



CAMPBELL INSTITUTE™

**A transformative
force** in EHS



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THE CAMPBELL INSTITUTE

Campbell Award Success Story

Fluor Hanford Case Study

National Safety Council

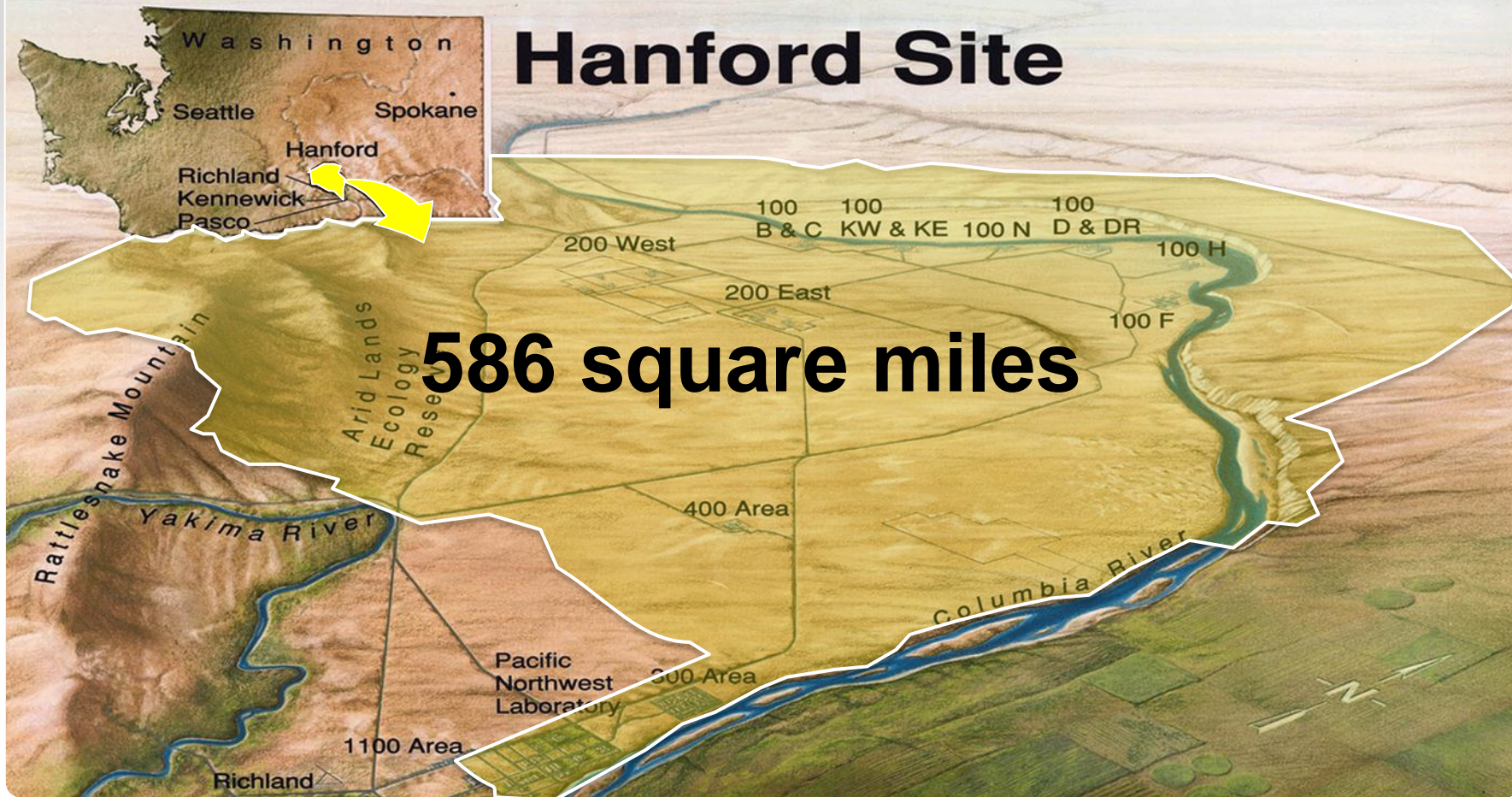


FLUOR.



Where Is Hanford?

Hanford Site



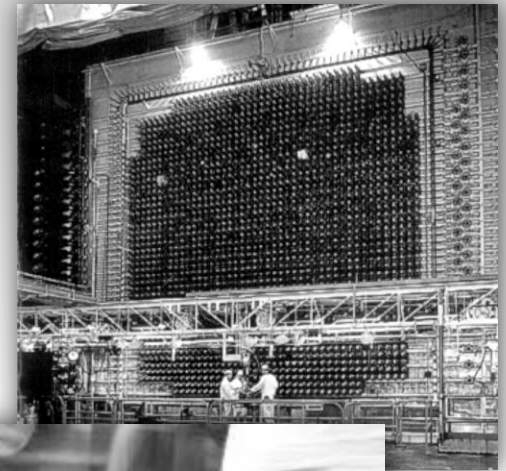
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Hanford History



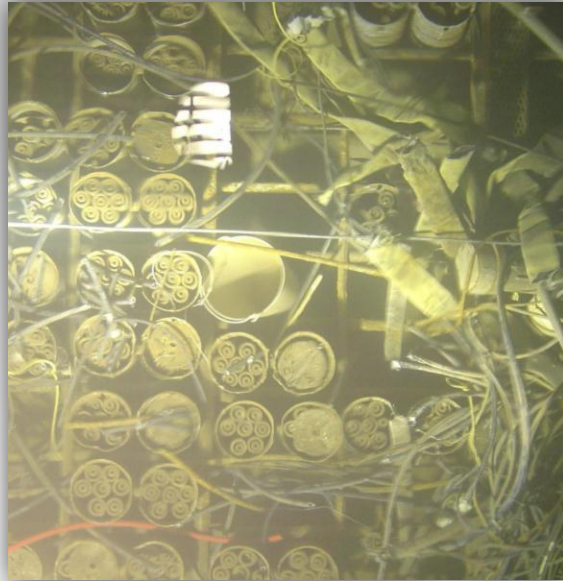
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Hanford History



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Hanford Cleanup Challenge



- 1,700 waste sites
- 500 contaminated facilities
- 53 million gallons of tank waste
- 2,300 tons of spent nuclear fuel
- 20 tons of plutonium material
- 80 square miles of contaminated groundwater

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Where We Are in the Cleanup



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Safety



Environment,
Management

ESTABLISH
ES&H POLICY

DEFINE
WORKSCOPE

EMS

ISMS

VPP

EWP

PERFORM
WORK

HAZ
CO

MANAGEMENT
REVIEW



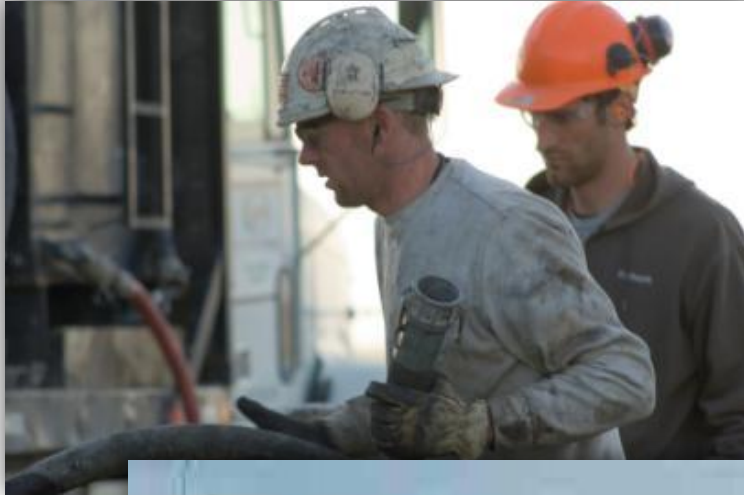
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Mission – Business Profile



Campbell Award Success Story

Mission – Business Profile



Campbell Award Success Story

Mission – Business Activities



Waste Stabilization

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Mission – Business Activities



Waste Shipment

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Mission – Business Activities



D&D

Campbell Award Success Story

Mission – Business Activities



Contaminated Groundwater

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Mission – Business Activities



Utilities & Infrastructure

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Mission – Business Activities



Security

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Mission – Business Activities



Fire Department

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Mission – Business Activities

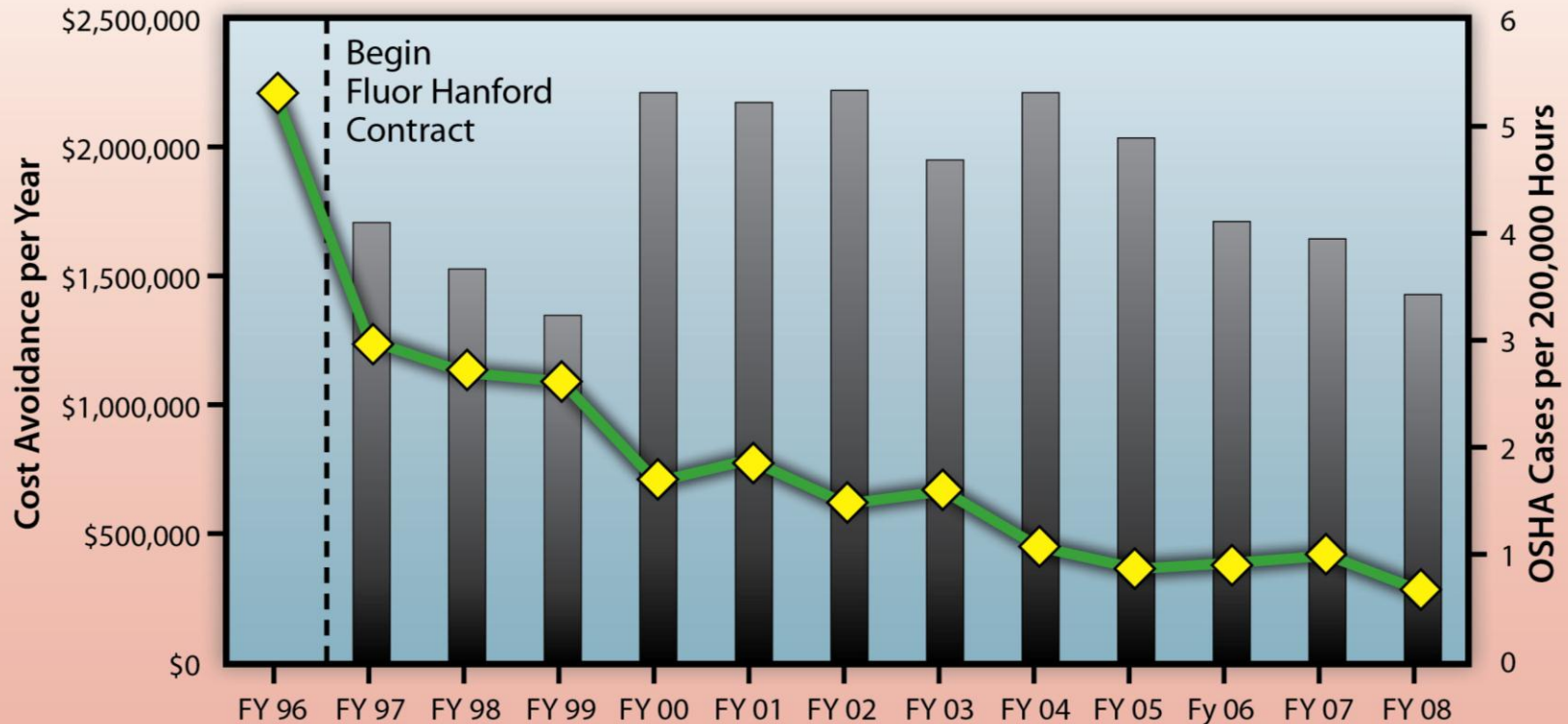


Training

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ESH Cost Avoidance Adds to Business

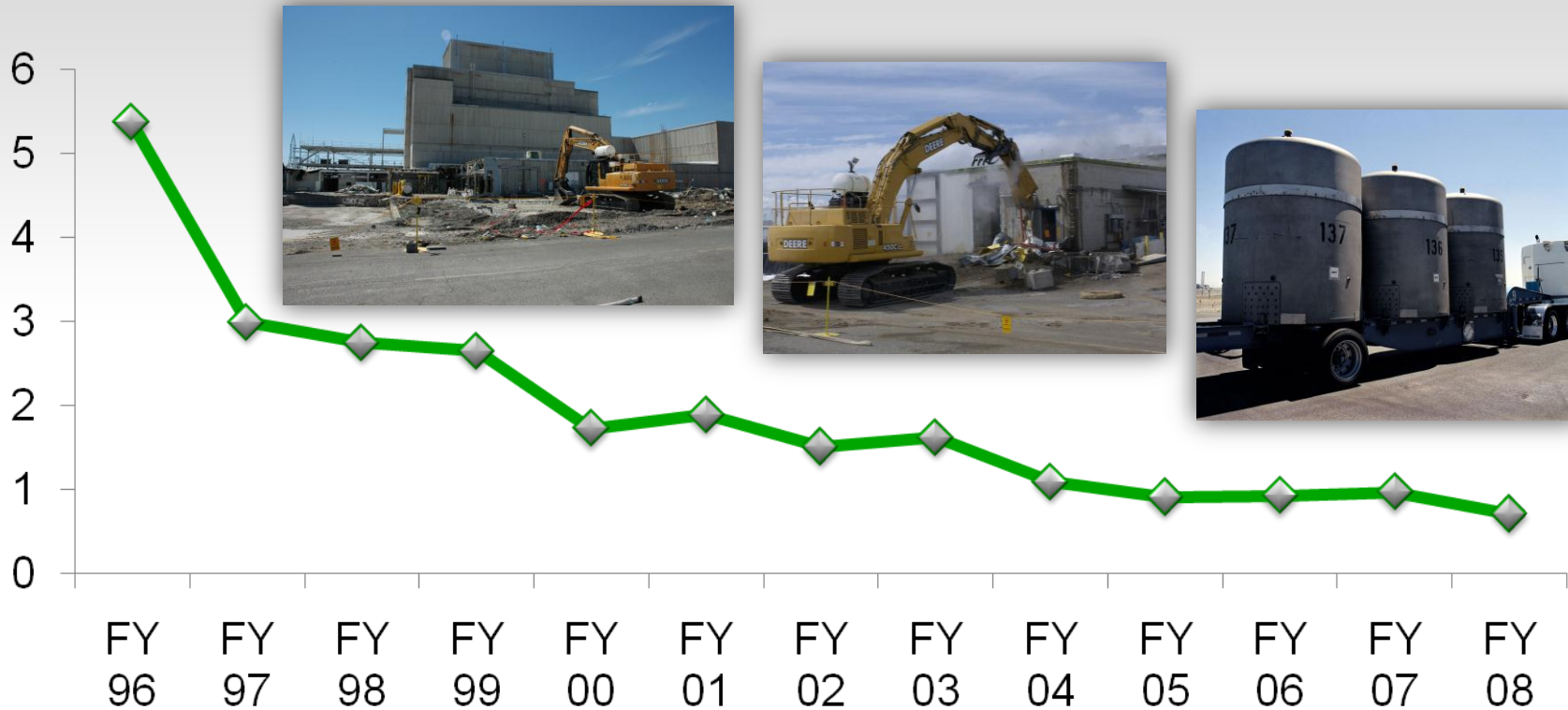
Injury Cost Avoidance by Fiscal Year



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SH&E Supports Milestone Completion

Flour Hanford OSHA Recordable Cases per 200,000 Hours and Protecting the Columbia River



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Integrated ESH Management System



Employee Partnership

- Union Rep Safety Program
- Safety Councils
- HAMMER / Worker Trainers
- Voluntary Protection Program
- Safety Culture – 24/7

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Union Safety Rep Program

Union Safety Representatives



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Union Safety Rep Program

Benefits of Union Safety Representatives

- Fewer safety and health-related concerns
- More worker involvement
- Fewer grievances
- Increased ownership of safety
- Partnering culture between union and management



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Safety Councils

Presidents' Zero Accident Council

- Safety decisions and information are made and communicated up and down the chain
- Management and employees equally represented
- Structured with a company-level council that represents 50 project/organization councils



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Voluntary Protection Program

- Fluor Hanford has earned nine DOE-VPP Star site designations
- Strengthened management / employee partnerships
- Provides mentoring/benchmarking opportunities



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Integrated SH&E Management System

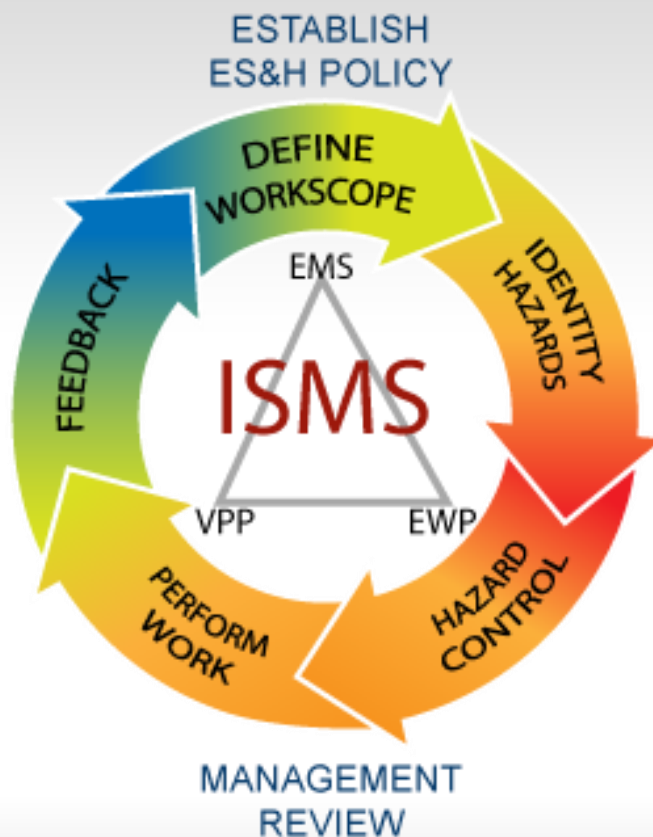
Business Systems

- Integrated Safety Management System — foundation for all we do
- Work management — team approach
- AJHA — National Awards
- Training methods and facility — world class
- As-Low-As-Reasonably-Achievable (ALARA) Center
- Metrics

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ISMS – Foundation for All We Do

Integrated **E**nvironment, **S**afety and
Health **M**anagement **S**ystem



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Automated Job Hazard Analysis – National Awards

- Creates a “team” approach
- ESH involvement up front
- Technically based selection of hazard controls
- Reduces planning and execution time
- Consistency in the hazards-analysis process



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AJHA – National Awards

Identify Potential Job Hazards

The yellow shadow always reminds you where you are in the JHA process.

Hazard Tree questions are written with "LEVELS" of detail.

Actions			Applies	Hazard Description	Select controls for these hazards	Comments	Help
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	YES	Confined space entry		<input type="button" value="Comment"/>	<input type="button" value="Help"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	YES	Permit-required confined space		<input type="button" value="Comment"/>	<input type="button" value="Help"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	YES	Atmospheric hazards exist in the space		<input type="button" value="Comment"/>	<input type="button" value="Help"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NO	Atmospheric hazards introduced		<input type="button" value="Comment"/>	<input type="button" value="Help"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NO	Engulfment/entrapment hazards?		<input type="button" value="Comment"/>	<input type="button" value="Help"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Potential for encountering hazards from adjacent activities		<input type="button" value="Comment"/>	<input type="button" value="Help"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Mechanical, electrical, or physical safety hazards		<input type="button" value="Comment"/>	<input type="button" value="Help"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Radiological inventories are present in the area		<input type="button" value="Comment"/>	<input type="button" value="Help"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Reclassify PRCs to NPCs		<input type="button" value="Comment"/>	<input type="button" value="Help"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Non-permit confined space		<input type="button" value="Comment"/>	<input type="button" value="Help"/>

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AJHA – National Awards

Printed Reports

Waste Planning Checklist

Waste Packaging Instructions

Hazards and Controls

The screenshot displays a Windows desktop environment with three overlapping application windows. On the left is a 'Waste Planning Checklist' form with various safety and planning questions. In the center is a Microsoft Word document titled 'F_1278_0_3185.doc' containing a 'Waste Planning Checklist' form. On the right is another Microsoft Word document titled 'F_1278_0_3186.doc' containing a 'WASTE PACKAGING/LABELING INSTRUCTION SHEET'. The desktop taskbar at the bottom shows the Windows Start button, several open applications, and the system tray with the time 1:35 PM.

Waste Planning Checklist (Left Window):

- Description: CVBXC0
- Pre-Job Walkthrough Conducted:
- Specific Work Location(s): cvbxc
- Emergency Contact Persons: Radio/Phone: xcvb
- Scaffolding?
- Excavation work?
- Elevating work platforms?
- Portable ladder?
- Hoisting, Rigging, or Cranes?
- Use of forklift truck?
- Falls from elevation?
- Slip or trip hazards?
- Hazards from falling objects?
- Blind Penetration of Walls, Floors, Ceilings, Roofs, Other Surfaces?
- Hazardous energy sources (includes Lockout/Tagout)?
- Electrical Shock or Arc Flash Hazard?
- New electrical installation, modifications, or temporary wiring

Waste Planning Checklist (Center Window):

AJHA ID: XX-594 REV: 0

A. WORK PACKAGE PREPARATION

- Will waste be generated?
- Will waste be generated in a radiological area?
- Will waste be generated in a process area?
- Will process equipment be removed?
- Will the disposed waste come in contact with personnel?
- Will there be any aerosol can(s) disposed?
- Will HEPA filters be disposed?
- Will asbestos waste be generated?
- Will paint waste be generated?
- Will chemicals / hazardous products be generated?
- Will hazardous waste be generated?

(a) List "ALL" MSDS numbers and their locations:

MSDS No.	Chemical Name
11.	General description of waste: _____ Estimate quantity of waste that will be generated: _____ Estimate length of job: <input type="radio"/> Day(s) <input type="radio"/> Week(s)

WASTE PACKAGING/LABELING INSTRUCTION SHEET (Right Window):

AJHA ID: XX-594 REV: 0 AJHA STATUS: Initiated PERMIT ID: 2 REV: 0 Status: Initiated

Tracking Number: _____

Waste Generating Activity: CERCLA RCRA **Waste Generating Location:** _____

Waste Type: (more than one may apply i.e. TRU and Waste Pending Analysis)

LLW LLMW TRU TRUMW ECM HWDW TSCA

Non-Regulated Waste Pending Analysis Waste Awaiting Designation

Container Type:

UN1A2 Resin Coated Drum (MPC) UN1A2 Galvanized Drum (LPC) UN1A2 Painted Drum (LPG)

Plywood Box Metal Box ERDF Roll Off Can Other _____

Container Size: _____ **Liner:** _____

Required Labels: (if more than one may apply, underline the subsidiary label) NOTE: The major label must be located within 6 inches of the EPA Hazardous Waste Sticker/Marking, if applicable.

DOT Radioactive I DOT Radioactive II DOT Radioactive III Flammable Liquid Oxidizer

Corrosive Class 9 Other _____

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Volpentest HAMMER Training & Education Center

World-Class Training Methods and Facility



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ALARA Center

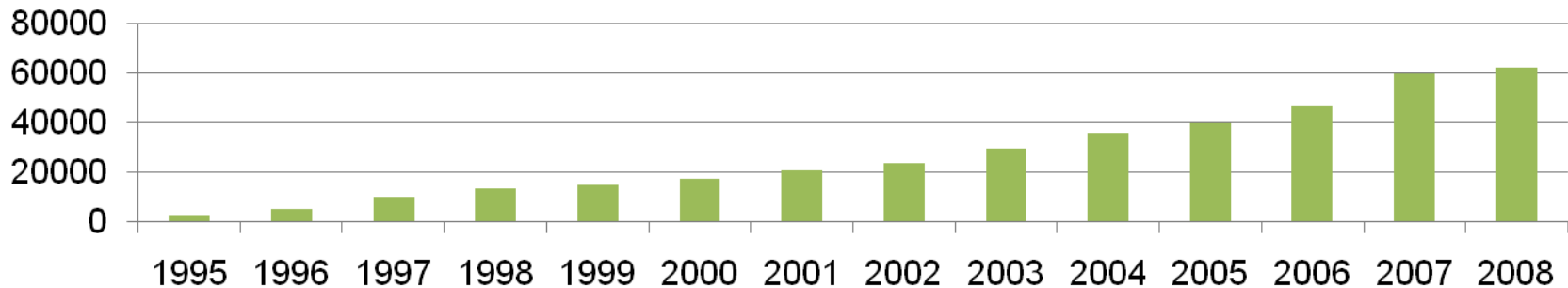
Where Workers and Planners Meet



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Community Impact / Involvement

- Safety and Health EXPO
 - 62,000 visitors in two days
- VPP Mentoring
- United Way
 - Highest local contributor
- Junior Achievement – Bowling



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SH&E Stewardship

Innovation led to cost savings and reduced employee exposure

- Open-Air Demolition
 - 233-S removal (Plutonium)
- Open-Air Demolition
 - 105KE Transite removal
- U-Plant rubblelizing and entombing *versus* material removal and burial



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Triple Bottom Line Effect

Fluor Hanford

- Ranked among the safest companies in the industry in which we work
- Additional work is being completed due to ESH efficiencies and injury reduction
- Earned reputation of timely milestone completion and effective stewardship of taxpayer money
- Performance key to winning new contracts

Productivity

Environment

Sustainability

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On-Site Review Results

Reflected our business values

FLUOR[®]

Safety

Integrity

Teamwork

Excellence

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Questions and Answers

From yesterday



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Questions and Answers

To today

