WASTE MANAGEMENT PLAN
FOR THE
ASBESTOS ABATEMENT OF BUILDING 401
NIAGARA FALLS STORAGE SITE
LEWISTON, NEW YORK

PREPARED FOR:

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, BUFFALO DISTRICT
BUFFALO, NEW YORK
CONTRACT DACW 49-00-D-007

Prepared by:

JACOBS ENGINEERING
Engineers and Constructors

125 Broadway
Oak Ridge, TN 37830

March 2002

CERTIFICATION OF INDEPENDENT TECHNICAL REVIEW

Significant concerns and the explanation of the resolution are as follows (Describe the major technical concerns, possible impact, and resolution):
No discussion about waste minimization/housekeeping-Added narrative Section 2.5

Discuss truck tracking process-Added "Internal Communications" in Contingency Plan

No copy of waste acceptance letter from disposal facility-Will be provided to USACE as soon as it is available.

Provide copy of waste manifest form-Will be provided as soon as it becomes available (at acceptance of waste by disposal facility.

Recommend spelling/grammar check-performed.

All concerns resulting from independent technical review of the project have been considered.

Virgil W Jansen (Signature) 8/4/02 (Date)

(Engineer of Record)

COMPLETION OF INDEPENDENT TECHNICAL REVIEW

Jacobs Engineering Group, Inc. has completed the Asbestos Assessment and Abatement Plan for the asbestos abatement of Building 401, Niagara Falls Storage Site, Lewiston, New York. Notice is hereby given that an independent technical review has been conducted that is appropriate to the level of risk and complexity inherent in the project, as defined in the Quality Control Plan. During the independent technical review, compliance with established policy principles and procedures, utilizing justified and valid assumptions, was verified. This included review of assumptions; methods, procedures, and material used in analyses; alternatives evaluated; the appropriateness of data used and level of data obtained; and reasonableness of the results, including whether the product meets the customer's needs consistent with law and existing Corps policy.

Virgil W Jansen — (Signature) — 4/8/02 (Date)
Study/Design Team Leader and Team Members

Brad Krause — (Signature) — 03-28-02 (Date)
Independent Technical Review Team Leader and Team Members

Aaron J Elson — (Signature) — 3/29/02 (Date)
Independent Technical Review Team Leader and Team Members

[signature] — (Signature) — 4/3/02 (Date)
Independent Technical Review Team Leader and Team Members

TABLE OF CONTENTS

1.0 Introduction

Jacobs Engineering, Inc. (JE) is under contract with the US Army Corps of Engineers-Buffalo District (USACE) to provide Engineering, Procurement, and Construction services tasks including, but not limited to, the development of required work plans for the Asbestos Assessment and Abatement of Building 401 at the Niagara Falls Storage Site (NFSS). As a contract requirement, a Waste Management Plan (Plan) is required. This document serves as fulfilling that requirement.

1.1 Purpose

This Waste Management Plan presents the proposed approach to handling, storage, packaging, transportation, and disposal of asbestos containing material (ACM) generated during the asbestos abatement of Building 401 at the Niagara Falls Storage Site. This Plan provides that the work be conducted in a safe, efficient manner in full compliance with the scope of work and applicable regulations.

1.2 Site Background

Niagara Falls Storage Site is located at 1397 Pletcher Road, Lewiston, New York. The U.S. Department of Energy (DOE) owns the site. The site consists of an engineered Waste Containment Structure (WCS), various buildings, and open areas. The site was originally a part of the Lake Ontario Ordnance Works (LOOW). The primary use of the site from early 1940s through mid 1950s was for storage, trans-shipment, and disposal of radioactive wastes from various sources.

Building 401 was initially the powerhouse for the production of TNT at LOOW, and was used to store radioactive materials in support of Manhattan Engineering District (MED) activities during World War II. The building was used for the production of Boron-10 from 1953 to 1959 and from 1965 to 1971 and then became a waste storage facility by MED. In 1971, Building 401 was gutted and its instrumentation and hardware were disposed of as surplus materials. The building has been inactive since.

Building 401 is a steel frame four-story structure approximately 100,000 square feet of floor area. The main structural system of the building consists of steel and concrete load bearing walls supporting the roof. There are multiple floors that contain rooms and

offices and building service areas. There is a tower area and high bay. The building floor is concrete slab on grade.

2.0 Waste Management Approach

Waste streams generated during the performance of asbestos assessment and abatement will be handled generally as asbestos containing materials for the purpose of packaging and handling. These waste streams may include materials with low-level radioactive surface contamination. Waste materials will be scanned for low-level radioactive surface contamination levels and compared with the release criteria for surface decontamination (NRC Regulation Guide 1.86). During the Assessment Phase, there were no incidences where the screening of the suspected ACM building materials exceeded the release criteria of NRC 1.86. All waste materials removed from the site will be handled, packaged, stored and transported in accordance with the applicable state and federal regulations. The Asbestos Assessment and Abatement Plan for this project specifically defines the asbestos management procedures for the on-site field work. The following narrative expands on some of those management procedures.

2.1 Screening and Classifying of RAD Materials

Before any waste can be removed from the work area, it will first have to be determined by the Jacobs RAD Technician to be within the NRC limits specified in Regulation Guide 1.86. A surface radiological survey will be performed immediately prior to the removal of each individual ACM occurrence. The ACM materials will be double bagged in 6 mil polyethylene bags for temporary storage within the building. The exterior of all bags will again be screened prior to loading into roll off boxes for eventual transportation by truck to the disposal facility.

Monitoring will include total alpha contamination, total beta-gamma contamination, and removable alpha contamination. Asbestos to be released from the site includes only that which is in compliance with the U.S. Nuclear Regulatory Commission Regulatory Guide 1.86, Table I, *Acceptable Surface Contamination Levels*. Total and removable alpha

contamination will be compared to the Table I values for radium-226, and total beta-gamma levels will be compared to the Table I values for thorium-232. These NRC Regulatory Guide 1.86 Table I values are given below (dpm is disintegrations per minute):

Nuclide	Average[1] (dpm/100 cm^2)	Maximum[2] (dpm/100 cm^2)	Removable (dpm/100 cm^2)
Ra-226	100	300	20
Th-232	1,000	3,000	200

Notes 1: For total contamination. Will not be averaged over more than 1 square meter
2: For total contamination. Maximum applies to areas not more than 100 cm^2

2.2 Staging of Materials and Wastes Including Waste Piles and Containerization

Waste materials generated through the asbestos abatement at Building 401 will be packaged as described above. All containers containing ACM shall be carefully placed into 40 CY roll off boxes located immediately adjacent to Building 401. Cape Environmental will perform all loading operations. The roll off boxes will be exchanged when they are loaded to the maximum legal capacity for over the road transport.

2.3 Interim Storage Requirements

Prior to transportation to the disposal facility, all wastes will be stored in designated containers in a predetermined area inside the building. As adequate quantities are generated, the ACM bags will be loaded in the roll offs. At no time shall any bagged ACM be permitted outside of building except when properly loaded into the lined and tarped roll offs.

2.4 Packaging Requirements

Asbestos waste, scrap, debris, bags, containers, equipment, and asbestos-contaminated clothing will be collected and placed in sealed dust-proof, waterproof, non-returnable containers (e.g., double plastic bags (6-mil thick), or cartons, drums, or cans). Wastes within the containers will be adequately wet in accordance with 40 CFR 61, Subpart M. An OSHA warning label and U.S. Department of Transportation (DOT) label will be affixed to each container or bag, unless the approved warnings and DOT labeling is preprinted on the bag. The name of the waste generator and the location at which the waste was generated will be clearly indicated on the outside of each container. The

transport roll offs will be lined with plastic sheeting before loading and will be cleaned after the transport and unloading of asbestos debris has been completed.

Asbestos-contaminated water will be processed through a 20-micron and 5-micron wastewater filter system in line to a holding tank. The filters will be changed on a daily basis. The filtered water will then be tested by the RAD Technician as called for in the Radiation Control Contingency Plan and/or Waste Management Plan. Before any waste can be removed from the work area, it will first have to be determined by Jacobs RAD Technician to be within the NRC limits. It is anticipated that the water generated during the Abatement Phase will not exceed the NRC 1.86 criteria and, after filtering as described above, can be discharged to the on-site leachate system. If the water is determined to have low-level radioactive contamination, it will be containerized, segregated and stored on site in an area designated by the U.S. Army Corps of Engineers (USACE) pending arrangements for proper disposal.

During both assessment and abatement phases, PPE wastes will be collected in 6 mil asbestos disposal bags. Each disposal bag will be double bagged, gooseneck taped, and then placed in a segregated room within Building 401. These bags containing PPE will be incorporated with the asbestos wastes generated during asbestos abatement phase.

2.5 Waste Minimization/Housekeeping

A three-step process will be used to minimize the amount of waste to be removed from Building 401. During the pre-abatement cleanup, only the general debris that will hamper the removal of ACM will be packaged for eventual disposal. Secondly, prior to the start of removal of ACM in specific areas, a review of the Assessment Survey will be conducted to identify only those materials that require abatement. Third, planning in advance of the demolition activity will minimize the amount of non-ACM materials requiring removal to gain access to the ACM.

Good housekeeping serves a dual role: minimizing the quantity of waste and allowing the safe execution of the abatement tasks. The following housekeeping practices will be implemented during the ACM abatement phase:
Containments will be checked daily to avoid possible recontamination of cleaned areas and spread of ACM into areas not currently affected.

The use of amended water for wetting the ACM will control fiber releases in the work areas. Use of the water will be judicious in order to avoid generation of substantial amounts of excess waste for disposal. This planned use of water will also avoid the creation of potential safety hazards associated with pooled water on the floor.
The personnel decontamination process, including radiological residual screening and showering will avoid the transfer of contaminants outside the containment area.
All wastes generated during the abatement phase will be immediately packaged for disposal upon removal. No unbagged or non-packaged ACM or general debris will remain loose at any time within the containment.

3.0 Transportation

Waste material will be transported to and disposed of at the US Ecology facility in Grand View, Idaho (USEI). The transporter of this ACM waste stream is Innovative Waste Solutions (IWS). IWS will employ the services of Wills Trucking, Inc. of Richfield, Ohio. Information pertaining to the transporter can be found in Appendix A. This Appendix includes a Transportation Plan, Contingency Plan and a listing of the Wills Trucking Certificates of Registration. All materials will be transported in accordance with 49 CFR 260-272.

3.1 Labeling and Manifests

IWS will prepare the shipping papers and manifests as required for the containers transported off site. Copies of the proposed manifests will be provided to the USACE as soon as they become available (following acceptance of the waste by USEI). All containers will be labeled in accordance with applicable DOT regulations. The USACE site manager will be responsible for signing the manifest as the generator. The Jacobs site manager will retain fully executed copies of all shipping papers and a copy will be provided to the USACE immediately after the shipment leaves the NFSS. The Jacobs site manager, in conjunction with the Project Monitor, will record and report to the USACE the amount of ACM removed and transported for disposal.

Each rolloff box will be labeled with the DOT shipping name of Environmental Hazardous Waste Solid, N.O.S., Hazard Class 9 and DOE ID #UN 3077.

3.2 Shipping Containers

The transport containers will be 40 CY roll off boxes that will have a polyethylene liner and have a weatherproof cover. The boxes will be delivered to the site on an as needed basis. Whenever a box is loaded to the maximum legal weight limit, the cover shall be securely put in place. The transporter will stage an empty box within the defined load out area and remove the loaded box from the site for immediate transport to the disposal facility.

4.0 Disposal Facility

Disposal of the wastes will be at the US Ecology facility located near Grand View, Idaho. This facility is being accessed through the Kansas City District disposal contract. The coordination of the transporter and the disposal facility is the responsibility of Jacobs Engineering. All disposal fee will not be part of the JE Scope of Work but will be handled by the Buffalo District with the Kansas City District.

4.1 Waste Acceptance

A Generator Waste Product Questionnaire is required before USEI issues a letter of acceptance. Because the disposal in under the Kansas City District contract, the disposal facility requires the Buffalo District to prepare and submit this form. Jacobs will prepare the US Ecology Questionnaire for signature by the USACE. Jacobs will submit the signed Questionnaire with attachments to US Ecology and follow-up on the acceptance of the waste stream with the facility on a weekly basis. The USACE will also receive a weekly update of the acceptance status. A copy of the Questionnaire and the Preacceptance Protocol are contained in Appendix B.

4.2 Facility Information

U.S. Ecology Idaho, Inc will dispose of the ACM. The facility is located at 10.5 miles NW on Highway 78, Lemley Road, Grand View, Idaho 83624. The site telephone numbers are 800-274-1516 or 208-834-2275 and site fax number is 208-834-2919. The Point-of-Contact is Mr. Tim Curtin, 16 Mountainridge Drive, Wayne, NJ, 07470. Mr.

Curtin can be contacted at 973-694-7525 or 973-694-2250 (cell). USEI holds a current USEPA Permit: ID Number IDD073114654.

Under their Part B RCRA landfill permit, USEI may accept friable and /or non-friable ACM. USEI requires generators of ACM to follow Local, State and Federal guidelines when assessing, abating, packaging, labeling and disposing of asbestos containing materials. If friable and non-friable asbestos are mixed in packages or containers, USEI requires the generator to follow the most stringent packaging requirements (i.e. friable asbestos packaging). ACM must be identified on shipping documents. ACM and non-NRC radioactive source materials are not regulated under the Resource Conservation and Recovery Act (RCRA). Manifesting of ACM is regulated under 49CFR 172.101.

4.3 Regulatory Acknowledgement of Waste Approval

USEI will contact the Idaho Department of Environmental Quality (IDEQ) to obtain approval for acceptance of this waste once the Waste Profile Questionnaire (WPQ) and other applicable site history and radiological information has been submitted to and approved by US Ecology Idaho. IDEQ may request additional information, as necessary. Jacobs will provide a copy of this regulatory approval letter with a copy of the USEI waste acceptance notification.

5.0 Spill Contingency Plan

Asbestos waste, asbestos-contaminated water, scrap, debris, bags, containers, equipment, and asbestos-contaminated clothing that may produce airborne concentrations of asbestos fibers will be collected and placed in sealed dust-proof, waterproof, non-returnable containers (e.g., double plastic bags, 6-mil thick, or cartons, drums or cans). Wastes within the containers will be adequately wet in accordance with 40 CFR 61, Subpart M. Typical spills associated with this asbestos abatement work are:

- Leaking waste container
- Liquid leaking from WA around shower.

A spill kit will be stored in a safe and secure area that that is easily accessible to the work crew. This spill kit will be located in designated area near the Personnel

Decontamination Unit (PDU) or other areas subject to leaks or spills. The supplies for spill containment and control include:

- HEPA vacuum
- Shovel
- Rags
- Water mister with amended water
- Sandbags
- Absorbent pads (two pillows)
- Solid absorbent (two bags)
- Waste containers.

The waste transporter has a Spill Contingency Plan that is specific to their task. A copy of this Plan is attached as part of Appendix A.

APPENDIX A – TRANSPORTER INFORMATION

INNOVATIVE WASTE MANAGEMENT, INC.

TRANSPORTATION PLAN

Jesse Tumbleston
Transportation Manager
Innovative Waste Management, Inc.
3294 Ashley Phosphate Road
North Charleston, SC 29418
843/725-2016

Transportation Plan

ACM Waste from Lewiston, NY to Grandview, ID

One 40 Yard Roll-Off Box to be continuously spotted on site at facility. One 40 Yard Roll-Off Box to be in route to Grandview, ID following the designated route below:

City/State	Seg Miles	Total	Highways and Comments
Lewiston, NY			
	. . . .		NY 18F E E of Lewiston, NY
	. . . 1		NY 104 W S of Lewiston, NY
	. . . 1		NY 265 SE S of Lewiston, NY
	. . 25		Interstate 190 SE Buffalo, NY
	. . . 7		NY 5 W SE of Woodlawn Bch, NY
	. . . 1		NY 179 E S of Blasdell, NY
	. . . .		Exit 56 NE SE of Blasdell, NY
	. 211		Interstate 90 W SE of Amherst, OH
	1654		Interstate 80 W Echo, UT
	. 281		Interstate 84 W E of Hammett, ID
	. . 41		ID 78 NW Grand View, ID
Grandview, ID	2222	2222	

Route Miles: 2222

State Miles: ID-206, IL-162, IN-152, IA-310
NE-457, NY-99, OH-243, PA-46
UT-145, WY-402

INNOVATIVE WASTE MANAGEMENT, INC.

Hazardous Waste And Infectious Waste Transporter Contingency Plan

Jesse Tumbleston
Transportation Manager
Innovative Waste Management, Inc.
3294 Ashley Phosphate Road
North Charleston, SC 29418
843/725-2016

TABLE OF CONTENTS

PAGE

EMERGENCY ACTION

In the event of an emergency or a hazardous waste spill or discharge during transportation, the driver is to do the following immediately;

- Take steps to keep all unnecessary people away.
- Isolate the hazardous waste zone and keep any untrained/unauthorized people away.
- Place your respirator on immediately for YOUR OWN PROTECTION!

IN CASE OF FIRE

Create a dike to control run-off of fire control water for later disposal. This may be done by isolating the area with a "ditch" of surrounding soil using your shovel(s).

DO NOT SCATTER ANY SPILLED MATERIAL with high-pressure water streams.

IN CASE OF SPILL

Stop leak if it can be done without risk or injury.

FOR SMALL SPILLS, pick up the material with your "CLEAN" shovel and place into a safe container. Following further directions from the EMERGENCY COORDINATOR.

FOR LARGER SPILLS, create a dike to stop any run-off and prevent further spreading. Cover with tarp and plastic bed liners to reduce rate of spreading.

CONTAINMENT, A barrier must be erected immediately to prevent escape of spilled materials/waste liquids, using whatever material is at hand, even a dirt curb to prevent spreading of the spill. Containment of solids will be dependent on wind and weather conditions, use the tarpaulin in the vehicle, a plastic if conditions are wet and windy.

INFECTIOUS WASTE SPILLS - Any spillage of infectious waste must be contained and then shoveled into red plastic containment bags. Any surface that comes into contact with infectious waste must be disinfected with a 10% solution of sodium hypochlorite (bleach).

All fluids resulting from disinfections procedure may-be discharged into a sanitary sewer system. Any materials used for wiping or absorption during the disinfectant procedure must be treated as infectious waste and managed accordingly.

ASBESTOS WASTE SPILLS - Keep waste covered to prevent material from becoming airborne. Dampen material then shovel into plastic containment bags and seal. Asbestos must not be handled without wearing respirator and protective clothing.

AS SOON AS THE HAZARDOUS ZONE IS SECURED AND ALL LIFE IS OUT OF IMMEDIATE DANGER -- DO NOT WAIT -- CONTACT THE WILLS EMERGENCY COORDINATOR.

Be prepared to answer all questions in regards to the following for the Emergency Coordinator so that he/she may notify the Department of Environmental Resources of Jurisdiction, the affected municipality, the Generator and the National Response Center with the following information:

- Name of person reporting incident.
- Name, address, and EPA Identification number of the transporter.
- Phone number where the person reporting can be reached.
- Date, time, and exact location of incident.
- Mode of transportation and the type of transport vehicle.
- A brief description of the incident, including the type of incident.

FOR EACH AND EVERY WASTE INVOLVED IN THE INCIDENT

Name, EPA Identification number and emergency telephone number of the generator of the waste.

Shipping name, hazard class, and the UN or NA number of the waste.

Estimated quantity of the material or waste spilled.

Extent of the contamination of land, waste, and/or air if any.

Shipping name, hazard class, and the UN or NA number of any other materials located at the incident site.

Be prepared to dispose of any contaminated clothing, shoes, tyvev overalls, gloves, boots coveralls, or personal belongings at the incident site. Secure contaminated articles in an appropriate manner.

FIRST AID

Administer first aid to anyone on the scene in immediate danger. In case of contact with material, immediately flush the eyes for at least 15 minutes with your Collyrium Eyewash Kit. Wash skin contacts with soap and water thoroughly. Any contact with material, by yourself or anyone else should be reported to the Emergency Coordinator immediately. The Emergency Coordinator will command the incident scene as best as he/she sees fit in cooperation with all responding agencies. Drivers are to speak with the emergency Coordinator in regards to the incident, and allow him/her to assess the situation based upon their experience, and decisions must be cleared with the Emergency Coordinator.

The transporter will submit a report of the incident in writing as required under 49 CFR 171.16 to the Chief, Information Systems Division, Transportation Programs Bureau, Department of Transportation, Washington, DC 20590, and will send copies of the report to the Department of Environmental Protection of the proper jurisdiction, and the generator.

LIST OF EMERGENCY RESPONSE AGENCIES

The following agencies will be notified of any imminent or actual situations involving hazardous waste and its constituents being transported by Wills Trucking, Inc.

NATIONAL RESPONSE CENTER -- 24 HOURS/DAY

1-800/424-8802 or 202/426-2675

NEW YORK DEPARTMENT OF ENVIRONMENTAL CONSERVATION

515/457-9412

NY STATE EMERGENCY RELEASE REPORTING

800/457-7362 24 hours

Director of the Office of Hazardous Materials Regulations, Materials Transportation Bureau, Department of Transportation, Washington, DC.

Must be notified in the event of:
A person is killed or requires hospitalization due to injuries.
Carrier or property damage exceeds $50,000.

Accident of spill involves radioactive materials or etiological agents.
If spill or accident causes a continuing danger to life.

CHEMICAL TRANSPORTATION EMERGENCY CENTER (CHEMTREC)

1-800/424-9300

LOCAL POLICE/FIRE DEPARTMENTS (FOR AFFECTED AREA)

911 or 0 except for Maine

EPA REGION II

732/548-8730

NEW YORK STATE DEPARTIMENT OF HEALTH

548/474-2011

LIST OF EMERGENCY COORDINATORS

The following personnel are on call for emergency situations, and will commit any resources necessary for the removal of pollution hazards associated with an emergency or spill.

SAFETY DIRECTOR AND PRIMARY COORDINATOR

Jesse Tumbleston
2062 Central Avenue
Summerville, SC 29483
843/871-5255
Cellular Phone: 843/709-5275

OPERATIONS MANAGER AND SECONDARY COORDINATOR

John Plasky III
9661 Pondera Street NW

Robert Underation
5797 Regay Drive

Massillon, OH 44646
330/854-2305
Cellular Phone: 330/283-3506

Akron, OH 44319
330/882-9633
Pager # 216/931-1732

INNOVATIVE WASTE MANAGEMENT, INC. CORPORATE HEADQUARTERS AND SAFETY DIVISION

843/725-2000 or
800/858-1663

WILLS TRUCKING, INC. CORPORATE HEADQUARTERS AND SAFETY DIVISION

330/659-9381 or
800/321-3197

Any spill or emergency will be reported by the driver to one of the above listed Emergency Coordinators who will call an Emergency Response Contractor, notify all authorities, and notify the generator.

EMERGENCY EQUIPMENT

Each tractor carries the following emergency equipment:

- Gloves
- Tyvec suit
- Shovel
- Plastic trailer liners
- Fire Extinguisher
- 3M 8725 Acid/Gas Respirator
- DOT Emergency Guide Book
- Emergency reflective triangles (3)
- Skin and Eye neutralization
- CB radio
- Equipment on liquids waste hauling vehicles
- Absorbent clay and pads
- 5 Gallon pail and over pack drum (95 gallons)
- Goggles
- Hard hat
- Boots
- Flashlight

- First aid kit

In addition to the above, each vehicle that transports medical waste or infectious waste will be equipped with:

- Barricade tape - 1 roll
- Spare red bags - 10 each
- Spare tape - 3 rolls
- Bleach - 1 gallon
- Sprayer - 1
- Drop Cloth - 2
- Eye Goggles - 1 pair
- Dustpan - 1
- Whisk Broom - 1
- Paper towels - 1 roll
- Duct tape - 1 roll
- Absorbent pads - 5
- Waterless hand cleaner - 1

LIST OF EMERGENCY RESPONSE CONTRACTORS

In case of a spill or emergency situation, the Emergency Coordinator will utilize an Emergency Contractor.

PRIMARY CONTRACTOR

ERTS - Emergency Response & Training Solutions
555 Oakmont Lane
Aurora, Ohio 44202
440/247-5204

- Provides emergency response and clean up 24 hrs daily, uses specialized equipment can respond in 48 states.

SECONDARY CONTRACTOR(s)

Enviro Waste Minimization
719 Roble Road, Suite 103

EISCO
Wilmington, DE

Allentown, PA 18103 800/777-4010
610/264-8280

- Emergency response available 24 hours daily in PA; NY and NJ. Can handle river spills.

Sitex Environmental, Inc.
Hillside Business Center, Suite 212
2469 East 7000 South
Salt Lake City, UT 84121
801/943-1222
Fax: 801/943-1288

- For spills or emergency response in western states, the emergency coordinator will utilize the above.

EXTERNAL COMMUNICATIONS

The main office of Innovative Waste Management, Inc. is equipped with facsimile capabilities, reached under FAX number: 843/725-2018.

Our emergency telephone number is 843/709-5275

- Cellular phone number for Jeff Benson: 843/509-3961

Our business phones are:

- 843/725-2000
- 800/858-1663

The Emergency Coordinators are equipped with CB radios and/or cellular phones to expedite handling or coordinating response.

DECONTAMINATION PROCEDURES

DECONTAMINATION

A truck or trailer exposed to a spill or leak will be decontaminated at the site in order to prevent any further release to the extent that it can be transported (or move under its own power) to an authorized facility capable of further decontamination if necessary.

Equipment will be decontaminated in the following manner:

- Each item used will be placed in an open head container and thoroughly rinsed with a compatible solvent or cleaning compound. The residue or wash water will then be drained into a tight head container, sealed, and disposed of in accordance with Federal and State Regulations at an authorized disposal site.

Clothing - Contaminated clothing will be placed with the clean up residue and disposed of in accordance with Federal and State Regulations at an authorized disposal site. If clothing is reusable, then it will be decontaminated properly and the residue added to the other waste.

EMPLOYEE TRAINING PROGRAM

All drivers are given formal training, which consists the following items.

INTERNAL COMMUNICATIONS

Wills truck drivers are issued cellular phones and are required to call into Wills Trucking at loading, unloading, and a minimum of every 12 hours.

LAWS

Explanation of laws under the Resource Conservation and Recovery Act.

EPA

How the EPA identifies a hazardous waste.

RESPONSIBILITIES

Responsibilities of the Generator, Transporter, and Disposal Facility.

HAZARDOUS WASTE MANIFEST

In depth training on the Uniform Hazardous Waste Manifest. Explanation of its purpose as a trucking document, copies and paper flow. Explanation of the waste codes and how to identify the contaminants.

USAGE OF DOT EMERGENCY RESPONSE GUIDEBOOK

Usage of and requirement in the maintaining knowledge of the U.S. DOT Emergency Response Guidebook.

TYPE OF WASTE

Explains the types of wastes Wills Trucking, Inc. hauls is primarily described as Environmental Hazardous Substances or Hazardous Waste Solid, N.O.S. class 9, UN 3077, PGIII.

POTENTIAL HAZARDS

Explain the specific and potential hazards of asbestos, infectious, and hazardous waste to the driver and the public health, emergency action to take in case of a spill, how to handle safely and how to render first aid.

PROCEDURES IN CASE OF SPILL

What to do and response procedures in case of a spill, accident, reporting, and the use of the "CONTINGENCY PLANS FOR WILLS TRUCKING, INC., PERSONNEL".

DOT, OSHA AND EPA RULES AND REGULATIONS

Explain and discuss DOT, OSHA and EPA rules and regulations for safe transporting, including use of tunnels, placarding, parking, and vehicle permitting. OSHA training includes right to know standard, MSDS sheets and personal safety equipment.

PROPER USE OF RESPIRATORS

Demonstrate and describe proper use of respirators. What it protects against and its limitations, proper maintenance and fit testing.

HOW TO AVOID SPILLS

Instruct personnel on how to avoid spills, demonstrate use of the plastic bed liners, secondary closures on tailgates, and on limiting the load.

CLEAN UP OF SPILL PROCEDURE

Upon notification of a spill or emergency involving hazardous material or waste, the main office of Innovative Waste Management, Inc. will immediately summon the clean up crew and an Emergency Coordinator to assess the extent of the problem and to implement remedial action(s). Notification, the Department of Transportation, Director of Hazardous Materials Registration, Materials and Transportation Bureau, Washington, DC 20590 will be notified, in writing, of the occurrence and nature of the incident

HAZWOPER TRAINING

The transporters of Innovative Waste Management complete formal 24 hour and 8 hour refresher training sessions on hazardous waste hauling.

EMERGENCY PHONE LIST

In the event of a spill or emergency involving hazardous material or waste in any of the states listed below, the following agencies must be advised by telephone.

ALABAMA - Department of Environmental Management

Alabama Emergency Management Agency 800/356-9596
205/280-2200
Hazardous Waste Incidents 800/843-0699

ARIZONA - Department of Public Safety 602/207-2330

CALIFORNIA - Department of Health & Services 916/445-6360

COLORADO - State Police..... 303/239-4501

CONNECTICUT

D.E.P. 860/424-3338

DELAWARE

D.N.R 800/662-8802
(In State Only)
302/739-5072

IDAHO - State Emergency Switchboard..... 800/632-8000
(In State Only)

ILLINOIS - E.P.A...... 217/782-3637

INDIANA - Hazardous Waste Management..... 317/308-3024

IOWA - D.N.R...... 515/281-8694

KANSAS 913/296-1500

KENTUCKY - Division of Hazardous Waste 502/564-6716

LOUISIANA - Division of Environmental Quality 504/342-1234

MAINE - D.E.P. 800/482-0777
(In State Only)

MARYLAND

Office of Environmental..... 410/333-2950
24 hours..... 410/974-3551

MASSACHUSETTS

Department of Environmental Protection 617/556-1133 (local) 888/304-1133
(toll free)

MICHIGAN - D.N.R...... 800/292-4706

MINNESOTA - Pollution Control Agency..... 952/649-5451

MISSOURI - D.N.R. 573/634-2436

MONTANA 406/841-3911

NEBRASKA - D.E.C...... 402/471-2186

NEVADA

Highway Patrol..... 702/687-5300

NEW HAMPSHIRE

D.E.S. 603/271-3899

State Police..... 800/346-4009

NEW JERSEY

D.E.P. 609/292-5560

609/292-7172

NEW MEXICO - Department of Health Services 505/827-9329

NEW YORK - Dept. of Environmental Conservation 518/457-9412

NORTH DAKOTA

Department of Health..... 701/328-9921

800/472-2121

(in state)

OHIO - Division of Hazardous Material Management..... 800/282-9378

OKLAHOMA

Department of Health..... 405/271-4468

After hours 800/522-0206

PENNSYVANIA

Department of Environmental Protection……717/787-4343

Emergency Management Agency……717/651-2001

800/424-7362

RHODE ISLAND

Department of Environmental Management 401/277-3872
Department of Environmental Management 800/498-1336

SOUTH CAROLINA - Department of Health 888/481-0125
In Columbia, SC 803/253-6488

SOUTH DAKOTA - Office of Emergency Services 605/773-3231

TEXAS - Commission 512/463-7727

UTAH
Department of Health 801/536-4123
800/572-6400

VERMONT
Agency of Natural Resources 802/241-3888
(8-4:30)
Vermont Emergency Management 800/641-5005
(24 hrs)

VIRGINIA - Office of Emergency Services 804/674-2400
804/698-4000

WASHINGTON - Department of Ecology
N.W. Region 425/649-7000
S.W. Region 360/407-6300
Central Region 509/575-2490
Eastern Region 509/456-2926

WEST VIRGINIA - Department of Highway 304/558-3111

WISCONSIN - D.N.R. 800/943-0003

WYOMING 307/777-7781

PROVINCE OF ONTARIO
Ministry of Environment 416/325-3000
Federal Spill Reporting 613/997-3742

PROVINCE OF QUEBEC

Department of Environment..... 514/873-3454
Federal Spill Reporting 514/283-2333

CANADIAN TRANSPORT EMERGENCY CENTER.....Call collect 613/996-6666
(CANUTEC) .....By cellular phone*666 (Canada only)

Acknowledgement of Notification of Hazardous Waste Activity

EPA

ACKNOWLEDGEMENT OF NOTIFICATION
OF HAZARDOUS WASTE ACTIVITY

This is to acknowledge that you have filed a Notification of Hazardous Waste Activity for the installation located at the address shown in the box below to comply with Section 3010 of the Resource Conservation and Recovery Act *(RCRA)*. Your EPA Identification Number for that installation appears in the box below. The EPA Identification Number must be included on all shipping manifests for transporting hazardous wastes; on all Annual Reports that generators of hazardous waste, and owners and operators of hazardous waste treatment, storage and disposal facilities must file with EPA; on all applications for a Federal Hazardous Waste Permit; and other hazardous waste management reports and documents required under Subtitle C of RCRA.

EPA I.D. NUMBER ➤ OHD068913409 REACKNOWLEDGEMENT

RECEIVED
OCT 2 1981

MILLS TRUCKING CO INC
3165 COLUMBIA ROAD
RICHFIELD OH 44286

INSTALLATION ADDRESS ➤

3165 COLUMBIA ROAD
RICHFIELD OH 44286

EPA Form 8700-12A (6-80)

Certificate of Liability Insurance

ACORD™ CERTIFICATE OF LIABILITY INSURANCE — DATE (MM/DD/YY): 2/22/02

PRODUCER
Britton-Gallagher & Assoc.
6240 SOM Center Rd.
Cleveland, OH 44139-2985
440-248-4711

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

INSURED
Wills Trucking, Inc.
Attn: Joan Eshleman
3185 Columbia Rd.
Richfield OH 44286

COMPANIES AFFORDING COVERAGE

COMPANY A	Utica Mutual Insurance Company
COMPANY B	Agricultural Ins. Co./Gr.Amer.
COMPANY C	Gulf Underwriters Insurance Co.
COMPANY D	United National Ins. Co.

COVERAGES

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED, NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

CO LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS	
A	GENERAL LIABILITY	CPP3007800	6/15/01	6/15/02	GENERAL AGGREGATE	$ 2000000
	X COMMERCIAL GENERAL LIABILITY				PRODUCTS - COMP/OP AGG	$ 2000000
	CLAIMS MADE X OCCUR				PERSONAL & ADV INJURY	$ 1000000
	OWNER'S & CONTRACTOR'S PROT				EACH OCCURRENCE	$ 1000000
					FIRE DAMAGE (Any one fire)	$ 100000
					MED EXP (Any one person)	$ 5000
A	AUTOMOBILE LIABILITY	BAC2015918-Trkrs	6/15/01	6/15/02	COMBINED SINGLE LIMIT	$ 1000000
	X ANY AUTO	Includes MCS-90 .				
	ALL OWNED AUTOS				BODILY INJURY (Per person)	$
	SCHEDULED AUTOS					
	HIRED AUTOS				BODILY INJURY (Per accident)	$
	NON-OWNED AUTOS					
	X UII CA2317					
	X $500.Deds.	BAC3007786-Owned	6/15/01	6/15/02	PROPERTY DAMAGE	$
A	GARAGE LIABILITY	GAC3007794	6/15/01	6/15/02	AUTO ONLY - EA ACCIDENT	$ 1000000
	X ANY AUTO				OTHER THAN AUTO ONLY:	
	X $500.Deds.				EACH ACCIDENT	$ 1000000
					AGGREGATE	$ 3000000
A	EXCESS LIABILITY	CULP3323727	6/22/01	6/15/02	EACH OCCURRENCE	$ 4000000
	X UMBRELLA FORM	Co:D/XTP0066752	6/21/01	6/15/02	AGGREGATE	$ 4000000
	OTHER THAN UMBRELLA FORM				Exc.Umb-Occ.	$ 5000000
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY				WC STATU-TORY LIMITS / OTH-ER	
	THE PROPRIETOR/ PARTNERS/EXECUTIVE OFFICERS ARE: INCL / EXCL				EL EACH ACCIDENT	$
					EL DISEASE - POLICY LIMIT	$
					EL DISEASE - EA EMPLOYEE	$
B	OTHER		6/15/01	6/15/02		
	Motor Truck Cargo	Co:B/IMP9863605			$30,000,	
	Pollution Liab.	Co:C/GU0692716			$1,000,000.Occ/$2,000,000.Agg	
	Trlr. Interchange	Co:A/BAC2015918			$40,000./$2500.Deds.	

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/SPECIAL ITEMS

CERTIFICATE HOLDER

INNOVATIVE WASTE SYSTEMS
ATTEN: JESSE TUMBLESTONE
3294 ASHLEY PHOSPHATE
N. CHARLESTON, SC 29418

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING COMPANY WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE COMPANY, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE

ACORD 25-S (11/90) — © ACORD CORPORATION 1990

Hazardous Materials Certificate of Registration for Registration Year 2001-2002

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION
RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION

HAZARDOUS MATERIALS CERTIFICATE OF REGISTRATION FOR REGISTRATION YEAR 2001-2002

Registrant: WILLS TRUCKING INC
Attn: Daniel R Madden
3185 Columbia Rd
Richfield, OH 44286

This certifies that the registrant is registered with the U.S. Department of Transportation as required by 49 CFR Part 107, Subpart G.

This certificate is issued under the authority of 49 U.S.C. 5108. It is unlawful to alter or falsify this document.

Reg. No: 060601 010 013J Issued: 06/11/01 Expires: 06/30/02

Record keeping Requirements for the Registration Program

The following must be maintained at the principal place of business for a period of three years from the date of issuance of this Certificate of Registration:

(1) A copy of the registration statement filed with RSPA; and
(2) This Certificate of Registration

Each person subject to the registration requirement must furnish that person's Certificate of Registration (or a copy) and all other records and information pertaining to the information contained in the registration statement to an authorized representative or special agent of the U. S. Department of Transportation upon request.

Each motor carrier (private or for-hire) and each vessel operator subject to the registration requirement must keep a copy of the current Certificate of Registration or another document bearing the registration number identified as the "U.S. DOT Hazmat Reg. No." in each truck and truck tractor or vessel (trailers and semi-trailers not included) used to transport hazardous materials subject to the registration requirement. The Certificate of Registration or document bearing the registration number must be made available, upon request, to enforcement personnel.

For information, contact the Hazardous Materials Registration Manager, DHM-60 Research and Special Programs Administration, U.S. Department of Transportation, 400 Seventh Street, SW, Washington, DC 20590, telephone (202) 366-4109.

Updated: December 28, 2001

Wills Trucking, Inc. Hazards Waste Permit Information

ALABAMA

License expires 3/24/2003. Copy of license and contingency plan to be carried in the vehicle at all times. Renewal must be applied for 180 days prior to expiration. Renewal app. Is not sent automatically.

ARIZONA

No special requirements.

ARKANSAS

H-421 Highway Police permit expires 12/04/2002. Must carry copy of permit.

CALIFORNIA

Registration #3297 expires 8/31/02. Must carry copy of license.

COLORADO

Permit #HMP 02066 Expires 2/05/02. Must carry transferable permit.

CONNECTICUT

Permit #CT-HW-404 expires 6/30/02. Must have permit # displayed on sides and rear of trailer. Trailer license plate must be listed on permit, $25 to add trailers. Monthly reports due.

DELAWARE

Permit #DE-HW-248 expires 2/28/04. Must display permit # on sides and rear of trailer. Licensed for Belleville, Fort Wayne, Pinewood, Oregon Ohio. CEI Detroit and Roseville.

SOLID WASTE-#DE-SW-248 Expires 2/28/02. Licensed to transport through the state

FLORIDA

Registered 4/18/85. Must carry copy of approval certificate for haz. Counties or cities may have permitting requirements.

GEORGIA

No special requirements except for PCB's. Transferable permits are $100. Must call Safety or the Columbia terminal to get a permit via UPS.

IDAHO

Annual license is $250/Vehicle. Trip permits are $20 at POE.

ILLINOIS

Part of Uniform Haz mat program (see Ohio).

INDIANA

No special requirements. No authority needed on intrastate haz moves. Must have IN or IRP apportioned plates.

IOWA

No special requirements. No intra authority for waste being disposed of. Authority required for recycled material.

KANSAS

OHD068913409. Special routing. Must carry copy of permit in vehicle. License expires 12/31/2001.

KENTUCKY

OHD068913409 Issued 8/10/83. No expiration no Intra authority required.

LOUISIANA

Use Louisiana Manifest. Intra haz & non haz requires authority.

MAINE

(ME/HWT-320)(ME/WOT-26) $50 Driver, $50 Trailer. Expires 3/20/02. $40 per ton tax is charged by state when waste is hauled out of Maine.

MARYLAND

Permit #HWH-358. Expires 3/31/02. Decal issued to trailer $50. Authorization required on intra-state haz moves.

MICHIGAN

Part of Uniform Haz Mat program (see Ohio)
Liquid Waste permit #LIW0104064MI expires 10/08/02. Carry copy.

MINNESOTA

Part Uniform hazardous material program (see Ohio)

MASSACHUSETTS

License #312, DPU certificate #18297. Expires 12/31/2001. Monthly reports are due. Vehicle permits expire 12/31/2001.

MISSOURI

Permit #H1453. Expires 7/09/02. Embossed Cert. Issued to trailer $100.

MISSISSIPPI

No special requirements.

MONTANA

No special license for Haz waste

NEBRASKA

No special requirements.

NEVADA

Part Uniform hazardous materials program (see Ohio)

NEW HAMPSHIRE

Permit #TNH0015. Expires 6/30/02. Oil contaminated soil is not regulated. Copy of license must be carried in vehicle.

NEW JERSEY

HAZ D.E.P. S-10330. Tractor and trailer must be permitted expires 6/30/02.

SOLID D.E.P. 14032. $178 Tractor, $178 Trailer. Expire 06/30/02.

NEW MEXICO

Hazardous Material permit expires 12/04/2002. Carry of photocopy.

NEW YORK

Permit #OH-064. Expires 11/30/2002. Must be permitted for non-haz also. Authority required for intra-state haz moves/garbage exempt.
CHECK TRAILER LICENSE PLATE ON PERMIT!! $200 per trailer.

NORTH CAROLINA

No special requirements.

OHIO

Must carry copy of PUCO Uniform Haz Mat registration and permitting program credentials. UPI#UPW-0104064-OH

OKLAHOMA

Part of Uniform Haz Mat program (see Ohio)

PENNSYLVANIA

Permit #PA-AH-0295. Expires 11/30/2002. Vehicle owner's name must be listed on affidavit filed periodically by the Safety Dept. Green Card, all safety equip., and Contingency plan must be carried in vehicle.

RHODE ISLAND

OHD068913409. Expires 12/07/2002. Quarterly reports are due if we haul waste oil or battery dust.
Infectious waste registration expires 07/17/02.

SOUTH CAROLINA

OHD068913409. Expires 12/07/2002. Quarterly reports are due if we haul waste oil or battery dust.

TENNESSEE

OHD068913409. Expires 3/1/2002. Carry copy of license in vehicle.

TEXAS

TDW #40708 assigned on 4/18/85

UTAH

No special requirements.

VERMONT

Permit needed for Tractor and Trailer $20.00 each. Expires 6/30/02.

VIRGINIA

OHD068913409. Expires 5/18/03. Annual report due by April every year.

WEST VIRGINIA

Part of Uniform Haz Mat program (see Ohio)

WISCONSIN

License #11574. Expires 9/30/02. Can pick up waste in state after notifying DNR.

WYOMING

No special requirements.

U.S.D.O.T.

Hazardous Materials Certificate of Registration #060601 010 013J. Expires 6/30/02. Carry copy in Tractor.

ONTARIO

Provisional Certificate of Approval #A800571. Check waste types. Must carry complete permit and certificate of insurance.

QUEBEC

Operating Permit file #7610-06-01-01674101117266 issued 5/07/97 expires 05/07/2002.

Appendix B – U.S. Ecology Waste Product Questionnaire

INSERT QUESTIONNAIRE HERE

Page 2 of questionnaire

Page 3 of questionnaire

Page 4 of questionnaire

B-2 Preacceptance Protocol

B-2a Hazardous Waste Preacceptance Review

The Preacceptance protocol has been designed to ensure that only hazardous waste streams that can be properly and safely stored, treated and/or disposed of by USEI are approved for receipt at the facility. A two-step approach is taken by USEI. The first step is the chemical and physical characterization of the candidate waste stream by the generator. The second step is the Preacceptance evaluation preformed by USEI to determine the acceptability of the waste for receipt at the facility. Figure B-2 presents a logic diagram of the Preacceptance protocol that is utilized at the facility.

C-2b(1) Radioactive Material Waste Acceptance Criteria

The following waste acceptance criteria are established for accepting radiological contaminated waste material that is not regulated by the Nuclear Regulatory Commission (NRC) under the Atomic Energy Act of 1954, as amended. These criteria are set forth in the following four tables establishing types and concentrations of radioactive materials that may be accepted.

The tables are based on categories and types of radioactive material not regulated by the NRC based on statute or regulation. The criteria are consistent with these restrictions and detailed analyses set forth in *Waste Acceptance Criteria and Justification for FUSRAP Material,* prepared by Radiation Safety Associates, Inc. (RSA) as subsequently refined, expanded and updated in *Waste Acceptance Criteria and Justification for Radioactive Material,* prepared by USEI certified Health Physicists in consultation with RSA.

Based on the categories of waste described in the waste acceptance criteria, the concentration of the various radionuclides in the conveyance (e.g., rail car gondola, other container etc.) shall not exceed the concentration limits established in the WAC. If individual “pockets” of activity are detected indicating the limits may be exceeded, the Facility Radiation Safety Officer or Facility Safety Officer shall investigate the discrepancy and estimate the extent or volume of the material with the potentially elevated radiation levels. The Radiation Safety Officer shall then make a determination on the compliance of the entire conveyance load with the appropriate WAC limits. If the conveyance is determined to meet the limits, the material may be disposed. If an exceedances is determined to exist, USEI will contact the IDEQ’s Radiation Control

Program (Radiation Control Officer) to evaluate and discuss management options. The findings and resolution actions shall then be documented and submitted to the IDEQ.

The radioactive material waste acceptance criteria, when used in conjunction with an effective radiation monitoring and protection program as defined in the USEI *Radioactive Material Health and Safety Manual and Radioactive Material Receipt Procedures* provides adequate protection of human health and the environment. Included within this manual are requirements for USEI to submit a written summary report of waste receipts showing volumes and radionuclide concentrations disposed at the USEI site on quarterly basis.

These criteria and procedures are designed to assure that the highest potential dose to a worker handling radioactive material at USEI shall not exceed 400 mrem/year TEDE dose, and that no member of the public is calculated to receive a potential dose exceeding 15 mrem/year TEDE dose, from the USEI program. TEDE is defined as the "Total Effective Dose Equivalent", which equals the sum of external and internal exposures. The public dose limit during operational activities will be limited to 100 mrem/yr TEDE dose.

Table 1: Unimportant Quantities of Source Material Uniformly Dispersed[*] in Soil or Other Media[**]

Status of Equilibrium	Maximum Concentration of Source Material	Sum of Concentrations Parent(s) and all progeny present[***]
Natural uranium in equilibrium with progeny	211 ppm / 141 pCi/g	≤2000 pCi/g
Refined natural uranium (U-238, 235, 234; Th-234; Pa-234m)	500 ppm / 333 pCi/g	
Depleted uranium, DU(Th-234 & Pa-234m)	500 ppm / 169 pCi/g	
Natural thorium (Th-232 + Th-228)	500 ppm / 110 pCi/g	
Thorium-230 in equilibrium with progeny	0.01 ppm / 200 pCi/g	≤2000 pCi/g
Thorium-230 (with no progeny)	0.1 ppm / ≤2000 pCi/g	
Any mixture of Thorium and Uranium	Sum of ratios ≤ 1[****]	≤2000 pCi/g

Table 2: Naturally Occurring Radioactive Material Other Than Source Material Uniformly Dispersed* in Soil or Other Media**

Status of Equilibrium	Maximum Concentration of Parent Nuclide	Sum of Concentrations of Parent and All Progeny Present***
Radium-226 or 228 with progeny	222 pCi/g	≤2000 pCi/g
Lead-210 with progeny (Bi & Po-210)	666 pCi/g	≤2000 pCi/g
Any other NORM		≤2000 pCi/g

Table 3: Accelerator Produced Radioactive Material

Acceptable Material	Activity or Concentration
Any accelerator produced radionuclide the half-life of which is ≤3 years. Longer half-life materials may only be accepted based on IDEQ review and approval of a specific proposal.	All materials shall be packaged in metal packages, metal drums or metal boxes meeting the USDOT Type A package requirements. Any packages containing iodines or volatile radionuclides will have lids or covers sealed to the container with gaskets. Contamination levels on the surface of the packages shall not exceed those allowed at point of receipt by USDOT rules. Gamma or x-ray radiation levels may not exceed 10 millirem per hour anywhere on the surface of the package. All packages received shall be directly disposed in the active cell. All containers shall be certified to be 90% full.

*Average over conveyance or container. The use of the phrase "over the conveyance or container is meant to reflect the variability on the generator side. The concentration limit is the primary acceptance criteria.

**Other Media does not include radioactively contaminated liquid (except for incidental liquids in soils or other materials).

***Defuse waste with a total concentration (sum of concentrations of all radionuclides present) which is 2000 pCi/g or less may be accepted at the site (i.e., the controlling limits is 2000 pCi/g).

**** $\frac{\text{Conc. of U in sample}}{\text{Allowable conc.of U}} + \frac{\text{Conc. of Th in Sample}}{\text{Allowable conc. of Th}} \leq 1$

Table 4: NRC Exempted Products, Devices or Items

Exemption 10 CFR Part	Product, Device or Item	Isotope, Activity or Concentration
30.15	Timepieces, lock illuminators, balances, auto shift quadrants, marine compasses, thermostat dials & pointers, internal and external calibration sources for radiation measurement devices, spark gap irradiators.	Various isotopes and activities as set forth in 30.15
30.16	Resins containing Sc-46 for sand consolidation in oil wells	Activity by Manufacturing License. Surface radiation level must not exceed 10 millirem/hr.
30.19	Self-luminous products containing tritium, Kr-85, H-3 or Pm-147	Activity by Manufacturing license
30.20	Gas and aerosol detectors for protection of life and property from fire	Isotope and activity by Manufacturing license
30.21	Capsules containing C-14 urea for *in vivo* diagnosis of humans	Carbon-14, one microcurie per capsule
40.13(a)	Unimportant quantity of source material: see table above	≤0.5% by weight source material
40.13(b)	Unrefined and unprocessed ore containing source material	2,000 Ci/gm (source material plus progeny)
40.13(c)(1)	Source material in incandescent gas mantles, vacuum tubes, welding rods, electric lams for illumination	Thorium and uranium, various amounts or concentrations, see rules
40.13(c)(2)	(i)Source material in glazed ceramic tableware	≤20% by weight
	(ii) Piezoelectric ceramic	≤2% by weight
	(iii) glassware not including glass brick, pane glass, ceramic tile, or other glass or ceramic used in construction	≤10% by weight
40.13(c)(3)	Photographic film, negatives or prints	Uranium or Thorium
40.13(c)(4)	Finished product or part fabricated of or containing tungsten or magnesium-thorium alloys. Cannot treat or process chemically, metallurgically, or physically.	≤4% by weight thorium content
40.13(c)(5)	Uranium contained in counterweights installed in aircraft, rockets, projectiles and missiles or stored or handled in connection with installation or removal of such counterweights.	Per stated conditions in rule
40.13(c)(6)	Uranium used as shielding in shipping containers if conspicuously and legibly impressed with legend "CAUTION RADIOACTIVE SHIELDING– URANIUM" and uranium incased in at least 1/8-inch thick steel or fire resistant metal.	Depleted Uranium
40.13(c)(7)	Thorium contained in finished optical lenses	≤30% by weight thorium, per conditions in rule.
40.13(c)(8)	Thorium contained in any finished aircraft engine part containing nickel-thoria alloy.	≤4% by weight thorium, per conditions in rule.
32.11, 32.18, 40.41	Other materials, products or devices exempted from NRC regulation by rule, order, license, license condition or letter of interpretation may only be accepted based on IDEQ review and approval of a specific proposal.	IDEQ will review for approval any other materials, products, or devices exempted from the NRC not already specified in this modification. Approval of this material will not require a formal modification.

Section B – Waste Characterization

This waste was generated by the partial demolition of the interior of Building 401 at the Niagara Falls Storage Site, Lewiston, NY. This building debris is contaminated with asbestos and may be also contaminated with low-level radioactive residual from this FUSRAP site. This waste is not hazardous except that it contains asbestos. There are no known chemicals or materials commingled with this waste. There are no EPA codes, land disposal prohibitions, hazardous waste exclusions, extensions, exemptions, effective dates, variances or delistings associated with this waste. There are no chemical analytical results for this waste because it was a part of a building and not associated with any known chemical processes. There is no product information, treatment standards or MSDS associated with this waste. This waste may contain some radioactive residuals from the processing of ore for its uranium content at the facilities not licensed by the NRC at the time the Uranium Mill Tailings Recovery Act was enacted in 1978 or thereafter.

Section E – Chemical Laboratory Analysis

Chemical laboratory analysis does not apply to this material because it is construction debris and is not likely to have had contact with any chemical constituents. Attached is the laboratory analytical data confirming the presence of asbestos and also the field radiation screening results collected at the same time as the suspected ACM building material sample were collected for confirmation analysis. Additionally, a composite sample of the ACM materials, including wallboard, floor tile and piping insulation was collected on 3/7/02 and forwarded to US Ecology for TCLP-Metals analysis.

No samples were collected for the purpose of TCLP-VOC or TCLP-SVOC analysis because the composition of these ACM building products would not allow an accurate representation of VOCs and SVOCs through laboratory analysis. There is no collection and compositing process available that would not release these chemicals during the crushing and grinding required to appropriately consolidate and pack these materials into a sample jar.