by others under arrangement with the Government, the Contractor, subject to the approval of DOE, shall make available all necessary utilities for the proper operations of said Government-owned building and shall maintain, or arrange to maintain, said utilities (including extensions from Contractor-owned utility distribution facilities that are connected to the Government-owned building), the Government-owned building and the equipment and facilities therein and appurtenances thereof, and the leased property in good repair, as directed by DOE. For purposes of this appendix, all extensions, which are financed by Government funds under this contract and whether or not situated on property leased from the Contractor, from Contractor-owned or other utility distribution facilities that are connected to any Government-owned building shall be considered part of the Government-owned building.
3. Upon expiration of the term of this contract, as same may have been extended, or upon prior termination, the Government may continue to use any Government-owned building for the performance of work by Government employees or by others; provided, however, that said building will not be put to a use by the Government or by others authorized by the Government which creates or constitutes a nuisance or prejudices the operation of state educational facilities adjacent thereto.
4. Upon receipt of written notice by DOE that any Government-owned building is no longer required by the Government, the Contractor shall maintain same in a standby status, as directed by DOE until such time as said Government-owned building is purchased by the Contractor, leased or sold to a third party, or removed by the Government, or until such time as the Contractor is notified in writing by DOE that such maintenance in

a standby status is no longer required. The Contractor shall be reimbursed for all direct costs incurred under this section, subject to the availability of appropriations for the purpose. Said maintenance by the Contractor in standby status shall be subject to availability of appropriations to the Contractor.

5. Upon receipt of written notice from DOE that any Government-owned building is no longer required by the Government, the Contractor shall have, for a period of not less than one hundred and eighty calendar days from the date of receipt thereof, the exclusive option to purchase all the right, title, and interest in and to said building for such reasonable amount as may be mutually agreed upon by the parties hereto. In the event the Contractor elects to exercise said option, it agrees to serve written notice of its intent upon DOE within the 180-day period, or such other time as may be mutually agreed upon, and the parties shall proceed to conclude negotiations with reasonable promptness. In the event the Contractor fails to exercise its option as provided for herein, the Government may otherwise dispose of the building by sale, lease, removal, or otherwise; provided, however, that the sale or lease of the building by the Government to a third party will be subject to approval of the Contractor insofar as the intended use of the building by the prospective purchaser or lessee is concerned.
6. The Government-owned buildings on Contractor-owned property are presently covered by Land Lease Agreements Nos. DE-RL02-76CH00142, DE-RL02-76CH00144, DE-RL02-76CH00145, DE-RL02-76CH00146, DE-RL02-76CH00148, and DE-RL02-76CH00149.

APPENDIX D

USE OF SPACE IN CONTRACTOR-OWNED BUILDINGS

1. In accordance with subparagraph a.(2) of Article 17., Property, the Contractor shall provide space in Contractor-owned buildings in connection with the work under this contract. The Contractor shall be paid on a fiscal-year basis by DOE an amount of \$2.69 per square foot for actual space used, (hereinafter sometimes referred to as the "space rental charge") which amount shall be in lieu of rental for such use and occupancy. This rate is based upon the Contractor's projection of space which will be utilized by Ames Laboratory during the fiscal year ending September 30, 1984, and the rate reflects the acquisition cost of such space less any portion of such cost borne or donated by the Federal Government extended at the rate of 2% in accordance with section J.9 of Office of Management and Budget Circular A-21 as incorporated by FPR 1-15.303, in effect on the effective date of this modification.
2. The rate set forth in section 1. above includes Physical Plant Services normally provided by the Contractor with respect to the use and occupancy of said space. Said rate does not include (i) utilities, or (ii) repairs, renovations or alterations, which DOE may effectuate at its own cost and expense, without obligation to restore or rehabilitate the premises. Substantial renovations or structural alterations shall require the Contractor's prior approval.
3. In connection with the use and occupancy of said space, the Contractor shall provide the ordinary, normal utilities available in such space, namely, heat, electricity, sewerage, steam and water. For the fiscal year ending September 30, 1984, the Contractor shall be paid for said utilities an amount based on the rate of \$3.35 per square foot of actual space used. For each Government fiscal year subsequent to September 30, 1984, the parties hereto shall agree in writing, without need for formal modification to this contract, as to the rate of the utilities charge for the pertinent fiscal year. By July 1, 1984 and each anniversary date thereafter, the Contractor shall submit to DOE its proposal for the utilities charge rate which it proposes to charge for the pertinent ensuing fiscal year.
4. The Contractor represents that the space rental charge provided in section 1. and the utilities charge provided in section 3. are, respectively, no higher than the rates it charges to other self-supporting departments of the Contractor and agrees that the utilities charge rates to be established pursuant to section 3. for fiscal years subsequent to September 30, 1984 shall be no higher than the rates it will charge other self-supporting departments of the Contractor.

5. Space area shall be computed as the actual net area used directly in connection with the work under the contract. Space shall be measured in the clear, excluding space occupied by walls and partitions. Only space used for a specific and direct purpose in connection with the work under the contract shall be included in the actual net area computation, thereby excluding from the computation certain available space used for corridors, washrooms, building equipment areas and similar areas except when such space is for specific and exclusive use in connection with work under the contract. In those instances where space will be occupied for use by the Contractor in carrying on its own activities as well as in connection with the work under the contract, the space used in connection with the work under the contract shall be prorated on the basis of estimated time usage of space for work under the contract.
6. Prior to each fiscal year during the term of this contract, the Contractor shall submit to DOE for its approval a proposal of the estimated total square feet which the Contractor contemplates will be used in carrying on the work under the contract during the ensuing fiscal year. Upon DOE approval of the Contractor's proposal, provisional reimbursement, based upon the rates provided for in sections 1. and 3., shall be made monthly. Following the close of the Government fiscal year, the Contractor shall submit its claim for reimbursement under this appendix in accordance with section 7., and prompt adjustment shall be made for any difference between the amount paid to the Contractor on a provisional basis and the actual amount due under this appendix.
7. Claims for reimbursement under the appendix will be presented promptly after the close of the Government's fiscal year and shall be itemized to show actual space used by room or other identifiable location, net usable area of room, percentage of Contractor work use and time, actual net area used for the contract work, the use of the space, and the name of the Group Leader directing the particular phase of the work under the contract in each specific location. In addition, the Laboratory Director shall certify (i) to the accuracy of prorata distribution of space, (ii) that the space for which payment is claimed under this appendix was required for performance of the work under the contract, and (iii) that such space was actually used directly in connection with the work under the contract. The Contractor shall maintain adequate records to support any claims submitted for payment under this appendix.
8. The space presently occupied by the Government in Contractor-owned buildings is that space described in the Contractor's proposal entitled "Anticipated Space Requirements for FY 84" submitted by letter dated November 4, 1983 from Duane Michelsen, Facilities Manager.

APPENDIX E

STORM SEWER SERVICE FOR METALS PROCESS DEVELOPMENT PLANT

The Metals Process Development Plant continues to require storm sewer drainage.

It is agreed between the Contractor and DOE that storm sewer drainage for the Metals Process Development Plant shall be provided in accordance with the following terms and conditions:

1. The Contractor shall furnish to DOE storm sewer service upon payment to the Contractor by DOE of the sum of Six Thousand Three Hundred Six and No/100 Dollars (\$6,306.00), which amount has been paid to the Contractor and the Contractor hereby acknowledges receipt thereof.
2. This service shall commence at a tie-in point in a sewer-line manhole approximately twenty-five feet due west of Manhole Number 3 for the Metals Process Development Plant, as shown on Drawing No. M-1. The Contractor shall place one length of twelve-inch pipe in the tie-in manhole to accommodate a twelve-inch pipe to serve area drains in the parking area.
3. The Contractor shall provide continuous storm sewer line usage so that there shall be an unobstructed full flow cross-sectional area of 113.10 square inches at a minimum of .52% slope without the benefit of any external pressure.
4. The Contractor shall maintain the sewers, including the removal of stoppages, cleaning of deposits, and any other effort required to maintain the sewer line in an operating condition, and shall provide the flowage described in section 3. above. All maintenance and service of the sewer line beyond the point of tie-in shall be done by the Contractor without any contribution by DOE, other than the amount specified in section 1. hereof.
5. This agreement shall extend for the full term of Lease No. DA 25-066 between the State Board of Regents of the State of Iowa, successor to the State Board of Education of the State of Iowa, and the United States of America.

Modification No. M069  
Supplemental Agreement to  
Contract No. W-7405-Eng-82

APPENDIX F

ACCESS FOR APPLIED SCIENCE CENTER

The Applied Science Center (formerly the Research Reactor Facility) requires an access for the passage of heavy vehicles, equipment, etc., to and from said facility. An access road, and grade crossing with adequate automatic gate and signal protection will continue to be provided by the Contractor for use of DOE in accordance with the following terms and conditions:

1. The Contractor shall continue to provide a safe, convenient and adequate access for heavy vehicles and equipment, etc., to the Applied Science Center and shall, at all times, continue to maintain such access in satisfactory condition including drainage in consideration of the payment by DOE of the sum of Twenty-Three Thousand Three Hundred Eighty and No/100 Dollars (\$23,380.00). Such amount has been paid to the Contractor and the Contractor hereby acknowledges receipt thereof.
2. The Contractor will continue to provide adequate automatic signal crossing with gates activated by approaching and passing trains including appropriate signal devices to protect and warn all traffic using said access.
3. The access road commences at the intersection of Scholl and Ontario Roads in the City of Ames and extends in a northeasterly direction of approximately one thousand nine hundred (1,900) feet to the southeast corner of the area which DOE has leased for the Applied Science Center.