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ENVIRONMENTAL ASSESSMENT

CANCER INSTITUTE OF NEW JERSEY
UNIVERSITY OF MEDICINE AND DENTISTRY OF NEW JERSEY
NEW BRUNSWICK, NEW JERSEY

Prepared By
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1.0 DOCUMENT SUMMARY

1.1 Description

The Department of Energy (DOE) proposes to authorize the University of Medicine and Dentistry of New Jersey (UMDNJ) to proceed with the design, construction and equipping of the proposed Clinical Treatment and Research Facility of the Cancer Institute of New Jersey (CINJ) on the New Brunswick campus.

The purpose of the proposed project would be to provide a facility to integrate clinical outpatient cancer treatment with basic and clinical research, expediting the application of new discoveries in cancer treatment. The proposed facility is needed to develop effective treatments and deliver innovative care, so that New Jersey residents would have convenient access to the newest advances in the prevention, diagnosis, and investigational treatment of cancer Reference (Ref 1).

1.2 Alternatives

Under the no action alternative, DOE would not provide funding for construction of the proposed project. However, the University has indicated it intends to go forward with the proposed project with or without the DOE funding. Therefore, if the proposed project proceeds with only state funding, the environmental impacts of this alternative would be the same as for the proposed action.

Alternative, on-campus sites considered by the University were not feasible, from the standpoint of campus planning.

1.3 Affected Environment

The proposed campus site is not part of wetland, floodplain, coastal zone, or prime farmland. The proposed campus site is a fully developed urban area; it has a history of prior residential and commercial uses, and it has no unique historical, cultural, archeological, or natural features.

The 76,860 square feet site contains eighteen structures ranging in age from 40 to 110 years, including fifteen single-unit houses, adjoined houses, unattached garages and sheds, three noncommercial support structures, and some vacant lots used primarily for parking.

1.4 Construction Impacts

No historic properties have been identified within the project impact zone. There are no known listed or proposed State or Federal threatened or endangered species or critical habitats associated with the proposed site. There are no floodplain and/or wetlands affected by the proposed site and there are no national forests, parks, trails or prime farmlands at the proposed site. The groundwater in this area is not part of a sole source aquifer. A Soil Erosion and Sediment Control Plan would be developed prior to construction. The asbestos containing materials would be removed prior to the demolition and properly disposed. As a result of excavation approximately 3,000 cubic yards of fractured red shale and fifteen tanks (seven underground) would be removed and properly disposed. General construction waste generated in the process of demolition would be partially reused/recycled and the residual transported to a licensed landfill. Air quality impacts would be low-land intermittent and transient impacts. The contractor would be required to maintain the noise limit (by the City of New Brunswick) except for limited periods in which a variance was obtained. The actual noise level experienced by receptor persons in the nearest buildings would be reduced by building walls and windows. The maximum number of workers on site is not likely to exceed 75 at any one time, and it is assumed that about 25 daily automobile trips would result from the work force traveling to the proposed site. Given the small number of residents affected (approximately 30 units) by the relocation and their socioeconomic diversity, the proposed action would not have an adverse human health or environmental effect on minority or low income populations.

1.5 Operational Impacts

The proposed Institute would use radioactive and biological materials, as well as a number of chemical hazardous materials including toxic, flammable, and corrosive laboratory solvents and reagents. All such uses would be consistent with applicable federal, state, and local laws and regulations with respect to hazardous material and waste management, and emissions to the environment.

Storage, handling, laboratory use, and disposal of hazardous materials used at the proposed new facility would be monitored and controlled by the University's Department of Environmental and Occupational Health and Safety Services following applicable state and federal regulations as supplemented by University manuals. The risk of accidents at the proposed Institute would be similar to that in other existing University laboratories that use hazardous materials. The University has had no reportable fires or other accidents involving hazardous materials its laboratories over the past five years.

1.6 Relationship to Other National Environmental Policy Act (NEPA) Reviews and Land Use Plans and Policies

The proposed project, which is not related to other actions requiring NEPA review, would conform with all applicable federal, state, and local land use plans and policies.

2.0 PURPOSE AND NEED

The Congress has expressed its intent that DOE provide funds to assist particular universities and facilities. The DOE's purpose in authorizing the University to proceed with this project would be to carry out this congressional intent (described in Section 3.1) and to contribute to its own mission by supporting highly technical research programs such as those which would be conducted at the UMDNJ.

The facility would provide for the needed integration of new and existing clinical outpatient cancer treatment with basic and clinical research, to expedite the application of new discoveries in cancer treatment. The facility would provide New Jersey residents with convenient access to the newest advances in the prevention, diagnosis, and investigational treatment of cancer (Ref. 1). The clinical portion would include multidisciplinary adult and pediatric oncology services, and it would contain adult clinical cancer modules with a chemotherapy infusion area. The research portion would include laboratories to be used for molecular, cell biology and pharmaceutical research.

3.0 DESCRIPTION OF ALTERNATIVES INCLUDING THE PROPOSED ACTION

3.1 Description of the Proposed Action

The DOE proposes to authorize the UMDNJ to proceed with the detailed design, construction and equipping of the proposed Cancer Institute of New Jersey Clinical Treatment and Research Facility. House Report 102-866 accompanying the FY 1993 Energy and Water Appropriations Act indicated that \$10 million had been included in DOE's fiscal year 1993 appropriation to assist the UMDNJ with construction of the proposed facility. A grant was executed with the University on June 4, 1993, and grant funds are available to the University for the limited purpose of performing preliminary studies, including analysis necessary to conduct this environmental assessment. However, under the terms of the grant, the grantee may not initiate construction or take any other action which would affect the environment or limit alternatives until the DOE NEPA process has been completed and DOE has determined that such action should proceed.

3.2 Project Description

3.2.1 Construction Activities

The proposed project would involve the construction of a 75,000-square-foot building that would contain administrative, basic research, and clinical facilities. Proposed plans include 50,000 square feet of finished space and 25,000 feet of shell space for future laboratory expansion. The facility would be located as shown on the proposed site location maps (Figures 2-1 and 2-2). The building is shown in relation to the landscaping plan on Figure 2-3 (Ref. 1).

The proposed construction would require two years and would involve demolition of existing residential structures, excavation, grading, backfilling, concrete footings, steel beam and masonry construction, and interior installations (See sections 4.0 and 5.0 for more details.)

The proposed building would be built on a sloping area. There would be two occupied levels (one clinical and one laboratory); one shelled level (future laboratory); and mechanical space in a small basement area and in a penthouse. The building would stand two-and-a-half stories above Somerset Street, and occupy a footprint of 27,660 square feet (Ref. 5).

3.2.2 Operation Activities

Approximately 25,000 square feet of the finished space would be dedicated to clinical and patient-related services to accommodate approximately 20,000 patient visits per year at full capacity. The clinical portion would be designed for multi-disciplinary adult and pediatric oncology services, and it would contain adult clinical cancer modules with a chemotherapy infusion area. The pediatric cancer module would house a dedicated chemotherapy infusion/play area. In addition to the treatment areas, space for data management, protocol nurse managers, and multi-disciplinary consulting and conference rooms would be provided, along with some adjacent administrative space (Ref. 1).

The remaining finished space, approximately 25,000 square feet, would be dedicated to research. This area of the proposed facility would contain ten separate laboratories and faculty offices. The laboratories would be used for molecular and cell biology research and pharmaceutical research (Ref. 1).

Project 2-1
 Site Location, Road Map
 and vicinity of the site and vicinity of New Jersey
 Cancer Institute of New Jersey Facility
 New Brunswick, NJ

Figure 2-2
Proposed Site Location Tax Map
Cancer Institute of New Jersey Facility
New Brunswick, NJ

Figure 2-3
 Proposed Site Plan
 University of Medicine and Dentistry of New Jersey
 Cancer Institute of New Jersey Facility
 New Brunswick, NJ

SITE PLAN

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3.3 The No-Action Alternative

Under the no-action alternative, the DOE would not authorize the University of Medicine and Dentistry of New Jersey to proceed with construction or any other action which would affect the environment or limit alternatives.

The University intends to go forward with the proposed project without the DOE funding; therefore, the environmental impacts of this alternative would be the same as for the proposed action, although possibly delayed while the University obtains alternative funding.

3.4 Site Alternatives

In early planning (which preceded the DOE grant) for the project, the UMDNJ considered other sites and locations for the proposed facility but found none that were feasible for further planning and design (Buxbaum Memo of May 11, 1993, Attachment to (Ref. 5). The site needs to be adjacent to the Robert Wood Johnson University Hospital and the New Brunswick University Campus, and near St. Peter's Medical Center. Proximity to these facilities was important in site selection because of the need for auxiliary support of oncology and emergency units. The importance of access to the full resources of affiliated institutions and the availability of direct interaction with researchers based at the University's New Brunswick campus were also an important consideration.

No alternative sites met these needs. Therefore, they were not considered further.

One other important reason for the proposed site is the property on which the building would be placed is owned by the Robert Wood Johnson University Hospital. The Hospital, a major affiliate, is providing the site as its contribution to the project (Ref. 1, 5).

4.0 THE AFFECTED ENVIRONMENT

4.1 Site Description

The proposed site is a fully developed urban area in downtown New Brunswick characterized by residential, commercial and institutional uses. The proposed site has been zoned as a "Downtown Hospital Overlay District (D-HI)." It is 0.5 miles from the Amtrack New Brunswick station (Ref. 1).

The 76,860-square-foot (1.764 acres) site has a legacy of residential and commercial uses involving underground storage tanks and asbestos-containing materials. The proposed site contains eighteen structures ranging in age from 40 to 110 years. The buildings include fifteen single-unit houses, adjoined houses, unattached garages and sheds, three noncommercial support structures, and some vacant lots used primarily for parking.

Several of the single-unit homes are currently vacant. The proposed site also contains blacktop and concrete pavement driveways, walkways, and sidewalks. The proposed site has several trees, but very few or no lawns, gardens, or other aesthetic amenities (Ref. 1, 5).

4.2 Air Quality

The site is within the Northern New Jersey area which is non-attainment for all criteria pollutants. It is also within the Northeast Transport Region for Ozone (Ref 5). The proposed site would not affect any site designated Class I for air quality control (per EPA's Clean Air Act Amendments, 1991) as the nearest such area, Brigantine National Wilderness Area, is 64 miles south of the site (Ref. 1, 5).

4.3 Surface/Groundwater Quality

The proposed site is approximately 0.75 miles from the Raritan River, which is part of a State Park managed by the Delaware and Raritan Canal Commission. The proposed site for CINJ facility is not located within the river's floodplain.

4.4 Soil

The overlying surface soils are comprised of silt derived from the decomposition of the underlying bedrock (Ref 5). It is not known at the present time whether any of the soil at the site is contaminated with petroleum products from certain underground tanks as this will be tested following demolition of the existing structures.

5.0 ENVIRONMENTAL CONSEQUENCES OF THE PROPOSED ACTION

5.1 Construction Impacts

5.1.1 Sensitive Resources

5.1.1.1 Historic/Archaeological

Two structures that were thought possibly to be of historic concern are located on the proposed site, and would be removed as part of the project. The structure at 166 Somerset Street has been cited by the New Jersey Office of Historic Preservation as a prime example of early 20th century architecture found uniquely in New Brunswick. The structure at 150 Somerset Street was noted on a Black History Survey List as a temporary residence of William Whipper, a mid-19th century Black abolitionist (Ref. 1). However, the State Historic Preservation Office, following a careful study which explicitly included the above structures, has concluded that these structures are not eligible for the National Register of Historic Places, and that "no historic properties have been identified within the

project impact zone." The University has not received any objections to the removal of these properties, nor any requests to consider relocating the Somerset Street structures (Ref. 2, 5).

5.1.1.2 Federal/State-Listed or Proposed Protected Species or Critical Habitats

There are no known listed or proposed State or Federal threatened or endangered species or critical habitats associated with the proposed site (Ref. 3).

5.1.1.3 Floodplain/Wetlands

There are no floodplain and/or wetlands affected by the proposed site according to the New Jersey Department of Environmental Protection and Energy (NJDEPE), which is responsible for making this type of assessment (Ref. 6). The proposed site is not located within the Raritan River's floodplain.

5.1.1.4 National Forests, Parks, and Trails

There are no national forests, parks, or trails at the proposed site or in its vicinity (Ref. 1). Brigantine National Wilderness area is 64 miles from the site.

5.1.1.5 Prime Farmland

There are no prime farmlands at or in the vicinity of the proposed site (Ref. 1).

5.1.1.6 Special Sources of Water

The proposed site is not a special source of water. Groundwater in this part of New Brunswick is known to occur at depths below the levels that would be excavated. During construction, water that may accumulate on the site would be discharged to the municipal combined storm/sanitary system and would not penetrate to groundwater. The groundwater in this area is not part of a sole source aquifer (Ref. 1).

5.1.2 Erosion/Run-Off

Erosion at the proposed site would be controlled in accordance with NJSA 4:24-39 et seq. Standards for Erosion and Sediment Control in New Jersey. A Soil Erosion and Sediment Control Plan would be developed prior to construction and would require erosion control measures such as slope control, through the use of plastic sheeting and bales of hay (Ref. 1).

5.1.3 Demolition/Construction Waste Disposal

5.1.3.1 Asbestos

A visual survey of the various structures on the subject site has been performed in order to identify suspected asbestos-containing materials (ACM). The survey did not address potential underground structures that may be associated with the buildings on the site, and the survey did not include collection of bulk samples to confirm asbestos content. The following potential ACM were observed:

- aircell pipe insulation and associated mastics;
- asphaltic roofing and siding shingles;
- block pipe insulation;
- ceiling tiles;
- fiber cement (transite) siding shingles; and
- asphaltic roofing felts and flashing.

Based on the inventory of suspected ACM, it is estimated that approximately 1,000 linear feet of pipe insulation and 15,000 square feet of floor tile are potentially asbestos-containing. These materials would be removed prior to demolition. A report would be filed with EPA Region II at least 10 days prior to ACM removal. Removal would proceed pursuant to EPA and OSHA requirements governing personal protective equipment and protection of the public. In addition, New Jersey State Department of Labor regulations pertaining to the permitting of workers (NJAC 8:60) and Department of Health regulations regarding the licensing of asbestos contractors (NJAC 12:120) would be followed. After removal, ACM would be double-bagged in appropriately labeled 10 ml plastic bags to be transported and disposed of at a NJDEPE approved landfill in accordance with NJDEPE regulations (NJAC 7:26) (Ref. 1, 5, 7).

5.1.3.2 Excavation Waste/Disturbance of Contaminated Soil

Excavation of the proposed site would result in the removal of approximately 3,000 cubic yards of fractured red shale in which certain storage tanks have been buried. It is possible that this shale may be contaminated with previously stored petroleum products, such as No. 2 fuel oil. If tests prove the material to be uncontaminated, it would be used as fill on another construction site or disposed of at a local area accepting fill of this nature.

If, however, tests indicate contamination, the shale would probably be classified as nonhazardous for transport and disposal purposes. Non-hazardous waste is waste containing petroleum hydrocarbon concentrations of less than 30,000 parts per million. The quantity of contaminated soil (if any) cannot be estimated until the tanks are removed (Ref. 1, 5). In this case, a waste-flow exemption approval would need to be obtained from the NJDEPE Division of Solid Waste Management before shipping the soil to an out-of-

state asphalt recycling facility such as Soil Safe in Delaware for use as aggregate in asphalt production (Ref. 5).

Fifteen tanks, seven underground, used for petroleum product storage would be removed. The tanks would be cleaned prior to removal pursuant to state-regulated protocols. The cleaning process would generate approximately 3,000 gallons of residual liquids which would be vacuum-removed and transported by licensed hauler to a NJDEPE-approved facility. Upon removal (using a backhoe), the tanks would be inspected for leakage and then rendered unusable. The tanks and piping would be sold as scrap metal; documentation of disposal would be obtained. The soil beneath each tank would be tested and any soil characterized as petroleum-contaminated would be appropriately manifested and transported to a NJDEPE-licensed and approved facility.

5.1.3.3 Conventional Waste

Approximately 8,700 cubic yards of general construction waste would be generated in the process of demolition; this waste would consist of wood, asphalt shingles/siding, plaster/wallboard, concrete, brick glass, wire, and miscellaneous structural metal. Approximately 6,000 cubic yards of construction waste would be generated; this waste would consist of similar materials as well as some cardboard and plastic packaging materials. Efforts would be made to reuse or recycle these wastes, and the residual would be transported by a licensed waste hauler to the Middlesex County (Edgeboro) Landfill in Edison (Ref. 1).

5.1.4 Air Quality Impacts (Dust, Equipment Emissions)

Air quality impacts of the proposed construction would be low-level intermittent and transient impacts routinely resulting from the coming and going of trucks, on-site machinery excavation, and dust-created renovation. Dust created by these activities would be controlled by conventional water spraying (Ref. 1).

5.1.5 Noise

Noise common to building construction would result from truck traffic, on-site diesel machinery, natural gas driven machinery, electric generators, motors, pumps, and compressors. Typical noise levels during construction of commercial buildings which integrate the effect of all noise sources range from 77 decibel (dB) to 89 dB, depending on the phase of construction. These noise levels, measured at the building site, dissipate with distance by approximately 2/3 at 400 feet, or approximately 55 to 60 dB (Ref. 4). Construction activity would be limited to daytime operations.

Criteria for average acceptable outdoor sound levels range from 55 dB for residential land use to 70 dB for office buildings and outdoor recreation areas (Ref. 4). (These are day-night integrated values.) The City of New Brunswick permits 65 dB. Accordingly, the contractor would be required to maintain this limit except for limited periods in which a variance was obtained.

Construction and attendant noise would be limited to the period between 7 A.M. to 7 P.M. Monday through Friday, with most activity taking place between 8 A.M. and 4:30 P.M. (Ref. 1). Reference to Figure 2-3 shows nearest receptor locations at varying distances at the St. Peter's High School (approx. 150 ft.) and at the Robert Wood Johnson University Hospital (approx. 75 ft.). Construction noise would occur only during daytime hours and principally during the first four to six months of the projected two-year construction period. The actual noise level experienced by receptor persons in those buildings would be reduced by building walls and windows.

5.1.6 Transportation, Traffic, Parking, and Relocation

5.1.6.1 Traffic and Parking

The level of traffic generated by the proposed construction would be about 15 to 25 delivery and construction vehicle roundtrips per day. Construction worker access to the site would include a local commuter rail station, urban buses, and automobiles. The maximum number of workers on site during demolition and construction is not likely to exceed 75 at any one time, and it is assumed that about 25 daily automobile trips would result from the work force traveling to the proposed site. Existing on-street parking spaces would not be available to the public during the construction and some of this space would be available for construction worker parking (Refs. 1, 5, 7). (See Section 5.2.12 for long term parking impacts.)

5.1.6.2 Relocation

Employees and functions of the Emergency Medical Services Department (EMS) and the Home Health Care Department presently located in three separate buildings on the site would be relocated. The University is presently evaluating various properties suitable for relocating these hospital employees and their office functions. Some 6,000 square feet of space to house 85 full-time equivalent employees would be required.

Relocation of families or individuals (approximately 30 units) displaced by this proposed project would be carried out by the Municipal Relocation Office. These parties would be moved to comparable public or private housing. Some residences are occupied by Hospital employees, including foreign nurses, for whom the Hospital subsidizes housing for the first 12 months of employment. The remainder of the residences are occupied by private tenants who were either in the buildings when the Hospital purchased them or who have

been brought in during the last 10 years as buildings were acquired and tenancies were needed. This last group of private tenants may need the assistance of the Municipal Relocation Officer.

The cost to relocate the EMS and Home Health Care Departments from the three buildings now on Somerset Street is estimated at \$460,000. This cost includes the purchase of a new building, relocation of the furnishings and other office systems, and an allowance for renovations that might be required. An expenditure of approximately \$60,000 is estimated for relocation of non-hospital tenants, and an additional \$30,000 would be required for hospital-based tenants who would be relocated to other buildings. (Refs. 1, 5, 14). Given the small number of residents affected and their socioeconomic diversity, and the fact that the relocation itself would not have an adverse socioeconomic effect, the proposed action would not have a disproportionately high or adverse human health or environmental effect on minority or low income populations.

5.2 Operation Impacts

5.2.1 Domestic Waste

Domestic solid waste resulting from the proposed action would be approximately 30 tons per year, representing an increase of less than two percent in the University's total waste load. This waste would be transported by licensed contractor to the Middlesex County (Edgeboro) Landfill in Edison (Ref. 1).

5.2.2 Sanitary Waste

Sanitary waste would be approximately 28,000 gallons per day of combined sanitary-storm runoff discharged to an existing combined sewer which is directed to the Middlesex County treatment plant. The sanitary system is operated by the City of New Brunswick Department of Public Works Sewer Utility. The County has plans to separate storm water from sanitary discharge in the future, and the proposed project design would accommodate this future change. The proposed discharge would be approximately 2.5% of the University's discharge, and it would likely not represent a net increase over prior discharges from the site (Ref. 5).

5.2.3 Hazardous Waste

5.2.3.1 Gross Quantities

The proposed project would be a strictly molecular biology-type facility. The projected specific hazardous wastes and their quantities have been estimated using extrapolation from quantities of waste generated by existing CINJ cancer researchers and applying these numbers to activity levels which would be provided by the 10 principle investigators who would work at the proposed facility. Accordingly, annual waste quantities would be approximately as follows:

Table 5-1. Approximate Annual Waste Quantities.

Type Of Waste	Quantity
ethidium bromide	20 liters
isoamyl	20 liters
phenol	40 liters
formaldehyde	30 liters
chloroform	20 liters
alcohol	40 liters
nitric acid	20 liters
butanol	20 liters
methanol	60 liters
used pump oil	75 lbs.

The above wastes include reactive and toxic forms. UMDNJ is a licensed large-quantity generator pursuant to the requirements of the NJDEPE. The New Brunswick campus produces approximately 3 to 5 tons of chemical hazardous waste per year, about 10% of the University's total. The proposed project wastes would be merged with that of the New Brunswick campus, adding less than 1% to the campus total (Ref. 7).

5.2.3.2 Waste Management

Hazardous waste currently is managed as described in the University's manual (Ref. 8). Methods of storage and handling vary according to the nature of the waste and point of origin in accordance with the University's hazardous waste management program (Ref. 8). The specific forms of treatment are decided by the waste management contractor for the various streams with which the project waste would be merged. The University's waste management facilities have sufficient capacity for additional wastes generated by the proposed CINJ facility.

5.2.4 Biological and Medical Waste

Biological and medical waste from the proposed facility would be approximately 8 tons/year, representing an approximately 3% increase over the University's current total of approximately 270 tons per year. These wastes would be merged with the existing University medical waste and managed in accordance with state regulations (NJAC 7:26-3A) (Ref. 1). The University has specific procedures for management of such wastes. Under a master contract with the New Jersey Hospital Association, an approved and licensed vendor removes medical wastes from all generating sites for transport to off-site licensed incinerators in South Carolina, Virginia, and other states (Ref. 5).

5.2.5 Radioactive and Mixed Hazardous/Radioactive Waste

5.2.5.1 Gross Quantities

The University has an NRC permit (#2915188-01) regulating the use of radionuclides. Clinical and laboratory operations at the University produce 29,000 pounds of radioactive waste per year. The wastes are general laboratory waste consisting of dry items such as gloves, paper towels and pipette tips as well as "biological" items such as animal carcasses, excised human tissue and recombinant DNA and RNA extractions from human and animal cells. Approximately 11,000 pounds of this waste consists of liquid scintillation vials disposed of separately as mixed waste. The proposed facility would increase these estimates by about 5% or 1,450 pounds (Refs. 1, 5, 7).

The following table shows the expected half-life of the radionuclides in the waste stream, the average quantity in the facility in millicuries (mCi), the annual quantity in mCi, and residual radioactivity at the time of disposal.

Table 5-2 Characteristics Of Radioisotopes Used At The Facility.

Radionuclide	Half-Life	Average in Facility mCi	Annual Use mCi	Residual mCi at Disposal
Carbon 14	5,730 years	0.0193	0.5	0.0193
Hydrogen 3	12.3 years	0.9616	25.0	0.9613
Iodine 125	60.2 days	0.4808	12.5	0.4699
Phosphorous 32	14.3 days	9.6154	250.0	8.7272
Sulfur 35	87.5 days	1.9231	50.0	1.8929

The average in the facility means the maximum amount actually at the facility on a given day. Annual use means the total radionuclide amount utilized in clinical and experimental procedures. Residual at time of disposal means the amount which is collected by a waste disposal contractor for off-site disposal.

5.2.5.2 Waste Management

Radioactive and radioactive mixed waste generated by the proposed new CINJ facility would be merged with the University waste stream. The University has a contract with Rutgers Environmental Health and Safety (REHS) for packaging, collection and subsequent management of the radioactive and radioactive mixed wastes generated by the proposed new CINJ facility.

Liquid scintillation vials are immediately shipped to Quadrex Inc. in Gainesville, Florida for incineration (Ref. 15). All other radioactive wastes with a half life of less than 90 days are retained for decay in the Environmental Services Building at Rutgers University (which has been designated and designed for this purpose) prior to final disposal. Wastes other than liquid scintillation vials containing radioactive materials with a half life exceeding 90 days are stored in the Environmental Services Annex of the Environmental Services Building prior to final disposal. The biological items would be pre-treated by a bleach bath or exposed to UV light before leaving the proposed new CINJ facility for incineration at a NESHAPS-licensed facility. [See section 5.2.4]

All University waste management operations have adequate capacity for the additional waste generated by the proposed CINJ facility.

5.2.5.3 Health Effects

As shown on Table 5-2, residual activity levels at the time of disposal would be minimal. Doses to waste management personnel would be less than worker exposures described in section 5.2.6, and well below regulatory limits. When incinerated at contractor sites remote from the University, the wastes would constitute a small percentage of all radioactive wastes treated, and would be subject to NESHAPS limits which protect the health of the public.

5.2.6 Worker Exposures

Radionuclides would be used in the diagnosis and treatment of disease, and in animal research. Several special controlled facilities involving use of radionuclides would be established at various locations in the building, according to the specific medical and research needs being served. Use of radioactive nuclide material would be in accordance with Nuclear Regulatory Commission regulation 10 CFR 35, "Medical Use of By-Product Material," and the University's NRC license. Training would be provided according to 10 CFR 35.39 under the supervision of the Radiation Safety Officer as part of the program of radiation, health and safety at the campus described in section 5.2.5. The University Radiation Program, Policies and Procedures prescribe practices to maintain exposure "As Low as Reasonably Achievable" (ALARA) (Ref. 1).

5.2.6.1 History of Radiation Exposure

Under a contract with the University, Rutgers University provides a radiation, health, and safety program for the Piscataway and New Brunswick campuses. Exposure of personnel to radioactivity comes under the supervision of this program and of the Rutgers Environmental Health and Safety Department, Radiation Safety Officer.

Historically, exposure levels to individuals in the above program have been approximately 0.01 person rem per year based on dosimetry data from 219 personnel as reported to the NJDPE (Refs. 5, 11).

5.2.6.2 Health Effects of Radiation Exposure

Levels of exposure for workers at the proposed new CINJ facility are expected to be equivalent to the historic levels reported above (0.01 rem per year). This dose is 500 times less than the exposure limit of 5 rem per year established by the NRC at 10 CFR 20, and by the New Jersey Bureau of Radiation Protection (Refs. 5, 11). Assuming approximately 10-15 persons would be exposed at the proposed Intitute, and using a dose-to-risk conversion rate of 4×10^{-4} deaths per person-rem for radiation workers, the maximum cumulative annual worker exposure from this facility of .15 person-rem would not be expected to result in any harmful health effects from radiation exposures received during normal operations.

5.2.7 Air Emissions

5.2.7.1 Criteria Pollutants

The proposed facility would be heated by two boilers fired by natural gas. Maximum emissions from each boiler are estimated to be 0.0015 lb/hr sulfur oxides (SO_x), 0.25 lb/hr nitrous oxides (NO_x), 0.05 lb/hr carbon monoxide (CO), and 0.13 lb/hr particulates. The estimated emission rates would contribute approximately 0.007 tons/yr SO_x, 1.09 tons/yr NO_x, 0.22 tons/yr CO, and 0.029 tons/yr particulates, assuming full-time operation of both boilers. These emissions would add approximately 2.5% to the University's total emissions.

A preconstruction permit and operating certificate from the NJDEPE Bureau of New Source Review would be required because the 2 million Btu/hr operating design capacity of the boilers would exceed the 1 million Btu/hr threshold. Pollution control apparatus for the boilers would not be required.

Special air emission permits for the northern New Jersey air quality non-attainment area and the Northeast Transport Region for Ozone are issued by the NJDEPE. The City of New Brunswick is located in the northern New Jersey air quality non-attainment area for NO_x

and ozone. New point sources in excess of 25 tons/yr of volatile organic compounds or NO_x require a special permit and a series of air quality modelling studies. These permits would not be required of the proposed new CINJ facility because emissions would be well below the 25 tons/yr threshold. Ozone permits are required when emissions exceed 50 tons/yr. Ozone emissions are not expected to result from natural gas fired boilers.

5.2.7.2 Radioactive

The proposed new CINJ facility would release approximately 0.9 Ci per year (0.002466 Ci per day) of Iodine 125, Phosphorus 32, Carbon 14, Tritium, and Sulfur 35 into the atmosphere, passing through a laboratory fume hood system consisting of a pre-filter, a HEPA filter, and a charcoal filter, to vent from a stack extending 16 vertical feet above the roof of the building. Facilities licensed by the Nuclear Regulatory Commission must meet the following NESHAPS standard: "Emissions of radionuclides, including iodine, to the ambient air...shall not exceed those amounts which would cause any member of the public to receive in any year an effective dose equivalent of 10 mrem/yr.... Emissions of iodine...3 mrem/year.... Compliance...shall be determined through use of either the EPA computer code COMPLY or the alternative requirements of Appendix E." (40 CFR 61 Part I) Appendix E establishes possession limits for radionuclides, which if not exceeded, require no further tests of NESHAPS compliance, such as modelling. Table 5-3 compares projected annual facility possession with the annual possession limits.

Table 5-3. Summary Of Compliance Results Applying Appendix E.

Radionuclide (Form)	Half-Life	Average in Facility mCi/da	Annual Use mCi/yr	Possession Limit mCi/yr
Carbon 14 (Gas)	5,730 years	0.0193	0.5	290
Hydrogen 3 (Gas)	12.3 years	0.9616	25.0	15,000
Iodine 125 (Powder)	60.2 days	0.4808	12.5	6,200
Phosphorous 32 (Powder)	14.3 days	9.6154	250.0	17,000
Sulfur 35 (Powder)	87.5 days	1.9231	50.0	75,000

Given that projected possession quantities for each radionuclide are at least 2 orders of magnitude less than the possession limits, the reported emissions levels would not threaten violation of NESHAP (Ref. 7).

5.2.7.3 Toxic Compounds Released to the Air

Use of the toxic substances (which generate the hazardous wastes reported in section 5.2.3) would probably result in some level of emissions to the atmosphere. None of these substances have NESHAP exposure standards . However, most of them are listed by the American Conference of Governmental Industrial Hygienists (ACGIH) (Ref. 14). The Conference compiles information about toxic and other effects on persons and animals. It uses this information to publish recommended human exposure limits in the work environment. The unit of exposure is the (eight hour) Threshold Limit Value (TLV) which is a steady state concentration in units of parts per million (ppm) or milligrams per cubic meter (mg/m³). The Conference believes that persons exposed for eight hours at or below the indicated levels would not experience adverse health effects. The Conference has not recommended TLV standards for the general public, which would likely be lower; nevertheless, the 8 hour workplace TLV standard provides a useful surrogate for assessing whether emissions of the listed substances are likely to affect public health, and have been used in several Environmental Assessments.

The emissions required to exceed recommended ACGIH Threshold Limit Values (TLV) have been computed for some of these substances using an atmospheric dispersion model (Ref. 12.) The calculation used meteorological data for a location in Louisiana which is different from that in New Brunswick, New Jersey by a factor of 2-3. Nevertheless, for purposes of this evaluation, the Louisiana results provide a reasonable surrogate. Table 5-4 presents the estimated emission level for the reported substances. The estimated emissions are extremely conservative since they are based upon an assumption that releases to the air would equal the quantities disposed of as hazardous waste. The table compares the estimated emissions with the level of emissions which the results of Geraghty and Miller (Ref. 12) indicate would cause a receptor external to the building to be exposed at the TLV level.

Table 5-4. Comparison of Estimated Emission Level With Levels to Exceed TLVs For Reported Substances.

Substance	Annual Waste (liters)	Estimated Emission (10 ⁻⁴ grams/sec)	Emission to Exceed TLV (grams/sec)
ethidium bromide	20	0.65	N/A
isoamyl	20	0.65	15,960*
phenol	40	1.30	110,000*
formaldehyde	30	1.00	N/A
chloroform	20	0.65	1,802
alcohol	40	1.30	36,153
nitric acid	20	0.65	191
butanol	20	0.65	5,516*
methanol	60	1.94	9,636

* Based on proportionality factors applied to results of Ref. 12 and 13.

Accordingly, it can be concluded that the project emissions of these substances would have a negligible impact on the health of potentially exposed persons.

5.2.8 Noise

There would be minor external noise emission from the proposed project associated with rooftop ventilation installations. This noise would probably be inaudible at street level. There are no sources of indoor noise other than conventional building mechanical equipment. Indoor noise would be associated with operation of some of the equipment, but the level of such noise would be low (Ref. 1).

5.2.9 Socioeconomic Impacts

The proposed project would initially employ approximately 150 fellows, researchers, and support staff. The proposed CINJ facility would ultimately have an annual expenditure budget of \$13 million with an annual payroll of about \$8.5 million, representing about 2% of the total University payroll.

5.2.10 Off-Normal Operations

5.2.10.1 Risk of Natural Disaster

The building has been designed to resist earthquakes per codes required by the United States Geologic Survey and the Federal Emergency Management Administration. The building has been designed to resist hurricane force winds per State of New Jersey building design codes.

5.2.10.2 Other Risks

Accidents resulting in exposure to hazardous, radioactive, and biological materials may occur. The University's hazardous waste management program serves to minimize both the risk and consequences of potential accidents (Ref. 8). UMDNJ employees are provided with right-to-know training when they are hired. Employees who use or may come into contact with chemicals are trained in detailed procedures to follow in the event of a chemical release or exposure. The University Department of Environmental and Occupational Health and Safety Services designates accidents into three categories: minor, small, and large. Minor releases are considered to be 1 liter or less of common hazardous materials excluding acutely toxic, carcinogenic or radioactive materials. The small releases are greater than 1 liter of general type hazardous materials. Both minor and small releases are the only spills that may be handled by UMDNJ personnel. Large releases are greater than 1 liter of toxic materials or spills of solvents that is beyond the University's in-house capabilities. These are handled under the Emergency Response by a licensed contractor, Clean Harbors Environmental Services Inc of Edison, NJ (Ref. 9). Additional support and response capability is provided by the UMDNJ Department of Public Safety and the Piscataway Safety Office of the Department of Environmental and Occupational Health.

No reportable incidents or accidents involving hazardous materials or waste have occurred on the New Brunswick Campus in the last five years (Ref. 1, 5). Reportable incidents or accidents include any amount of regulated chemicals by the State of New Jersey. The University's Public Safety Department did not have reliable data prior to the last five years. The proposed facility poses risk factors similar to those at other University facilities with similar operations, and would not be expected to be a source of serious (i.e. reportable) accidents. Any reasonably foreseeable accident involving the handling of wastes generated by the proposed CINJ facility would not be significant in terms of toxics or radioactive exposure to waste handling personnel since appropriate control measures will be in place to ensure that waste handling personnel will not receive significant exposures to waste products. The chemical waste room has appropriate ventilation to prevent the build-up of waste vapors in the air during normal conditions. (Radioactive waste will be transported directly off-site). For unusual circumstances, such as a spill, appropriate procedures will be in place to mitigate potential hazards.

All waste handling personnel for the Cancer Institute of New Jersey would have the appropriate training and certification to handle hazardous wastes safely in accordance with applicable regulations including Right to Know and OSHA's Hazardous Waste Site Operations and Emergency Response regulation, 29 CFR 1910.120. A number of policies have been developed and implemented to ensure that spills of hazardous waste can be

safely addressed without posing a hazard to personnel or the environment. These include a Chemical Spill Prevention and Mitigation Policy, a Hazardous Waste Management Policy and a Respiratory Protection Policy. Spill clean-up supplies will be available on site at the CINJ. In addition, the University maintains a contract with a Chemical Waste/Emergency Spill Response vendor who can respond to spills that cannot be safely addressed by in-house responders, per the Chemical Spill Prevention and Mitigation Policy.

5.2.11 Health Effects

Health care workers and researchers at the Institute would be exposed to various chemotherapeutic drugs, laboratory solvents, and low level radiation from equipment such as x-ray machines and from radionuclides used in clinical and research applications. The University is regulated by the New Jersey Public Employees OSHA (PEOSHA) Program as well as the Uniform Construction Code and the Uniform Fire Code enforced by the Department of Community Affairs. EOHSS is the designated UMDNJ department responsible for ensuring compliance with OSHA regulations through guidelines and training programs (Ref. 5, 10). These are well established programs under Federal and State authority which include standards, inspections and reports. Accordingly, the health effects of the proposed project would be limited to those deemed acceptable to the regulatory authorities.

5.2.12 Traffic and Parking

The project would generate approximately 1,300 two-way trips per day to the off-site garage and to on-site parking spaces, and it would eliminate 500 trips per day. The 1,300 trips include commuting for Institute workers, patients, visitors, commercial pickup and delivery services, and municipal services. The eliminated 500 trips per day would be from prior residential and commercial uses of the site. An estimated 60 current parking spaces would be eliminated by the project. Two independent parking garages are being built by the New Brunswick Parking Authority within .25 miles of the site. These garages will have a total 1,040-car capacity, with 180 spaces to be leased to the University for Institute staff and faculty. In addition, there would be fifty parking spaces for patients at the Institute site (Ref. 5).

5.2.13 Aesthetic

The proposed project would represent a considerable aesthetic enhancement of the site. The western end would be a landscaped garden with a border row of trees visible to persons using St. Peter's High School and the Robert Wood Johnson University Hospitals (Figure 3). The eastern end would consist of landscaped area including trees and gardens visible to residences to the east. Total site area would be 76,860 square feet with 27,660 square feet for the building, 27,200 square feet for parking, and 22,000 square feet of landscaped area (Ref. 1, 7). The building would be two and a half stories high (approximately 30 feet) with a 16 foot stack. The site is surrounded on three sides by much taller buildings.

5.2.14 Land Use

The project would complement the predominantly institutional land uses of adjacent areas, and provide an appropriate transition from the residential neighborhood to the west toward the hospital (Ref. 1).

5.2.15 Cumulative Impacts

Cumulative impacts are defined as "the environmental impact of the action when added to other past, present and reasonably foreseeable future actions...individually minor but collectively significant," per 40 CFR 1508.7. Cumulative impacts have been considered in the context of incremental University operations of each environmental impact discussed in this document, as well as in relation to the impact of the project as a whole. The cumulative impacts would be minimal.

5.3 Compliance with Regulations

The proposed project would require the following permits:

- Soil Erosion and Sediment Control Plan, N.J. Department of Agriculture
- Building Construction Permit, N.J. Department of Community Affairs
- Air Control Apparatus Permit, N.J. Department of Environmental Protection and Energy
- Underground Storage Tank Removal Permit, New Brunswick Building and Housing Division
- Asbestos Removal/Demolition Permit, New Brunswick Building and Housing Division
- Sidewalk and Street Opening Permit, New Brunswick Engineering Division

The proposed project would be constructed and operated in compliance with all the applicable federal, state, or local environmental regulations.

6.0 RELATIONSHIP OF THE PROPOSED ACTION TO ACTIONS BEING CONSIDERED UNDER OTHER NEPA REVIEWS

The proposed action is not related to other actions being considered under other NEPA reviews.

7.0 RELATIONSHIP OF THE PROPOSED ACTION TO ANY OTHER APPLICABLE FEDERAL, STATE, REGIONAL OR LOCAL LAND USE PLANS AND POLICIES LIKELY TO BE AFFECTED

The area has been zoned as a Downtown Hospital Overlay District, thus allowing construction of the proposed facility (Ref. 1). Rezoning of the area by the New Brunswick Department of Planning, Community and Economic Development took place in 1992. There was a public hearing in the form of a Planning Board meeting on the rezoning resolution in 1992 (Ref. 5).

8.0 LISTING OF AGENCIES AND PERSONS CONSULTED

New Jersey Department of Environmental Protection and Energy

- Division of Environmental Regulation, Land Use Regulation Program, Bureau of Inland Regulation, Richard A. Kantor, Supervisor
- Division of Parks and Forestry, Historic Preservation Office, Nancy L. Zerbe, Deputy State Historic Preservation Officer
- U.S. Fish and Wildlife Service, Ecological Services, Pleasantville, NJ, Clifford G. Day, Supervisor

9.0 REFERENCES

1. Environmental Report for the Proposed Cancer Institute of New Jersey, Clinical Treatment and Research Facility, Environmental Resources Management Inc., March 1993
2. New Jersey Department of Environmental Protection and Energy, Division of Parks and Forestry, Historic Preservation Office, Letter from Nancy L. Zerbe, Deputy State Historic Preservation Officer, March 29, 1993, Subject: Historic Sites
3. U.S. Fish and Wildlife Service, Letter from Clifford G. Day, Supervisor, June 8, 1993, Subject: Statement on endangered and threatened species
4. Environmental Impact Data Book, Chapter 8 - Noise, Tables 8-1 to 8-4, Ann Arbor Science, 1979
5. Letter of May 12, 1993, Jeffrey Nicholas, ERM Inc., for UMDNJ to Fred March, Los Alamos Technical Associates for DOE (with enclosures); Subject: Supplemental information about site selection, excavation, hazardous waste quantities, biological and medical wastes, radionuclide use, socioeconomic impacts, risk of accidents, safety programs.

6. New Jersey Department of Environmental Protection and Energy, Environmental Regulation, Land Use Regulation Program, Letter from Richard A. Kantor, Supervisor, Bureau of Inland Regulation, November 17, 1993, Subject: Wetlands
7. Letter of October 11, 1993, Jeffrey Nicholas to Fred March, Subject: Supplemental information about stack for radioactive and hazardous air emissions, plot plan, Fish and Wildlife letter, asbestos quantities, traffic from construction, hazardous waste quantities, radionuclide quantities, radionuclide venting, air toxics handling, landscaped areas.
8. Hazardous Waste Management Program for University of Medicine and Dentistry of New Jersey, Environmental and Occupational Health and Safety Service, July 1992
9. Clean Harbors Environmental Services Inc., Letter of May 3, 1993, Brad C. Lebovitz, Account Manager, Subject: Emergency services provided by Clean Harbors Environmental Services Inc.
10. Revised Organizational Proposal for Department of Environmental and Occupations Health and Safety Services, University of Medicine and Dentistry of New Jersey, August 6, 1991
11. Letter of November 19, 1993, Jeffrey Nicholas to Fred March, Subject: Historic preservation, absence of restrictions on proposed development, worker exposure to radiation.
12. Geraghty & Miller Inc., Air Pollution Hazard Analysis (in support of the Environmental Assessment for the Institute for Micromanufacturing), December 15, 1992
13. American Council of Governmental Industrial Hygienists, Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices, 1990-1992
14. Robert-Wood Johnson University Hospital, Letter of April 29, 1993 from Kevin J. McTernan, Vice President, Administrative Services, Subject: Relocation
15. Letter from Jeffrey Nicholas to Fred March, April 1994, Subject: Additional detail on radioactive mixed waste

APPENDIX A
SUPPORTING DOCUMENTS

New Jersey Department of Environmental Protection and Energy, Environmental Regulation, Land Use Regulation Program, Letter of November 17, 1993

New Jersey Department of Environmental Protection and Energy, Division of Parks and Forestry, Historic Preservation Office, Letter of March 29, 1993

Fish and Wildlife Service, Letter of June 8, 1993

Clean Harbors Environmental Services Inc., Letter of May 3, 1993, Brad C. Lebovitz, Account Manager

State of New Jersey
Department of Environmental Protection and Energy
Environmental Regulation
Land Use Regulation Program

CN 401
Trenton, NJ 08625-0401
Tel. # 609-984-3444
Fax. # 609-292-8115

Jeanne M. Fox
Acting Commissioner

Ernest P. Hahn
Administrator

Kris Hallinger
Environmental Resource Management
300 Phillips Boulevard, Suite 200
Ewing, New Jersey 08618

NOV 17 1993

RE: Application for Letter of Interpretation,
Presence/Absence
File No. 1214-93-0001.2
Cancer Institute of New Jersey

Block: 48; Lots: 8 through 34
New Brunswick, Middlesex County
Watershed: Lower Raritan, Drainage Basin: Raritan
Nearest Waterway: Raritan River

Dear Mr. Hallinger:

This letter is in response to your request of August 2, 1993, for a Letter of Interpretation from the Land Use Regulation Element indicating the presence or absence of freshwater wetlands and waters on the referenced property.

In accordance with an agreement between the New Jersey Department of Environmental Protection and Energy and the U.S. Army Corps of Engineers Philadelphia and New York Districts, the NJDEP, Land Use Regulation Element is the lead agency for establishing the extent of State and Federally regulated wetlands and waters in New Jersey. However, the USACE retains the right to reevaluate and modify the jurisdictional determination at any time should the information prove to be incomplete or inaccurate.

Based upon the information submitted the Land Use Regulation Element has determined that **freshwater wetlands and waters are not present on the referenced property.** In addition, the Department has determined that **no part of the above referenced property occurs within a transition area or buffer as designated in N.J.A.C. 7:7A-6.1(d) and (e).** Your request for this determination, together with all information upon which it is based, has been made a part of the Element's public records.

Pursuant to the Freshwater Wetlands Protection Act Rules (N.J.A.C. 7:7A), you are entitled to rely upon this jurisdictional determination for a period of five years from the date of this letter unless it is modified or revoked by the

United States Environmental Protection Agency or unless the information on which it is based is found to be inaccurate. The U.S. Army Corps of Engineers, however, retains the right to modify the Federal jurisdiction determination at any time should site conditions change.

This determination does not affect your responsibility to obtain any State, Federal, county or municipal permits which may be required.

Please contact David Q. Risilia of our staff at (609) 633-6754 should you have any questions regarding this letter. Be sure to indicate the Element's file number in all communication.

Sincerely,

Richard A. Kantor
Supervisor

Bureau of Inland Regulation

DR/dr

c: U.S. Army Corps of Engineers
Philadelphia District
New York District
U.S. Environmental Protection Agency
New Brunswick Township Clerk
New Brunswick Township Planning Board
Middlesex County Planning Board

()
(X)
(X)

State of New Jersey
Department of Environmental Protection and Energy

Division of Parks and Forestry
Historic Preservation Office

CN 404

Trenton, NJ 08625-0404

Tel.# 609-292-2023

Fax# 609-292-8115

Scott A. Weiner
Commissioner

Nancy Zerbe
Administrator

RECEIVED

APR 15 1993

ERI-PRINCETON

March 29, 1993
HPO-C93-1614

Mr. Kris D. Hallinger, Project Manager
Environmental Resources Management, Inc.
Princeton Crossroads Corporate Center
300 Phillips Boulevard, Suite 200
Ewing, New Jersey 08618

Dear Mr. Hallinger:

As Deputy State Historic Preservation Officer for New Jersey, in accordance with 36 CFR Part 800: Protection of Historic Properties, as published in the Federal Register 2 September 1986 (51, 169, 31115-31125), I am providing Consultation Comments for the following project:

Middlesex County, New Jersey
New Brunswick
Cancer Institute of New Jersey Site, Block 48, Lots 8-34
University of Medicine and Dentistry of New Jersey
United States Department of Energy

800.4 Identifying Historic Properties

To the best of my knowledge, no historic properties have been identified within the project impact zone. Consequently, pursuant to 800.4(d), this concludes the Section 106 process for these properties, unless resources are discovered during implementation of the project pursuant to 800.11.

Additional Comments

Although no historic properties were identified in the project area, a great deal of thought and effort went in to our analysis of the potential significance of this site. A careful review of the additional photographs you submitted led us to the conclusion that the two sites identified in the 1980 Reconnaissance Level Architectural Resources Survey of the City of New Brunswick as worthy of further evaluation, 166 Somerset Street and an Albany Street historic district, are not eligible for the National Register of Historic Places. 166 Somerset Street is a handsome house, but it lacks the architectural distinction, or significant historical association, that would make it individually eligible. It is not part of an eligible historic district. Albany Street has been so altered by the demolition of

houses and new institutional construction that it is not eligible for the National Register as a historic district.

The William Whipper residence, 150 Somerset Street, identified in the 1984 Survey, **Black Historic Sites in New Jersey**, has been greatly altered in the last century. Additionally, the association with William Whipper is not particularly strong. The house was the residence of William Whipper after the period of his significant role in black history. In sum, 150 Somerset Street is not individually eligible for the National Register of Historic Places.

We have not requested archaeological survey on this parcel. By 1861, the Walling Atlas illustrates only approximately two residences located on this portion of the block. Most of the earlier development within the city occurred further to the east. The city did not begin growing substantially in size until the middle of the 19th century with the coming of industrialization to the city, drawing primarily German and Irish laborers to the area. Lot sizes are somewhat small with at least a moderate amount of disturbances evident from the photographs submitted. It can be anticipated that more surficial archaeological deposits would have been disturbed in the small yard areas. This would include any earlier remains, although there is no compelling reason to anticipate earlier historic or prehistoric remains. The greatest chance for surviving remains would be in wells and privy pits. However, by 1868 a public water system was in operation in New Brunswick. During this period a privately installed sewer system was constructed on portions of Albany Street. By 1871, a public sewerage system was installed to include the streets of Albany, Church, Spring Alley and George. It is likely that it included the project area as well. It appears that by the time most of the project block was developed, wells and privies would no longer have been necessary. Also by 1863 a detailed ordinance was passed addressing trash disposal and practices, cess pools, privies, uncleaned ditches, and dead and decaying animal parts, requiring their abatement or removal. While absolute compliance with the ordinance is unlikely it would reduce the available archaeological inventory.

Relative to many other city blocks in industrialized New Jersey, this block does not appear particularly compelling in terms of age, apparent integrity, or association. Much of what is likely to be contained within the archaeological record would be fragmentary, and a great deal of information on the city in general and this block specifically exists in the documentary record by the time of development of this block. In sum, while the block may yield archaeological information, it is unlikely that it would be information "important in history".

We reviewed five professionally prepared cultural resource surveys of nearby areas in reaching our determination that archaeological survey was not warranted.

Should there be any questions, please contact Dan Saunders of my staff at (609) 984-0140.

Sincerely,

Nancy L. Zerbe
Deputy State Historic
Preservation Officer

NZ\ds93528B

c: Frederick Hammond

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ecological Services
927 North Main Street (Bldg. D1)
Pleasantville, New Jersey 08232

IN REPLY REFER TO:

ES-93/125

Tel: 609-646-9310
FAX: 609-646-0352

June 8, 1993

Kris D. Hallinger
Project Manager
Environmental Resources Management, Inc.
300 Phillips Boulevard, Suite 200
Ewing, New Jersey 08618

Dear Ms. Hallinger:

This responds to your May 4, 1993 request to the U.S. Fish and Wildlife Service (Service) for information on the presence of endangered and threatened species within the vicinity of the proposed Cancer Institute of New Jersey, Cancer Treatment Facility site in New Brunswick, Middlesex County, New Jersey.

Authority

This response is provided pursuant to the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) to ensure the protection of endangered and threatened species and does not address all Service concerns for fish and wildlife resources. These comments do not preclude separate review and comments by the Service as afforded by the Fish and Wildlife Coordination Act (48 Stat. 401, 16 U.S.C. 661 et seq.), if any permits are required from the U.S. Army Corps of Engineers pursuant to the Clean Water Act of 1977 (33 U.S.C. 1344 et seq.), nor do they preclude comments on any forthcoming environmental documents pursuant to the National Environmental Policy Act of 1969 as amended (83 Stat. 852; 42 U.S.C. 4321 et seq.).

Listed and Candidate Species

Enclosed are current summaries of the federally-listed and candidate species in New Jersey for your information. Except for an occasional transient bald eagle (*Haliaeetus leucocephalus*) or peregrine falcon (*Falco peregrinus*), no other federally-listed or proposed threatened or endangered flora or fauna are known to occur within the vicinity of the project site.

Candidate species are species under consideration by the Service for possible inclusion on the List of Endangered and Threatened Wildlife and Plants. Although candidate species receive no substantive or procedural protection under the Endangered Species Act, the Service encourages federal agencies and other planners to consider candidate species in the project planning process.

The New Jersey Natural Heritage Program (NHP) provides the most up-to-date information on candidate species in New Jersey, as well as maintaining information on State-listed species. The NHP may be contacted at the following address:

Mr. Thomas Breden
Natural Heritage Program
Division of Parks and Forestry
CN 404
Trenton, New Jersey 08625
(609/984-0097)

Should the NHP data search reveal the presence of any candidate species on the site, the Service must be contacted to ensure that these species are not adversely affected by project activities.

Further information on New Jersey's State listed wildlife species may be obtained from the following office:

Mr. Larry Niles
Endangered and Nongame Species Program
Division of Fish, Game and Wildlife
CN 400
Trenton, New Jersey 08625
(609/292-9400)

Information contained in this letter and additional information obtained from the aforementioned sources represents the public interest for fish and wildlife resources and should warrant full consideration in the project planning process. The Service requests that no part of this letter be taken out of context and if reproduced, the letter should appear in its entirety.

Please contact Annette Scherer of my staff if you have any questions or require further assistance regarding threatened or endangered species.

Sincerely,

Clifford G. Day
Supervisor

Enclosures

FEDERALLY LISTED ENDANGERED AND THREATENED SPECIES IN NEW JERSEY

An **ENDANGERED SPECIES** is any species that is in danger of extinction throughout all or a significant portion of its range.

A **THREATENED SPECIES** is any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

FISHES

Sturgeon, shortnose*	<u>Acipenser brevirostrum</u>	E
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REPTILES

Turtle, Atl. Ridley*	<u>Lepidochelys kempii</u>	E
Turtle, green*	<u>Chelonia mydas</u>	T
Turtle, hawksbill*	<u>Eretmochelys imbricata</u>	E
Turtle, leatherback*	<u>Dermochelys coriacea</u>	E
Turtle, loggerhead*	<u>Caretta caretta</u>	T

BIRDS

Eagle, bald	<u>Haliaeetus leucocephalus</u>	E
Falcon, Am. peregrine	<u>Falco peregrinus anatum</u>	E
Falcon, Arctic peregrine	<u>Falco peregrinus tundrius</u>	T
Plover, piping	<u>Charadrius melodus</u>	T
Tern, roseate	<u>Sterna dougallii dougallii</u>	E

MAMMALS

Bat, Indiana	<u>Myotis sodalis</u>	E
Cougar, eastern	<u>Felis concolor couguar</u>	E+
Whale, blue*	<u>Balaenoptera musculus</u>	E
Whale, finback*	<u>Balaenoptera physalus</u>	E
Whale, humpback*	<u>Megaptera novaeangliae</u>	E
Whale, right*	<u>Balaena glacialis</u>	E
Whale, sei*	<u>Balaenoptera borealis</u>	E
Whale, sperm*	<u>Physeter catodon</u>	E

INVERTEBRATES

Dwarf wedge mussel	<u>Alasmidonta heterodon</u>	E+
Beetle, northeastern beach tiger	<u>Cicindela dorsalis dorsalis</u>	T+
Butterfly, Mitchell satyr	<u>Neonympha m. mitchellii</u>	E+
American burying beetle	<u>Nicrophorus americanus</u>	E+

PLANTS

Pogonia, small whorled	<u>Isotria medeoloides</u>	E
Swamp pink	<u>Helonias bullata</u>	T
Orchid, eastern prairie fringed	<u>Platanthera leucophaea</u>	T+
Knieskern's beaked-rush	<u>Rhynchospora knieskernii</u>	T
American chaffseed	<u>Schwalbea americana</u>	E
Joint-vetch, sensitive	<u>Aeschynomene virginica</u>	T
Pigweed, sea-beach	<u>Amaranthus pumilus</u>	PT

STATUS:

E: endangered species
 T: threatened species
 +: presumed extirpated
 PE: proposed endangered
 PT: proposed threatened

* Except for sea turtle nesting habitat, principal responsibility for these species is vested with the National Marine Fisheries Service.

Note: for a complete listing of Endangered and Threatened Wildlife and Plants refer to 50 CFR 17.11 and 17.12, July 15, 1991)

CANDIDATE SPECIES IN NEW JERSEY

CANDIDATE SPECIES in categories 1 and 2 are species that appear to warrant consideration for addition to the List of Endangered and Threatened Wildlife and Plants. Although these species receive no substantive or procedural protection under the Endangered Species Act, the Service encourages federal agencies and other planners to give consideration to these species in the environmental planning process.

Species

Category

VERTEBRATES

Turtle, bog	<u>Clemmys muhlenbergii</u>	2
Terrapin, northern diamondback	<u>Malaclemys terrapin terrapin</u>	2
Snake, northern pine	<u>Pituophis melanoleucus melanoleucus</u>	2
Duck, harlequin	<u>Histrionicus histrionicus</u>	2
Rail, Black	<u>Laterallus jamaicensis</u>	2
Shrike, migrant loggerhead	<u>Lanius ludovicianus migrans</u>	2
Sparrow, Henslow's	<u>Ammodramus henslowii</u>	2
Warbler, cerulean	<u>Dendroica cerulea</u>	2
Bat, eastern small-footed	<u>Myotis subulatus leibii</u>	2
Rabbit, New England cottontail	<u>Sylvilagus transitionalis</u>	2
Shrew, long-tailed	<u>Sorex dispar</u>	3C
Shrew, Tuckahoe masked	<u>Sorex cinereus nigriculus</u>	2
Woodrat, eastern	<u>Neotoma floridana magister</u>	2

INVERTEBRATES

Beetle, cobblestone tiger	<u>Cicindela marginipennis</u>	2
Butterfly, regal fritillary	<u>Speyeria idalia</u>	2*
Butterfly, tawny crescent	<u>Phyciodes batesi</u>	2
Dragonfly, banded bog skimmer	<u>Williamsonia lintneri</u>	2
Dragonfly, extra-striped snaketail	<u>Ophiogomphus anomalus</u>	2*
Moth, Albarufan dagger	<u>Acronicta albarufa</u>	2
Moth, Bucholz' dart	<u>Agrotis bucholzi</u>	2
Moth, Daecke's pyralid	<u>Crambus daeckeellus</u>	2
Moth, Hebard's noctuid	<u>Erythroecia hebardei</u>	2
Moth, Lemmer's pinnion	<u>Lithophane lemmeri</u>	3C
Moth, precious underwing	<u>Catocala pretiosa</u>	2
Moth, Carter's noctuid	<u>Spartiniphaga carterae</u>	2
Moth, annointed sallow noctuid	<u>Pvreferra ceromatica</u>	2*
Skipper, Eastern beardgrass	<u>Atrytone arogos arogos</u>	2
Skipper, grizzled	<u>Purgus wvandt</u>	2*
Mussel, brook floater	<u>Alasmidonta varicosa</u>	2
Mussel, green floater	<u>Lasmigona subviridis</u>	2
Mussel, yellow lamp	<u>Lampsilis cariosa</u>	2

PLANTS

Bitter cress, Long's	<u>Cardamine longii</u>	2
Blazingstar	<u>Liatris borealis</u>	2
Bog asphodel	<u>Narthecium americanum</u>	1
Boneset, Pine Barrens	<u>Eupatorium resinosum</u>	2
Bulrush, Long's	<u>Scirpus longii</u>	2
Bur-marigold, Maryland	<u>Bidens bidentoides</u> var. <u>mariana</u>	3C?
Butternut	<u>Juglans cinerea</u>	2
Fern, curly-grass	<u>Schizaea pusilla</u>	3C
Jacob's ladder	<u>Polemonium vanbruntiae</u>	3C
Lobelia, Boykin's	<u>Lobelia boykinii</u>	2
Meadowbeauty, awned	<u>Rhexia aristosa</u>	2
Micranthemum, Nuttall's	<u>Micranthemum micranthemoides</u>	1*
Morning-glory, Pickering's	<u>Stylisma pickeringii</u> var. <u>pickeringii</u>	2
Muhly, Torrey's	<u>Muhlenbergia torrevana</u>	3C
Panic grass, Hirst's	<u>Panicum hirstii</u>	2
Pigweed, sea-beach	<u>Amaranthus pumilus</u>	PT
Pipewort, Parker's	<u>Ericaulon parkeri</u>	3C
Pondweed	<u>Potamogeton confervoides</u>	2
Quillwort, Eaton's	<u>Isoetes eatonii</u>	3B
Rush, New Jersey	<u>Juncus caesariensis</u>	2
Sedge, Barratt's	<u>Carex barrattii</u>	3C
Sedge, variable	<u>Carex polymorpha</u>	2
Spring beauty	<u>Claytonia</u> sp.	2
Spurge, Darlington's	<u>Euphorbia purpurea</u>	2
Tick-trefoil, ground-spreading	<u>Desmodium humifusum</u>	2
Verbena	<u>Verbena riparia</u>	2?

STATUS:

- 1: Taxa for which the Service currently has substantial information to support the appropriateness of proposing to list the species as threatened or endangered. Development and publication of proposed rules on these species is anticipated.
- 2: Taxa for which information now in possession of the Service indicates that proposing to list the species as threatened or endangered is possibly appropriate, but for which conclusive data are not available to support proposed rules at this time.
- 3B: Names that, on the basis of current taxonomic understanding, do not represent distinct taxa meeting the Act's definition of "species." Such supposed taxa could be reevaluated in the future on the basis of new information.
- 3C: Taxa that have proven to be more abundant than previously believed and/or those that are not subject to any identifiable threat. If further research or changes in habitat indicate a significant decline in any of these taxa, they may be reevaluated for possible inclusion in categories 1 or 2.
- FE: Proposed Endangered species
- PT: Proposed Threatened species
- indicates those species for which there have been no authenticated records in New Jersey since 1963; some of these are possibly extinct, but further research is needed to determine their status with any confidence.
- ? indicates those species for which occurrence in New Jersey is questionable.

Note: for complete listings of taxa under review, refer to Federal Register Vol. 56, No. 225, Nov. 21, 1991 (Animal) and Vol. 55, No. 35, February 21, 1990 (Plants).

Clean Harbors
ENVIRONMENTAL SERVICES, INC.
3 SUTTON PLACE • EDISON, NJ 08817
(908) 248-1997 • FAX (908) 248-4414

May 3, 1993

Ms. Lindsey Kayman
University of Medicine and Dentistry of New Jersey
675 Hoes Lane
Trailer #1
Piscataway, New Jersey 08854

Re: Emergency Response Capabilities

Dear Ms. Kayman,

We at Clean Harbors, Inc. (CHI) understand your need for a qualified contractor to manage your emergency response situations. Per our telephone conversation this morning, we are currently under contract to UMDNJ to provide emergency response capabilities on a 24 hour basis for 11 New Jersey campuses.

CHI is dedicated solely to the management of hazardous materials situations and solving environmental problems. CHI is an integrated, full service, environmental management corporation, having extensive in-house capabilities, equipment and facilities for providing transportation, treatment and disposal, hydrogeological/geotechnical expertise, engineering, chemical analysis and industrial hygiene field services. All hazardous material incidents are handled in a manner consistent with Federal, State and local contingency plans, regulations and policies.

CHI has in place a notification system by which CHI and/or our subcontractors can be notified for response when services are required. This notification system and the response capabilities will be functional 24 hours per day, 365 days per year.

CHI will provide emergency response services to your location along with any other location that UMDNJ deems necessary. Listed below, is an outline of the type of services we offer to our clients. I'm sure you will find this information useful.

SCOPE OF SERVICES

CHI can quickly respond to the scene of spills of oil and hazardous materials. Such responses will include all necessary manpower, tools, equipment and any other items necessary to contain, control, mitigate, separate, concentrate, decontaminate, neutralize, remove, transport and dispose of discharges of oil and hazardous materials.

Initial response, to begin containment and control of discharges or spills, can be made to many points within one (1) to two (2) hours of notification. Additional equipment and personnel required for mitigation, removal and disposal of discharged materials can arrive at any spill site within four (4) hours of initial notification, but usually in less time.

The primary emergency response services required for a successful response program, which CHI will provide, are summarized below:

- * Site Assessment
The capability of rapidly deploying trained personnel to any spill site for the purpose of determining the nature of problems or potential problems and defining specific actions that must be performed to solve the identified problems (i.e. initial air monitoring via O2 meters, Draeger Kits and Hazard Categorization Wet Chemistry Kits).
- * Establishing Cleanup Criteria
The ability to evaluate and determine the level of hazard associated with a given material in the spill environment. Such information and recommendations will be used to assist your company. The goal of such work is to reach a condition where no actual threat to the environment remains at the completion of mitigation activities, while avoiding unnecessary excavation or treatment that would be costly but not effective in improving the condition of the environment.
- * Immediate Technical Team Response
The emergency response team that responds to significant spills usually consists of a supervisor, and industrial hygienist, a field chemist or analytical chemist/technician and cleanup technicians.
- * Spill Containment and Confinement
The ability to rapidly deploy highly trained personnel and appropriate equipment for the purpose of containing and confining spills of oil and other hazardous materials in order to limit their spread in an uncontrolled manner into the environment.
- * On-Site Industrial Hygiene
As key members of the emergency response team, industrial hygienists will be responsible for defining appropriate safety equipment and procedures to be utilized by all personnel involved in response activities.
- * Recovery of Spilled Product
The ability to mobilize personnel and specialized equipment for

the purpose of recovering product that has been spilled. The objective of all product recovery is to remove as much spilled material as is practical from the uncontrolled environment. If product recovery can be accomplished in a manner that produces a usable or recyclable material cost effectively, then such method(s) will be employed. However, economic value of recovered product will be considered secondary to potential environmental and safety factors in determining the recovery methodologies to be used for each spill incident.

- * **Destruction or Disposal of Spilled Product**
The ability to cost effectively destroy or dispose of spilled material in an environmentally appropriate and legal manner. Based on the nature of the spilled materials and the environment into which they are spilled, destruction and/or disposal options will be evaluated, and the most cost effective, environmentally acceptable option will be implemented at the direction of your company. Options will typically include transport via vacuum truck or solids handling equipment to one of our Treatment, Storage and Disposal Facilities or incinerator; on-site processing or destruction using chemical, physical or biological processes, i.e., insitu neutralization, detoxification and/or fixation.
- * **Transfer and Loading from Damaged Containers**
The ability to safely and rapidly empty the contents of damaged containers into an applicable DOT approved shippable container. Such operations may require pumping product significant distances and may include the transfer of flammable, corrosive, toxic or reactive materials from overturned or damaged tank trucks, flatbed trucks or rail cars.
- * **Nonaccident-Related Emergency Response**
The ability to safely and efficiently transfer hazardous materials from normal conveyances under non-accident conditions.
- * **Restoration of Site**
The ability to develop and implement a plan or restoration of the spill site to pre-spill conditions. On major spills, such work will include the development of remedial action and formal closure plan which will require acceptance prior to implementation of closure.
- * **Regulatory Agency Interface**
The ability to successfully negotiate with Federal, State and local agencies for your company or in concert with your company. Negotiated items can include project designs, data acquisition

and analysis procedures, health and safety programs, Quality Assurance/Quality Control programs, environmental monitoring requirements and acceptable residual levels (i.e., "How Clean is Clean").

* Long Term Remediation

CHI is able to offer to our clients service that includes monitoring and recovery well drilling and installation as well as increased hydrogeological engineering capabilities. Land spills that include contamination of groundwater can now be mitigated in a "turnkey" fashion.

All data and reports developed during the course of a spill response will be collected and edited into a final detailed report which will be submitted to your company at the conclusion of the particular project. Additionally, during the course of the project, written progress reports will be submitted on a regular basis. These reports will describe the technical aspects of the project and will also include cost status and estimate information relative to the project. All technical, analytical and cost data will be retained for possible use in litigation that may arise out of the incident.

MOBILIZATION PLAN

You can initiate a response by calling the Edison Response Center (908-248-1997). The emergency response line ties directly into the Dispatch Center which is answered by trained CHI dispatch personnel 24 hours per day, seven (7) days per week, 365 days per year.

After obtaining basic information about the spill (product, quantity, location and present site status), utilizing the Emergency Response Documentation Form, the dispatcher will then arrange for mobilization of personnel and equipment from the Edison, New Jersey facility. To expedite "call outs", CHI response-team personnel carry pagers allowing them to be reached 24 hours a day via the Edison dispatch office or night answering service. The supervisor's, Health and Safety Coordinator's and Emergency Response Coordinator's vehicles are also equipped the CB radios, two-way radios and mobile phones as applicable. Your designated representative will then be notified regarding the estimated time of arrival and other applicable information. CHI's operations center is located within four (4) miles of New Jersey Turnpike exit 10 and is in close proximity to major transportation routes directly linked to the New York Metropolitan area.

Response Procedures

A key factor in the success of an emergency spill response is the speed with which key response team members can mobilize at the site of the spill and begin containment and control activities. Past experience

has shown that the cost of spill cleanup escalates dramatically with time, since contaminants can spread quickly either on the surface, over water or through soils. It is, therefore, imperative to respond quickly with trained personnel and appropriate equipment in order to limit, to the greatest extent possible, the time between the onset of the spill event and the initiation of control procedures.

In the event of a significant or potentially large spill, the response will be commitment of personnel and equipment of a magnitude adequate to assure that sufficient resources are available to handle the situation.

The emergency response team will typically include the following members:

- * Response Supervisor
- * Industrial Hygienist/Health and Safety Coordinator
- * Field Chemist or Analytical Chemist/Technicians
- * Two (2) to Four (4) Cleanup Technicians

Equipment which may be mobilized initially could include:

- * A dedicated Environmental Emergency Response Unit (Equipped with a Cellular Phone and Two-Way Radio)
- * Backup Emergency Response Boxes
- * Vacuum Trucks and Storage Tanks
- * Solids Loading Equipment
- * Oil Spill Containment and Recovery Equipment (Oil Spills Only)

CHI can dispatch personnel and equipment within one (1) hour of notification. During business hours, when personnel are likely to be at our facilities, dispatch time will usually be less than one (1) hour. Additionally, select CHI transportation equipment is radio equipped and can be re-directed to a spill site as required without having to return to operations center.

The Edison location is equipped with an Environmental Emergency Response Unit (ERU) solely devoted to emergency response activities. The specifically designed 20 foot trailer unit contains all types of emergency response safety equipment (Level A through Level C), spill containment equipment, spill cleanup tools, cutaway saws, plug and patch kits, reference library, air-monitoring equipment, hazard categorization kit, media sampling materials and container, DOT containers and overpacks, and other emergency response related equipment.

QUALITY ASSURANCE/QUALITY CONTROL

This is a statement of the Quality Assurance/Quality Control (QA/QC) Program adopted by CHI that ensures quality is "built-in" as part of the normal course of work rather than "after the fact". Specific actions to be taken during the course of work are emphasized in the program as well as the overall system of "checks and balances" so that work quality can be verified and demonstrated. Emergency Response includes activities in CHI related to:

- * The determination of the substances present at a spill site.
- * The assessment of their effect upon the environment and public.
- * The evaluation and implementation of remedial measures.
- * The monitoring of remedial measures to demonstrate their success.

Everyone involved in providing Emergency Response affects resulting quality; therefore, everyone is involved in QA/QC. Within this QA/QC program, Quality Assurance is defined as the overall system of control applied to Emergency Response, and Quality Control is the individual actions taken within the system on a daily basis. For this program, Quality Assurance and Quality Control are:

- * Quality Assurance

The total system planned and systematic actions taken during the course of work so that adequate confidence in the end product exists. Included are all actions taken by personnel and the documentation of their activities so that performance of work, in accordance with the QA/QC Program, can be demonstrated. Reviews, such as checking and audits are performed to provide verification. The Quality Assurance system provides additional activities beyond conventional Quality Control for verification, planning and demonstration.

- * Quality Control

The daily, specific actions taken by personnel to record information, perform tasks and verify their successful completion, and prepare and maintain records. Basically, Quality Control is the part of the QA/QC Program that builds quality into the work as work is performed and which has the greatest impact upon the successful completion of the work. Quality Control is conventionally considered standard professional practice.

- * Objectives of the QA/QC Program

Provide uniformity of Emergency Response services for tasks

applicable to most projects, regardless of the specific aim of the project. This includes defined policies for:

- Field sampling and sample control
- Prequalification and supervision of subcontractors
- Peer review
- Procurement of outside supplies/services
- Personnel Quality Assurance/Quality Control responsibilities
- Preparation and control of Quality Assurance documents
- Personnel training
- Record preparation, collection and maintenance

Provide continuity throughout a project so that the work progresses as an organized, planned sequence of events which allows modification and feedback during the course of work.

Fulfill regulatory requirements pertinent to a specific project.

This program has been prepared to satisfy the requirements of the U.S. Environmental Protection Agency (EPA) as stated in U.S. EPA, "Interim Guidelines and Specifications for Preparing Quality Assurance Project Plans" QAMS-005/80

CHI is committed to excellence in its Emergency Response Program. The Emergency response program is one key element of CHI's turnkey approach in serving the environmental management needs of industry and government. Maintaining quality and further developing the Emergency Response Program are paramount to Emergency Response Services. Emergency Response Services personnel, with the assistance of others, ensure continued excellence and advancement of the Emergency Response program through conduct of the Emergency Response Quality Assurance/Quality Control Program. It is the policy of CHI to have all Emergency Response Centers staffed by trained and experienced individuals outfitted with dedicated response equipment. Dedicated equipment includes Environmental Emergency Response Units and assigned trucks, where appropriate, equipment in those vehicles, equipment in reserve storage,

To ensure employee health and safety, emergency response services are performed in accordance with CHI Health and Safety Policies and Procedures and only by those persons having received and successfully completed emergency response related training. The CHI Training Department provides emergency response related training on a frequent basis so as to ensure a large pool of qualified emergency response personnel.

Once again, let me re-iterate that CHI is committed to servicing UMDNJ in the most cost effective and professional manner possible. We are here to satisfy any environmental problems that may arise.

If you should need any additional information, please feel free to call me at 908-248-1997.

Sincerely,

Clean Harbors Environmental Services, Inc.

Bradd C. Lebovitz
Account Manager

BCL:sw

U.S. DEPARTMENT OF ENERGY

Finding of No Significant Impact

**Cancer Institute of New Jersey
University of Medicine and Dentistry of New Jersey**

AGENCY: U.S. Department of Energy

ACTION: Finding of No Significant Impact

SUMMARY: The Department of Energy (DOE) proposes to authorize the University of Medicine and Dentistry of New Jersey to proceed with the design, construction, and equipping of the proposed Clinical Treatment and Research Facility of the University of New Jersey on the New Brunswick campus. The facility will provide for the integration of new and existing clinical outpatient cancer treatment with basic and clinical research to expedite the application of new discoveries in cancer treatment. Based on the analysis in the environmental assessment, DOE has determined that the proposed action is not a major Federal action significantly affecting the quality of the human environment within the meaning of the National Environmental Policy Act (NEPA). Therefore, an environmental impact statement is not required, and DOE is issuing this Finding of No Significant Impact.

FOR FURTHER PROJECT INFORMATION CONTACT: Additional information and copies of the environmental assessment and Finding of No Significant Impact are available from:

Bohdan Bodnaruk
Programs and Facility Management Division
U.S. Department of Energy
Chicago Field Office
9800 South Cass Avenue
Argonne, Illinois 60439
(708) 252-2823

For general information on DOE NEPA activities contact:

Carol M. Borgstrom
Director
Office of NEPA Oversight, EH-25
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, DC, 20585
(202) 586-4600 or (800) 472-2756

SUPPLEMENTAL INFORMATION:

PROPOSED ACTION: The Department proposes to authorize the University of Medicine and Dentistry of New Jersey to proceed with the design, construction, and equipping of the proposed Clinical Treatment and Research Facility of the University of New Jersey on the New Brunswick campus. House Report 102-866, which accompanied the fiscal year 1993 Energy and Water Appropriations Act, indicated that \$10 million had been included in the Department's fiscal year 1993 appropriations to assist the University of Medicine and Dentistry of New Jersey with the construction of the proposed facility. The project includes construction and operation of a 75,000 square foot building that would contain administrative, basic research, and clinical facilities. The site is adjacent to the Robert Wood Johnson University Hospital and the New Brunswick University Campus, and is near St. Peter's Medical Center. This location provides auxiliary support of oncology and emergency units, access to resources of affiliated institutions and availability of direct interaction with researchers at the University's New Brunswick campus.

ALTERNATIVES: Alternatives considered were the No Action Alternative and other Site Alternatives. The No Action Alternative would be that the Department would not provide funding for the project. The University plans to construct the project with or without the Department's funding, resulting in the same potential effects as the proposed alternative. No other site alternative was deemed feasible because the Robert Wood Johnson University Hospital, as its contribution to the project, provided the proposed site.

ENVIRONMENTAL IMPACTS: The proposed site is a fully developed urban area in downtown New Brunswick, New Jersey, that has been zoned as a "Downtown Hospital Overlay District." The proposed site presently contains 18 structures and associated underground storage tanks and asbestos-containing materials. Removal of the underground storage tanks and asbestos containing materials would be conducted according to Federal and state procedures and requirements. Analyses of the potential effects of the construction and operation of the proposed project on the human environment revealed no significant impacts. No significant impact would occur to air quality, surface or groundwater quality, or soil. There are no known listed or proposed state or Federal threatened or endangered species associated with the site. The project would not affect a floodplain or wetland. Noise would be typical of a construction site, and would be limited to the hours of 7 a.m. to 7 p.m. Monday through Friday. Existing on-street parking at the site would not be available to the public during construction, although some of the space would be available to construction workers. Upon completion of the project, there will be parking available at the site. The Emergency Medical Services Department and the Home Health Care Department presently occupying buildings on the proposed site will have to be relocated as a result of the proposed action, as well as approximately 30 families or individuals. The Municipal Relocation Office will relocate the families or individuals displaced by the project to comparable public or private housing.

Domestic solid waste from operation of the project is estimated to be about 30 tons per year (less than two percent of the University's total waste load), and would be transported by a licensed contractor to the Middlesex County Landfill in Edison, New Jersey. Sanitary waste from the project would be approximately 28,000 gallons per day (two and a half percent of the University's discharge), and would be discharged to a combined sanitary storm-sewer and directed to the Middlesex County treatment plant. Hazardous wastes generated by the project would range from 20 to 60 liters per year, depending on the type of waste (approximately 1 percent of the

University's total), and would be managed by the waste management contractor according to type of waste at an approved facility located away from the University. Biological and medical waste from the facility would be approximately eight tons per year (an increase to the University's annual total of about three percent), and would be merged with the existing University medical waste and managed in accordance with state regulations. Radioactive and mixed hazardous/radioactive waste would be about 1,450 pounds or five percent of the University's total and would be merged with the University's radioactive and mixed hazardous/radioactive waste stream. No adverse health effects to workers or the public are expected as a result of disposal of wastes or operation of the facility.

DETERMINATION: Based on the information and analyses in the environmental assessment, DOE has determined that the proposed action does not constitute a major Federal action significantly affecting the quality of the human environment, within the meaning of NEPA. Therefore, an environmental impact statement is not required.

Issued at Washington, DC, this 29th day of June, 1994.

Tara O'Toole, M.D., M.P.H.
Assistant Secretary
Environment, Safety and Health