

# Former Generator Building ACTION PLAN



## Koyukuk, Alaska

Prepared by  
Yukon River Inter-Tribal Watershed Council  
Brownfields Tribal Response Program  
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September 30, 2008

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## INTRODUCTION

In the spring of 2008, Koyukuk Tribal Council applied for an Environmental Site Assessment for the Former Generator Building site through the Yukon River Inter-Tribal Watershed Council (YRITWC) Brownfields Program. Based on the hazards posed to human health and the environment, the site was ranked as a top priority and selected to receive a *Phase I and Limited Phase II Environmental Site Assessment* and this *Action Plan*.

The EPA defines a brownfield as 'real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant or contaminant.'

The information contained in this Plan is based on the Phase I and Limited Phase II ESA, communication with the Koyukuk Tribal Council Environmental Department, interviews with local residents, and communication with the Alaska Department of Environmental Conservation Brownfield State Response Program.

## PURPOSE

This document is an Action Plan, with the general purpose of providing the Koyukuk community with relevant information to inform future decisions regarding the Former Generator Building site. This document will provide site specific background information, summarize major findings of the Environmental Site Assessment, outline future recommended actions, and identify potential funding opportunities.

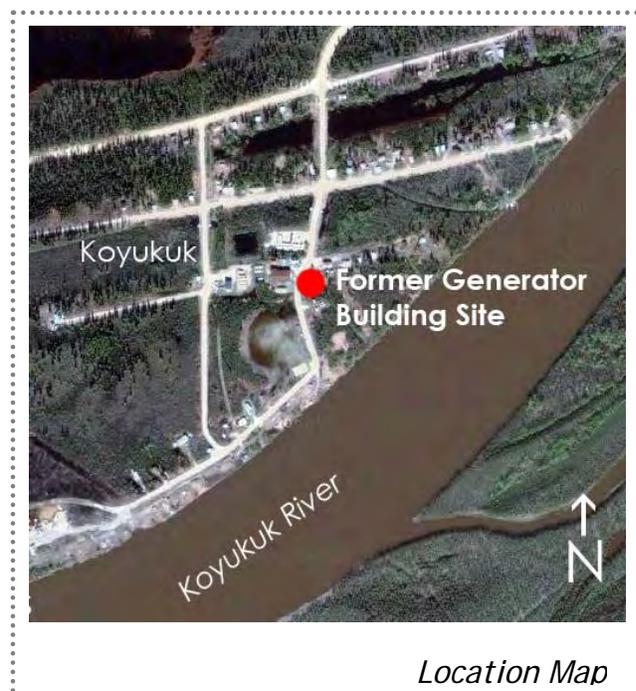
Sections in this Action Plan Include:

- Site History
- Phase I and Limited Phase II Environmental Site Assessment findings (BGES)
- Recommended Actions
- Potential Funding Opportunities
- Attachments

## 1. SITE HISTORY

In the spring of 2008, the Koyukuk Tribe's application to YRITWC for assessment of the Former Generator Building site was chosen to receive a Phase I and Limited Phase II Environmental Site Assessment. YRITWC hired Braunstein Geological & Environmental Services, Inc (BGES) to complete the work, and traveled with an environmental professional on July 21 to the village to participate in assessment activities.

The Former Generator Building site is centrally-located in the village of Koyukuk, adjacent to other community buildings. The Tribal Office is just to the north, and the school and washeteria are across Vista Street to the northwest. The land is owned by the City of Koyukuk, and contains the



Former Generator Building and part of the old pipeline that previously connected the building to the fuel storage area. This site is currently abandoned, but does experience some traffic on Vista Street, an adjacent road.

Local residents believed the generator building had been constructed in the 1980s and had operated until the new city power plant was built in approximately 2002. Shanda Kriska, Tribal Environmental Assistant, indicated that two overfill accidents, in January and March of 2002, had been the primary release events at the subject property. She also stated that historically, used oil was stored in drums and was occasionally disposed of by burning in an open-top drum resulting in some of the oil spilling onto the ground. She believed some of these events may have been addressed by hand-digging to remove contaminated soils. Ms. Kriska also stated that during the spring melt that a pond formed in the low-lying southern area of the subject property and exhibited a sheen and hydrocarbon odor.

## 2. PHASE I AND LIMITED PHASE II ENVIRONMENTAL SITE ASSESSMENT FINDINGS (BGES)

After interviewing Koyukuk Tribal staff, Shanda Kriska, Hazel Lolnitz, and Cindy Pilot, BGES and YRITWC staff gathered information through records review, on-site interviews, physical investigation of site, and limited soil sampling of the Former Generator Building site.

The following is a list of key findings and hazardous materials as indicated in the Report produced by BGES:

- Multiple drums - Five drums were located on a porch on the west side of the building and five more were located in a drainage ditch along Vista Street. Four of these drums appeared to be empty at the time of our reconnaissance, but at least two had apparently discharged their contents onto the ground in the spring of 2008. One drum remains filled with motor oil and has the potential to overflow and spill into the drainage ditch.



- Contaminated soil - Soil samples taken from the north of the building all exhibited readings of 0 parts per million (ppm). Soil samples taken from the stained soil near the spilled drums yielded results of 0 ppm or 1 ppm. No stains were identified as part of the pipeline. Contamination in the area to the south of the building appeared to extend nearly to the depth at which permafrost was encountered, approximately 6 feet below grade. Through laboratory analysis, contamination exceeding ADEC cleanup levels were positively identified to the south of the generator building and in near-surface soils associated with the drum releases. Contamination exceeding ADEC cleanup levels appears to extend a



minimum of 30 ft to the south and 25 feet to the east of the building, to depths of at least 6 feet below grade, delineating an estimated volume of approximately 200 cubic yards of soil.

Clean-up of contaminated soil may include placing soil in a long-term biocell designed to store and treat the material. Fertilizer could be added to the soils to promote biological degradation as well as a ventilation system to actively or passively promote both volatilization and biological degradation. Soils with high levels of residual range organics (RRO) should be stored and monitored separately because they do not break down as readily and may require additional active remediation techniques.

- Building hazards - Potentially hazardous building materials within the Former Generator Building may include polychlorinated biphenyls (PCBs) in some fluorescent light ballasts, mercury in some thermostats, fluorescent light tubes and lamps, pilot light sensors, electric switches, and space heaters. The building may contain asbestos-containing materials or lead-based paint which would require proper disposal techniques.

### 3. RECOMMENDED ACTIONS

#### STEP 1 → Site Control

- a) Using a poly drum, a HAZWOPER certified individual should contain the above identified drum that has a potential to spill;
- b) Post signs and participate in community meetings to educate the public about the hazards and safety issues of the site;
- c) If children play near the site, the area should be blocked off by using tape or boarding the building.

#### STEP 2 → Planning for Clean-up

- a) Hold a community meeting to determine property reuse goal\*;
- b) Establish planning committee (city, tribe, individuals, partnering organizations);
- c) Work and meet regularly with planning committee and partnering organizations to develop clean-up plan;
- d) Identify resources:
  - *Local*: equipment, HAZWOPER trained individuals, program staff, and available land to place contaminated soil
  - *Regional*: partnering organizations, funding agencies
  - *State/Federal*: ADEC and EPA assessment and/or clean-up funding
- e) Follow-up with ADEC management plan and/or clean-up for summer 2009;
- f) Proceed with clean-up and demolition of building, and ensure clean-up standards are met prior to reuse construction.

#### STEP 3 → Planning for Reuse

- a) Work with planning committee and partnering organizations to develop reuse plan;
- b) Target potential funding agency and participate in application process for funds.

\*A reuse goal initially expressed by the Tribe was to construct a new clinic facility on the property, but it was not clear if the community had reached consensus on this goal. To make this site successful, the future redevelopment should be discussed further within the community to establish a re-use that will address the needs of local residents. This will also

help focus funding efforts and determine clean-up standards.

#### 4. POTENTIAL FUNDING OPPORTUNITIES

##### *Clean-up Funding:*

##### EPA Cleanup Grants

Cleanup grants provide funding for a grant recipient to carry out cleanup activities at brownfield sites. Eligible entities include private landowners, cities, boroughs, and corporations (Alaska Tribes are ineligible). An eligible entity may apply for up to \$200,000 per site. These funds may be used to address sites contaminated by petroleum and hazardous substances, pollutants, or contaminants. Cleanup grants require a 20 percent cost share, which may be in the form of a contribution of money, labor, material, or services, and must be for eligible and allowable costs. A cleanup grant applicant may request a waiver of the 20 percent cost share requirement based on hardship. An applicant must own the site for which it is requesting funding at time of application or demonstrate the ability to acquire title. The performance period for these grants is two years.

[http://epa.gov/swerosps/bf/cleanup\\_grants.htm](http://epa.gov/swerosps/bf/cleanup_grants.htm)

##### Indian General Assistance Program (IGAP)

Considering that Koyukuk Tribe is an IGAP grantee, environmental staff should determine the possibility and extent to which IGAP funds may be used to assist in the demolition and clean-up of the property. Local hire is a priority for most contractors who would oversee the clean-up project, so funding for training local individuals, including HAZWOPER, may be possible.

##### *Re-Use Funding*

##### Denali Commission

For local health care, the typical rural community health facility is aging, small and inadequate to provide necessary services. In one of its earliest decisions, the Denali Commission designated rural health care as a top priority for Commission support and is continuing its work to provide safe and appropriate infrastructure which will improve health care delivery for rural Alaskans. This authority authorized the Denali Commission to plan, construct and equip health, nutrition and child care projects across the state. Potential projects include hospitals, health care clinics, and mental health facilities including drug and alcohol treatment centers. In 2000, the Commission identified rural primary care facility needs in more than 288 rural communities, and estimated the cost of needed rural primary care facilities to be \$253 million.

[www.denali.gov](http://www.denali.gov)

##### Indian Community Development Block Grant

The ICDBG Program provides eligible grantees with direct grants for use in developing viable Indian and Alaska Native Communities, including decent housing, a suitable living environment, and economic opportunities, primarily for low and moderate income persons.

<http://www.hud.gov/offices/pih/ih/grants/icdbg.cfm>

##### Alaska Community Development Block Grant

The goals of the Alaska Community Development Block Grant Program (CDBG) are to provide financial resources to Alaskan communities for public facilities and planning activities which address issues detrimental to the health and safety of local residents and to reduce the costs of essential community services. The program may also fund Special Economic Development

activities which result in the creation of jobs for low and moderate income persons. CDBG competitive grants are single-purpose project grants; maximum of \$850,000 per community. There are three basic funding categories: community development, planning and Special Economic Development. CDBG programs utilize the resources of the Community Development Block Grant program funded by the U.S. Department of Housing and Urban Development (HUD). Approximately \$2.5 million is available for competitive grants for the FFY 08 grant cycle.

<http://www.commerce.state.ak.us/dca/grt/blockgrants.htm>

#### USDA Rural Development Housing and Community Facilities Program

The Rural Housing Community Facilities Program offers direct and guaranteed loans and grants designed to finance and facilitate the development of over 80 different types of essential community facilities serving rural areas. These facilities include, but are not limited to, hospitals, elderly care facilities, child care centers, fire and rescue stations, vocational and medical rehabilitation centers, schools, and public transportation infrastructure. Special emphasis is given to projects serving Native American communities, Empowerment Zones, Enterprise and Champion Communities, and Pacific Northwest Initiative Communities. [http://www.rurdev.usda.gov/rhs/common/non\\_profit\\_intro.htm](http://www.rurdev.usda.gov/rhs/common/non_profit_intro.htm)

## ATTACHMENT A: RESOURCES

### Yukon River Inter-Tribal Watershed Council

Brownfields Tribal Response Program

Sonta Hamilton, Program Manager - [shamilton@yritwc.org](mailto:shamilton@yritwc.org)

Rose Hewitt, Environmental Technician - [rhewitt@yritwc.org](mailto:rhewitt@yritwc.org)

815 2<sup>nd</sup> Avenue, Suite 201

Fairbanks, AK 99701

phone: (907) 451-2530

fax: (907) 451-2534

<http://yritwc.org/Departments/SustainableLands/tabid/61/Default.aspx>

Backhaul Program

Stephen Price, Program Manager - [sprice@yritwc.org](mailto:sprice@yritwc.org)

725 Christensen Drive, Suite 3

Anchorage, AK 99501

Phone: (907) 258-3337

<http://yritwc.org/Departments/Backhaul/tabid/62/Default.aspx>

### Alaska Department of Environmental Conservation

Brownfield State Response Program

John Carnahan, Coordinator - [john.carnahan@alaska.gov](mailto:john.carnahan@alaska.gov)

Sonja Benson, Environmental Program Specialist - [sonja.benson@alaska.gov](mailto:sonja.benson@alaska.gov)

610 University Avenue

Fairbanks, Alaska 99709

phone: (907) 451-2156

fax: (907) 451-2155

<http://www.dec.state.ak.us/spar/csp/brownfields.htm>

**ATTACHMENT B:**

*How to Dispose of Wastes from Building Demolition, Renovation and Construction Projects*  
(ADEC)

# How to Dispose Of Wastes from Building Demolition, Renovation and Construction Projects

This guidance document will give building owners, inspectors and contractors an idea on how to best handle the materials and wastes involved in building demolition, renovation and construction. Contractors can save money and time, and provide a safer environment for workers and the public, by giving proper attention to the wastes generated by a project **before** demolition or renovation begins.

## What's Inside:

- The Building Survey: The First Step?
- What if a Building Has Asbestos?
- What About Hazardous Waste?
- What if I Want to Burn The Woody Debris?
- How Do I Dispose of Typical Waste?
- What Wastes Can be Disposed of Without an ADEC Solid Waste Permit?
- Contact Information.

## The Building Survey - The First Step

Identifying all the wastes that will be generated is the first step. This can most easily be done by conducting a building survey. Once identified, each waste can then be handled according to appropriate state and federal regulations and best management practices. You will also save money by disposing of different types of waste in the most appropriate manner. Many ways exist to do a survey, and you should develop a way that best fits your needs. It doesn't need to be complicated. It's simply an identification of the type of waste and the amount you expect your project to generate. At a minimum, identify and quantify all of your hazardous materials, including asbestos. While you're at it, you can also easily determine the amounts of all other wastes that will be generated.

Removal of asbestos and hazardous wastes **after** demolition may be difficult and expensive. Also, federal regulations require that buildings be surveyed and asbestos removed prior to demolition or renovation. It is also a good idea to look at other waste material. By knowing the types and quantities of all the waste that will be generated, you can plan ahead and figure out how to dispose of the waste in the quickest, cheapest, and safest manner. Even though it may be difficult to correctly identify all the material, a thorough investigation can save you many headaches later.

Once you have surveyed your project and know all the types and amounts of material that will be generated, you can determine what can be recycled, burned, or disposed of at a local facility. The most common methods for disposing of different wastes will be discussed in this guidance document. However, this guidance will not explain your recycling options. Please contact your local recycling facility for that information. Some common recyclable wastes are piping, conduit, fixtures, timbers, glass, and doors.

After you have identified the types of wastes the project will generate, you must contact the EPA. Federal law requires you to contact them before demolition begins, regardless of the type of waste involved. Contact numbers are listed on the last page.

### What if a Building Has Asbestos?

Regulated Asbestos Containing Material (RACM) must be removed prior to the demolition of a building and disposed at a landfill permitted to accept asbestos waste.

RACM waste is any asbestos-containing material that contains more than 1% asbestos, and, when dry, can be crumbled or reduced to powder by something as minor as hand pressure. If it can be crumbled or reduced to powder relatively easily, it is called "friable."

Non-RACM waste, on the other hand, is asbestos-containing material that is not friable or is not likely to become friable during the demolition or renovation activities. In other words, it cannot be crumbled, pulverized, or reduced to powder by hand pressure or by the demolition or renovation process when dry. Non-RACM waste can be disposed of at a landfill that is permitted for general construction and demolition waste or at a municipal solid waste landfill that is allowed to accept non-RACM asbestos under the conditions of its permit.

In a rural area without a nearby permitted landfill, a project may qualify for a general permit from ADEC. A general permit may allow for the one-time disposal of asbestos. General permits are described in greater detail in the section "How Do I Dispose of Demolition Waste?" ADEC Solid Waste Program staff can help you determine if this is an option. Contact information is listed on the back.

You will typically find asbestos-containing material in anything that was intended to retard fires. Specifically, look at door gaskets, duct insulation, and the tape at duct connections of furnaces, boilers and wood stoves. Any hot water pipes inside walls, at tees, valves, elbows, and cross connections should also be checked. Wall board, mastic, acoustical tile or sprayed-on ceilings, roof felt and shingles, window putty, cement asbestos board siding and undersheeting, electrical equipment such as lamp sockets, outlet and switch boxes, recessed lighting units and old-fashioned wiring insulation, and older electrical appliances may be additional sources for asbestos-containing material.

It is important in older facilities such as HUD housing, FAA buildings, and military facilities to survey the flooring. Many floors had 1½ to 3 inches of material stacked on top of one another. Asbestos-containing material may be in some or all of the layers.

No asbestos waste may be burned – it doesn't burn, just becomes airborne. Therefore, it is important to remove all asbestos if your intention is to open-burn debris after a building is demolished. If by any chance non-friable asbestos-containing material catches fire, it becomes regulated by EPA under the National Emission Standards for Hazardous Air Pollutants (NESHAP) program.

Once you have identified your RACM and hazardous wastes, you must arrange for a certified contractor to locate and remove it. The contractor will package and ship it to a specialized facility that is permitted for RACM waste. Contractors who are certified to remove RACM waste can be found in the telephone directory, usually under environmental/ecological services.

Remember to notify EPA before any asbestos removal or building demolition begins. The EPA requires notification ten working days in advance so they have an opportunity to inspect the job. They can go into greater detail as to what is or is not considered regulated asbestos material and hazardous waste. The regulations can be complex, and EPA welcomes the opportunity to provide clarification and assistance.

### What about Hazardous Waste?

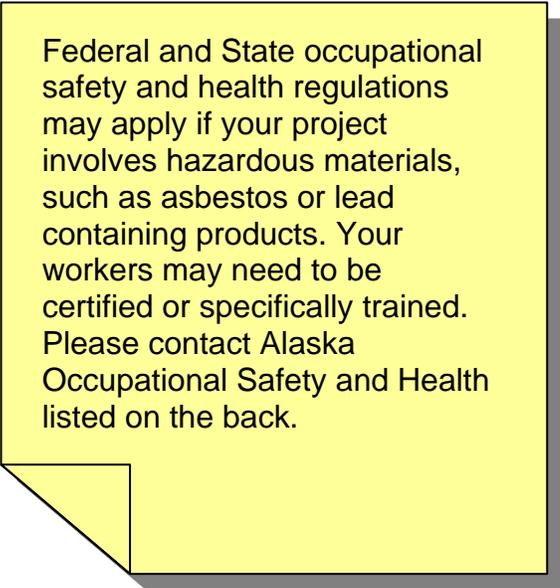
The EPA defines what is considered hazardous waste and how it must be disposed of. For more detailed information about what they consider hazardous waste please contact the EPA using the phone numbers provided on the back.

Hazardous wastes commonly found in a demolition project are:

- Some lead painted materials
- Some fluorescent tubes and spent incandescent bulbs
- Lead pipe and solder
- Mercury switches
- Mercury thermostats
- Lead based paint
- Some liquid paint wastes
- Unused solvent based paints
- PCB containing transformers (classified as toxic)
- PCB-containing light ballasts (classified as toxic)

If you are demolishing a building which has an air conditioning system, you must recover the refrigerant, which may only be done by a certified technician. Venting refrigerant into the air is prohibited.

Burning hazardous wastes or materials that may emit a toxic gas when burned is prohibited. This includes such things as certain chemicals, tars, linoleum, plastic, foam insulation, rubber, toxic waste, lead pipes, and PVC plastic piping.



Federal and State occupational safety and health regulations may apply if your project involves hazardous materials, such as asbestos or lead containing products. Your workers may need to be certified or specifically trained. Please contact Alaska Occupational Safety and Health listed on the back.

When determining the amount of hazardous waste to be disposed of, you must include all the hazardous building materials generated on site, plus the hazardous waste generated by the products you may be using in the process of removing building materials.

Most landfills in Alaska cannot accept hazardous waste from building construction and demolition. Small quantities of hazardous waste (less than 220 pounds per month per site) can be disposed of at a permitted Class I or Class II landfill. Contact your local landfill to find out whether it is a Class I or Class II landfill and is permitted to and is willing to accept "conditionally exempt small quantity generator" waste.

If your local landfill does not have a Class I or Class II permit, you may be able to transport the waste to a near by Class I or Class II landfill for disposal, if that landfill accepts hazardous waste

from outside its municipal boundary. Contact the landfill and/or ADEC Solid Waste Program for more information.

If your demolition project produces more than 220 pounds of hazardous waste in a month, you will need to ship this waste out of state to an EPA-registered treatment, storage and disposal facility.

### What if I Want to Burn The Woody Debris?

Controlled burning of clean, woody debris from construction or demolition projects is allowed in most areas of Alaska, but it needs to be conducted in a manner that doesn't create a nuisance or health hazard to the local residents. "Clean woody debris" means wood that has not been treated with any metallic paint (such as cadmium or lead) or weatherizing preservative (such as pentachlorophenol or creosote).

It is important to note that burning is not complete disposal because the ash and unburned debris from the burning of construction and demolition waste must be disposed of at a permitted landfill. You may be required to test the ash and debris in order to verify that it is non-hazardous (see previous section for hazardous waste management).

If burning greater than 40 acres of landclearing debris, or if black smoke will be produced, you will need a permit from ADEC's Air Quality Program. Ash from the burning of landclearing waste is not a solid waste and is therefore not required to go to a landfill.

Some areas in Alaska require coordination with and permits from the local authorities. For instance, if your project is located in Fairbanks, Anchorage, Ketchikan, Homer or Juneau, you need to contact the local government authorities for approval. In some areas, the Alaska Department of Natural Resources, Division of Forestry may also require a burn permit. It is always wise to contact the local fire department to let them know you will be burning in the area.

To learn more about burning woody debris in your project area, please contact the ADEC Air Quality Program listed on the back.

### How Do I Dispose of Non-Hazardous Waste?

If the waste you generate is not an EPA-regulated hazardous waste and is not exempt from state permit requirements (see next section,) you must dispose of it at a permitted solid waste landfill. This may be an existing facility or a monofill permitted for this project. A solid waste permit ensures that waste is disposed at a suitable location and in a way that will minimize the likelihood of pollution or associated health problems. If you plan to take waste to a permitted facility, you should contact them directly. If you wish to develop a monofill, contact the nearest ADEC Solid Waste program office to obtain an "inert waste monofill" or "asbestos monofill" permit. Program staff will discuss your situation with you and give you information on how to prepare a permit application. A permit review and public notice process will begin after the completed application and associated fee is received at the ADEC solid waste program office.

In some cases, such as a one-time disposal operation for a small volume of waste that is located in a remote area, an applicant may choose to obtain a "general permit." General

permits take less time and money to obtain than an individual permit. Two types of general permits are available from ADEC for construction and demolition wastes:

**General Permit No. SWG0301000** is issued for a one-time disposal of asbestos-containing waste. The waste must be generated by on-site asbestos removal operations and be less than 250 cubic yards in volume. This permit may only be used for disposal of asbestos wastes in locations which do not have year-round road access to the national highway system. If your situation does not fit these conditions, you will need to obtain an individual asbestos monofill permit. You should also contact EPA to determine if other regulations apply.

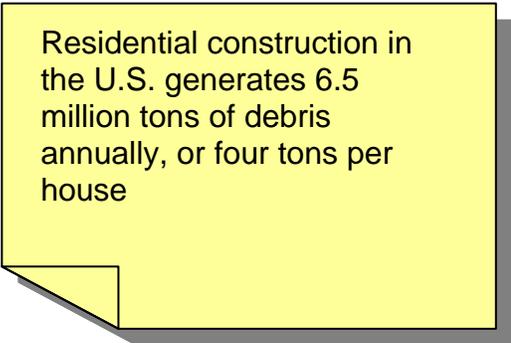
**General Permit No. SWG0303000** is issued for a one-time disposal of building debris that does not include asbestos or non-salvageable scrap metal debris and does not exceed a total of 1,000 cubic yards of waste. This permit may only be used for disposal of wastes in locations that are more than 100 miles from the nearest permitted landfill that can be reasonably accessed or if all reasonably-accessed landfills within 100 miles refuse to accept the waste. If your situation does not fit these conditions, you will need to acquire a state inert waste monofill permit. Contact solid waste program staff.

What Wastes Can be Disposed of Without an ADEC Solid Waste Permit?

Most building construction and demolition debris is considered "low risk," which means that it has little or no potential to cause pollution problems. Some wastes such as concrete, brick, and mortar are considered "very low risk" and are usually not regulated. This "exempt" waste does not need to go to a permitted landfill, as long as it is not mixed with other wastes.

Examples of exempt wastes that you might encounter during demolition, renovation or construction projects include:

1. Land clearing waste, including excavated dirt, rock soil, butt ends, limbs, stumps or other foliage
2. Portland cement type concrete and associated steel rebar that can't be easily removed
3. Crushed glass except for television tubes, fluorescent light tubes, or computer monitors
4. Crushed asphalt pavement used in:
  - a. A building pad or parking area as road base, or pavement, or
  - b. As a material to construct a containment berm for a tank farm



Residential construction in the U.S. generates 6.5 million tons of debris annually, or four tons per house

Contact the ADEC Solid Waste Program at the office nearest you to learn more about the different available disposal options and information on exempted waste.

Contact Information:

Asbestos

EPA, Alaska Operations Office, 907-271-3688 or 800-781-0983

EPA, Seattle, 206-553-4226

Lead Paint

EPA at 206-553-1171

Refrigeration

EPA, Seattle 206-553-4226

Hazardous Waste, Recycling

EPA, Alaska Operations Office, 907-271-6329 or 800-781-0983

Burning, Air Quality

ADEC's Air Quality Program

Interior: 907-451-2139

Southcentral: 907\_269-7574

Southeast and Aleutians: 907-465-5122

Landfill Disposal Regulations

ADEC Solid Waste Program office nearest you:

Juneau: 907-465-5160

Anchorage: 907-269-7802

Fairbanks: 907-451-2108

Alaska Occupational Safety and Health (AKOSH)

Anchorage: 907-269-4940

Toll Free: 1-800-770-4940

On The Web

ADEC, Division of Environmental Health, Solid Waste Program:

<http://www.dec.state.ak.us/eh/sw>

ADEC, Division of Air and Water Quality, Open Burning Program:

<http://www.dec.state.ak.us/air/ap>

EPA:

<http://www.epa.gov>