



## Company History

Since our very first radiological project at the DOE's Rocky Flats Site in 2002, and our initial office in Salt Lake City, UT, Cavanagh Services Group has continued to grow, in a progressive but controlled manner, to specifically meet our client's environmental project needs. Today, we are proud to support all our clients from six offices strategically located across the United States.

Cavanagh is a competitive, financially strong, women-owned company that provides project management, logistics services, and technical support for the environmental cleanup and clean-energy industries. Cavanagh's key business focus is providing integrated services using our own assets.

## Small Business



Cavanagh Services Group is SBA certified:

- 8(a) - exit date 11/08/14
- Small Disadvantaged Business (SDB)
- Woman-Owned Small Business (WOSB)
- Small Business



Cavanagh is also a Women's Business Enterprise National Council (WBENC)-Certified Women's Business Enterprise

Cavanagh's outstanding "Zero Mission" safety record on supporting government and commercial cleanup and closure projects with onsite project management, remediation, logistics, packaging, container management, transportation, and treatment and disposal speaks for the quality of service received from utilizing Cavanagh Services Group.

**Cavanagh has the resources to handle your large-scale projects at every level. We provide full turnkey services that include site management, product and materials transportation, and waste management. We improve services that include handling industrial, hazardous, and mixed waste. We improve life-cycle cost savings, project productivity, and schedule accuracy while maintaining safety and regulatory compliance.**

Cavanagh's management has executive industry experience working in the Department of Energy (DOE), Department of Defense (DOD), and Environmental Protection Agency (EPA) remediation markets that has resulted in a widespread network of generators, industry partners, regulatory contacts, and other beneficial relationships.



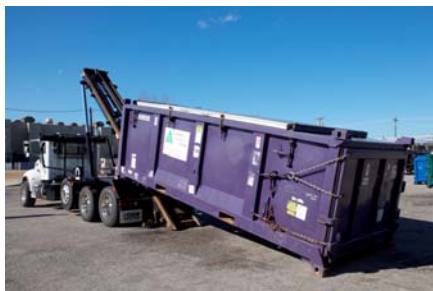
## Project Experience

### KEY CAVANAGH PROJECT EXPERIENCE

- DOE-Hanford Plateau Remediation Project
- DOE-Savannah River Site
- DOE-Los Alamos National Lab
- DOE-Washington Closure Hanford
- DOE-Argonne National Lab D&D
- DOE-Rocky Flats Cleanup Project
- DOE-Oak Ridge ETTP Cleanup Project
- DOE-Y-12 Plant
- DOE-Mound Plant Cleanup
- DOE-Nevada Test Site Mixed Waste
- DOE-Columbus Cleanup Project
- DOE-Idaho AMWTP
- DOE-Brookhaven National Lab
- EPA-Starmet Superfund Site
- EPA-Continental Steel Superfund Site
- EPA-Welsbach Superfund Site
- USACE-Painesville, OH FUSRAP Project
- USACE-Laughlin AFB
- USACE-Schofield Barracks
- USACE-Ft. Wainwright
- USACE-Mare Island
- DOD-Hunters Point Naval Air Station
- DOD-Brooks Air Force Base
- DOD-Twin Cities Army Ammunition Plant
- DOD-Kelly Air Force Base
- DOD-Eglin Air Force Base
- DOD-Jacksonville Naval Air Station
- DOD-Robins Air Force Base
- ABB/CE, CT
- Humboldt Bay Nuclear Station, CA
- Maine Yankee Nuclear Plant, ME

### MAJOR CAVANAGH CUSTOMERS

- Accelerated Remediation Company (ARC)
- AECOM
- ALCOA
- Argonne National Laboratory
- Bechtel Jacobs Company, LLC
- B & W Technical Services
- CH2M Hill
- Clauss Construction, Inc.
- CWI
- E2 Closure Services, LLC
- EnergySolutions, LLC
- Fluor
- General Electric
- Los Alamos National Laboratory
- MACTEC, Inc
- Navarro Engineering
- New World Technology
- North Wind, Inc.
- NS Tech
- Portage
- Safety & Ecology Corporation (SEC)
- Severson Environmental Services, Inc.
- Siempelkamp
- Studsvik, Inc.
- US Army Corp - Buffalo District
- US Army Corp – Huntsville Center
- US Army Sustainment Command
- US Department of Energy
- URS/Washington Safety Management Solutions LLC (WSMS)
- Waste Control Specialists (WCS)
- Washington Closure Hanford





## QUALITY

Cavanagh's Quality Assurance Program is based on the quality standards of NOA-1 2008, and is also maintained to comply with the ten Quality Assurance criteria specified in 10 CFR 830.122. Cavanagh's Quality Assurance Program defines 18 areas of administrative control from management through purchasing, inspections, testing, control of non-conformances, and internal and external evaluations. Cavanagh utilizes its Quality Assurance Program to ensure the compliance of specification packaging and transportation services and safe, thorough onsite project management. The implementing procedures are utilized to provide the appropriate instruction and administrative controls.

The Cavanagh Quality Program includes detailed implementing procedures for the review and approval of vendor supplied equipment, materials, and services. Cavanagh will conduct equipment inspections prior to final selection for use on the project in accordance with requirements contained in its established Quality Assurance Program.

- ☑ **NOA-1 2008 Quality Assurance Program (10 CFR 830.122)**
- ☑ **Onsite DOE and DOD Contractor at multiple project sites**
- ☑ **Regulatory Compliance Oversight**
- ☑ **Nevada Test Site – Approved Procedures**
- ☑ **Department of Transportation (DOT), Federal Railroad Administration (FRA), Association of American Railroads (AAR), and Department of Energy (DOE) compliance with operations and equipment**
- ☑ **DCAA-Approved Accounting System and Rates**

## **SAFETY FIRST** .....

***In business since 2002, Cavanagh has never had a reportable or recordable injury or accident!***



## PERMITS AND LICENSES

Cavanagh possesses the licenses and certified personnel to provide compliant packaging, shipment, conveyance inspection, as well as all required DOT documentation and EPA radiological and hazardous materials transporter licensing.

- STATE OF UTAH RADIOACTIVE MATERIALS LICENSE
- U.S. DEPARTMENT OF TRANSPORTATION HAZARDOUS MATERIALS LICENSE
- U.S. ENVIRONMENTAL PROTECTION AGENCY IDENTIFICATION NUMBER
- STATE OF UTAH GENERATOR SITE ACCESS PERMIT (GSAP)
- STATE OF TENNESSEE LICENSE TO SHIP PERMIT

## AWARDS

Cavanagh Services Group has been recognized multiple times for its excellent performance and fundamental focus on Customer care. Most recently, Cavanagh was named as one of Utah Business Magazine's 2011 "Fast 50" which highlights the 50 fastest-growing companies in Utah based on five years of compound annual growth. In 2010, Sue Rice, Cavanagh President, was selected by Ernst & Young LLP as one of 11 women entrepreneurs nationwide for the prestigious "*Entrepreneurial Winning Women*" program; an executive leadership program.

Cavanagh also has been honored with the following awards:

- 2009 US Department of Energy "*8(a)/Small Disadvantaged Business of the Year Award*"
- 2007 Bechtel Jacobs Company "*HUBZone Subcontractor of the Year Award*"
- 2007 Mountain West Capital Network Utah 100 — "*2<sup>nd</sup> Fastest-Growing Company in Utah Award*"
- 2007 Entrepreneur Magazine "*50 Fastest-Growing Women-Owned Companies Award*"
- 2006 Mountain West Capital Network "*Emerging Elite Award*"
- 2006 Office Depot "*National Business Woman of the Year Award*"
- 2005 US SBA "*Utah Small Business Person of the Year Award*"
- 2005 Mountain West Capital Network "*Emerging Elite Award*"
- 2003 Utah Business Magazine "*Risk Takers Award*"





## Transportation and Logistics

Cavanagh Services Group has transported material from over 70 different projects and over 7 million miles with an excellent safety record. We perform widespread logistics management and transportation services throughout the US. We apply our expertise to analyze the best logistics approach to ensure optimal project performance. Transportation costs are often a large percentage of the project costs yet our logistic services consistently save our Customers 30 – 40% of their project cost.

Cavanagh manages logistics for both rail and truck transportation. Cavanagh maintains long-standing, direct transportation contracts with all the Class 1 major railroads, i.e., Union Pacific, CSXT, and Norfolk Southern. Cavanagh also has strong contractual relationships with licensed and qualified trucking firms across the country.

### **PLANNING AND COORDINATION OF TRANSPORTATION ACTIVITIES**

Cavanagh has developed and maintains a Transportation Security Plan in compliance with 49 CFR Subpart – I, §172.800. Cavanagh has confirmed that the trucking firms and carrying railroads have implemented and maintain security plans compliant with the applicable regulations.

### **SHIPPING/COORDINATION OF SHIPMENTS AND EQUIPMENT**

Cavanagh provides its experienced DOT-certified shippers onsite to prepare all shipping documentation to ensure safe, compliant transport of all waste packages and shipments. Cavanagh's shippers also perform the necessary marking, labeling and inspections to ensure compliance with all DOT and site regulations.

Cavanagh coordinates and expedites all aspects of the transportation activities in order to meet customers' targeted packaging, transportation, and shipping objectives. In order to support the timely delivery of shipments to the TSDF, Cavanagh conducts daily shipment tracking to monitor transportation progress and maintain anticipated schedules.

### **WASTE TRANSPORTATION AND TRANSLOADING OPERATIONS**

Cavanagh provides both truck and rail transportation services nationwide in support of remediation of government and commercial projects. Contracts with the major railroads and approved, certified Hazmat trucking firms are in place. Cavanagh has transported over 7 million miles without incident.

Cavanagh also provides transloading options for project sites without direct rail access. By utilizing truck for the transport of containers, bulk bags, and large components to a nearby rail siding, Cavanagh can provide the long-haul more economical rail transport to projects without direct rail service. Cavanagh can utilize dump truck, flatbed or roll-off truck for the local transport depending on the needs of the project.

### **COORDINATION WITH TREATMENT AND DISPOSAL FACILITIES**



## Technical Services

Cavanagh Services Group provides integrated hazardous, radioactive, and industrial waste management and technical services as an essential addition to our complete packaging and transportation services. Our focus is the design and implementation of the most cost-effective and regulatory compliant waste management solution for each Customer.

### **WASTE CHARACTERIZATION**

We prepare and implement Sampling and Analysis Plans and procedures in order to ensure compliant waste characterization on each project. The evaluation and interpretation of analytical results is used to ensure that proper hazardous waste determinations are made in compliance with applicable site, local, state, and Federal regulations.

### **DEVELOPMENT OF WASTE MANAGEMENT PLANS AND PROCEDURES**

In order to ensure that each project is executed in an efficient and compliant manner, project plans and procedures are developed in support of all of our waste management projects. From site characterization through disposal, our plans consistently guide project activities to successful conclusion.

### **REMEDIAL SERVICES**

We provide soil remediation services for small to large scale projects including excavation, sorting, and backfill.

### **DECONTAMINATION AND DECOMMISSIONING (D&D)**

With focus on safety, we provide deconstruction including demolition of contaminated buildings, underground structures, and foundations. This also includes decontamination and cleanup of project sites.

### **AUDIT AND COMPLIANCE SUPPORT**

Our knowledgeable and experienced staff works diligently to ensure that all work is completed safely and compliantly with the US Department of Transportation regulations as well as local guidelines and regulations. We can assist customers with internal DOT audits and help prepare plans and procedures in compliance with applicable DOT regulations.

### **PACKAGE DESIGN AUTHORITY AND EXPERTISE**

Cavanagh's staff include multiple highly skilled Design Authorities for Waste Packaging and Casks, Cargo Tanks, and IP/Type A packaging. This in depth industry knowledge allows us to support customers by providing the absolute most compliant packaging choice tailored for each specific project and waste type and material. From 55 gallon steel drums to standard bulk containers to IP-2 Overpack, to High Fissile Gram Containers, we know packaging and will help you to ensure all your packaging and container need are DOT compliant.

### **QUALITY ASSURANCE**

Cavanagh's Quality Assurance (QA) Program is NQA-1 and 10 CFR 830 compliant. Cavanagh has conducted Quality Assurance Audits, facility visits, and oversight on various disposal facilities and project sites. The Cavanagh QA Program ensures the compliance of specification packaging and transportation services and safe, thorough onsite project management. The implementing procedures



are utilized to provide the appropriate instruction and administrative controls. The Cavanagh QA Program includes detailed implementing procedures for the review and approval of vendor supplied equipment, materials, and services. Cavanagh will conduct equipment inspections prior to final selection for use on the project in accordance with requirements contained in its established QA Program.

## **WASTE SHIPMENT TECHNICAL SUPPORT AND MANAGEMENT**

Following waste characterization, we prepare waste profile documentation to ensure the successful receipt and disposal of waste at the selected disposal facility. On behalf of our Customers, we manage the waste acceptance process from start to finish with the treatment and/or disposal facility.

## **PACKAGING OF WASTE MATERIALS, CONTAINER MANAGEMENT, AND REMOVAL OF CONTAMINATED MATERIALS**

We work with our Customers to define and select the most efficient type of packaging for each project. We provide optimal packaging solutions, including the use of our highly efficient IP-1 Intermodal Containers, to ensure that all waste material is properly packaged and shipped off-site in a timely and safe manner.

## **TREATMENT AND DISPOSAL OF WASTE MATERIALS**

Based on our industry background, Cavanagh personnel have been involved with establishing some of the waste acceptance criteria for the key TSDFs and maintain in-depth knowledge of the requirements for waste treatment and disposal facilities. We bring this experience and efficiency to our Customers in providing a compliant and safe one-stop, "turnkey approach" that includes waste characterization/waste profiling, packaging, DOT inspections/manifesting, transportation, treatment and/or disposal.

## **REGULATORY COMPLIANCE**

Our staff of highly-trained and qualified personnel has extensive experience in the complete range of environmental, waste characterization, and transportation regulations including U. S. Environmental Protection Agency (USEPA), U.S. Nuclear Regulatory Commission (USNRC), U.S. Department of Energy (US DOE), and U.S. Department of Transportation (US DOT) regulations and requirements.



## Project Management

Cavanagh Services Group's Project Management team is a dynamic collection of professionals, comprised of the industry's top remedial project talent, tasked with safely, and successfully delivering some of the most complex corrective action projects across the US.

Cavanagh Services project management systems are built on the "best practices" methodology, combining the industry's demonstrated "best practices" and applying them to all elements of your project.

### ONSITE SHIPPING LOGISTICS

### PROJECT/PROGRAM MANAGEMENT

### PROJECT PROCEDURE PREPARATION

### WORK PLAN PREPARATION

### PROJECT CONTROLS / SCHEDULING





## Packaging and Equipment

Cavanagh works closely with Customers to understand individual project needs and requirements. This approach allows us to provide a DOT compliant, cost effective strategy for each project and client. We have saved our Customers large expenditures using our integrated services which provide the best combination of packaging and mode of transport.

Cavanagh's broad experience and thorough understanding of the DOD, DOE, DOT, and international regulations governing the type and method hazardous and low-level and mixed low-level radioactive waste is packaged enables us to offer the best approach to safe and cost-effective packaging and disposition. Cavanagh has experience packaging waste and inspecting previously packaged waste to ensure compliance with all local, state, federal, and international regulations and the designated waste acceptance criteria of the disposal or treatment facility.

### RAILCARS

Cavanagh maintains its own private fleet of railcars including Gondolas and Articulated Bulk Container Railcars (ABC). Cavanagh's Gondolas are specifically designed to transport bulk materials up to 110-tons including soils, prepackaged waste, debris, and other materials. The Cavanagh ABC railcars provide several significant advantages including the capability to transport up to eight (8) intermodal containers simultaneously. All Cavanagh railcars are maintained in compliance with all American Association of Railroads (AAR) mechanical operation and interchange rules. The railcars are also maintained to meet all DOT requirements for the transportation of intermodal containers. Cavanagh's well-maintained railcars comply with all federal regulations, ensuring ASC's regulatory compliance.

#### **Gondola Railcars**

- ▶ Privately owned
- ▶ Hard Lids or Tarps available
- ▶ Designed for Bulk light density materials – construction debris, soils, concrete pieces, raw materials, general cargo, etc...
- ▶ Transport large volume in single conveyance
- ▶ Meet all Federal railroad regulations

#### Specifications:

- 110 Ton weight capacity
- 52' 6" L x 9' 6" W x 5' 6" H
- 2,743 cubic feet capacity
- 1996 and newer

#### **Flatbed Railcars**

- ▶ Capacity to transport 8 intermodals (double stacked) simultaneously (twice as many as most flatbed railcars)
- ▶ Ideal for projects with long distance transport without direct rail service on site
- ▶ Equipped with ISO twist-lock connectors that easily secure the intermodal containers to the railcar
- ▶ Meet all Federal railroad regulations

#### Specifications:

- 354,000 lb / 177 Ton weight capacity
- 89' 11 -1/2" L x 10' 2" W x 3' 10-1/16" H

#### **Large Components**

- ▶ Custom rigging and hauling plans to move large components by truck or rail



## Packaging and Equipment Continued

### **BULK PACKAGING**

Cavanagh also has a fleet of Containers including Intermodal and Cargo SeaLand containers. Cavanagh currently operates over 400 intermodal containers on various projects around the country with approximately 200 of these intermodals meeting the IP-1 requirements as outlined in 49 CFR 173.411. All Cavanagh containers meet the requirements of the Department of Transportation (DOT) for the containerization and transportation of radiologically contaminated low level waste and mixed low level wastes, soils, and miscellaneous debris waste.

#### **Intermodal Containers**

- ▶ Containers meet the requirements of 49CFR 173.411 for Industrial Packaging Group 1 (IP-1)
- ▶ Rail and truck compatible
- ▶ Single piece aluminum lid with continuous gasket
- ▶ Rear door with continuous gasket
- ▶ Fork pockets for bottom lifting
- ▶ ISO corner castings at the top and bottom of each corner post – allow for top lifting of the container and double stacking of the containers
- ▶ Roll-off truck compatible
- ▶ Wind and water-tight seal

#### Specifications:

- Total volume capacity of 25.4 cubic yards
- Total weight capacity of 60,000 pounds
- Tare weight of 7,500 pounds
- 20' L x 8' W x 6' 6" H

#### **Cargo SeaLand Containers**

- ▶ Containers meet the requirements of 49CFR 173.411 for Industrial Packaging Group 1 (IP-1)
- ▶ End double doors with locking capabilities
- ▶ Rail and truck compatible
- ▶ Fork pockets for bottom lifting

#### Specifications:

- 20' L x 8' W x 8' 6" H and 40' L x 8' W x 8' 6" H
- Total volume capacity of 43 cubic yards
- Total weight capacity 40,000 pounds

### **ADDITIONAL PACKAGING**

Type A, Type B containers  
DOT Metal containers – all sizes  
Soft-sided containers – various sizes  
Drums Liners Lids & Tarps





## Packaging Design and Procurement Services

### 'READY TO USE' CERTIFIED PACKAGING

- ▶ Manage RFP process with manufacturers
- ▶ Implementation of Cavanagh NQA-1 2008 QA Program, 10 CFR 830
- ▶ Identify and approve qualified vendors
- ▶ Develop technical packaging specifications to meet DOE Order 460.1C & DOT specifications including 49 CFR 173, 178, and 350
- ▶ Perform onsite source inspections
- ▶ Conduct vendor visits
- ▶ Coordinate delivery with receiving facility
- ▶ Nationwide delivery/transport
- ▶ Provide technical guidance during fabrication
- ▶ Review final container documentation packages
- ▶ Conduct QA receipt verifications at receiving facility



### TYPES OF PACKAGING

- ▶ TYPE A
- ▶ TYPE B
- ▶ IP-1 AND IP-2
- ▶ CASKS
- ▶ INTERMODAL
- ▶ ROLL-ON / ROLL OFF
- ▶ SEALAND (WOOD/STEEL FLOOR)
- ▶ VARIOUS BOX SIZES
- ▶ DRUMS
- ▶ OTHER CUSTOMIZED PACKAGING



### BENEFITS

- ▶ Increased Efficiency
- ▶ Receive 'ready to use' DOT-Certified packaging the first time & avoid nonconformance issues
- ▶ Expedited Delivery of DOE-Approved Packaging
- ▶ Maintain project schedules without package delays
- ▶ Cost Reduction
- ▶ Decreased project delays and downtime





## Cavanagh Services Group performs under the following NAICS Codes:

NORTH AMERICAN INDUSTRY CLASSIFICATION SYSTEM		
	<i>NAICS CODE</i>	<i>DESCRIPTION</i>
<b>PRIMARY</b>	562910	Remediation Services
<b>PRIMARY</b>	484230	Specialized Freight (except Used Goods) Trucking, Long-Distance
<b>SECONDARY</b>	541614	Logistics/Transportation Management Consulting Services
<b>SECONDARY</b>	56211	Waste Collection
<b>SECONDARY</b>	541620	Environmental Consulting Services
<b>SECONDARY</b>	484121	Container Trucking Services, Long-distance
<b>SECONDARY</b>	532411	Commercial Air, Rail, and Water Transportation Equipment Rental & Leasing
<b>SECONDARY</b>	562998	Other Waste Management Services
<b>SECONDARY</b>	332439	Other Metal Container Manufacturing
<b>SECONDARY</b>	238910	Site Preparation Contractors
<b>SECONDARY</b>	562211	Hazardous Waste Treatment and Disposal
<b>SECONDARY</b>	562112	Hazardous Waste Collection
<b>SECONDARY</b>	488210	Support Activities for Rail Transportation
<b>SECONDARY</b>	532411	Railroad Car Rental and Leasing
<b>SECONDARY</b>	493110	Private Warehousing and Storage
<b>SECONDARY</b>	561210	Facilities Support Services / Government Base Facilities Operation Support Services