



Savannah River
Nuclear Solutions, LLC
A Fluor Daniel Partnership

SRS EMS DOE 450.1A

“Declaration of Conformance”

External Audit

Eloy Saldivar, Jr.

SRNS Regulatory Integration and Environmental Services
8/27/09

2009 DOE ISM Conference

Knoxville, TN



Agenda

- **EMS Customer Satisfaction**
- **Contractor Profile/Integration**
- **Integration of EMS into ISM**
- **EMS External Audit**
- **EMS “Declaration of Conformance”**
- **EMS Configuration Control**
- **EMS Impact on SRS Processes, Products and Services**

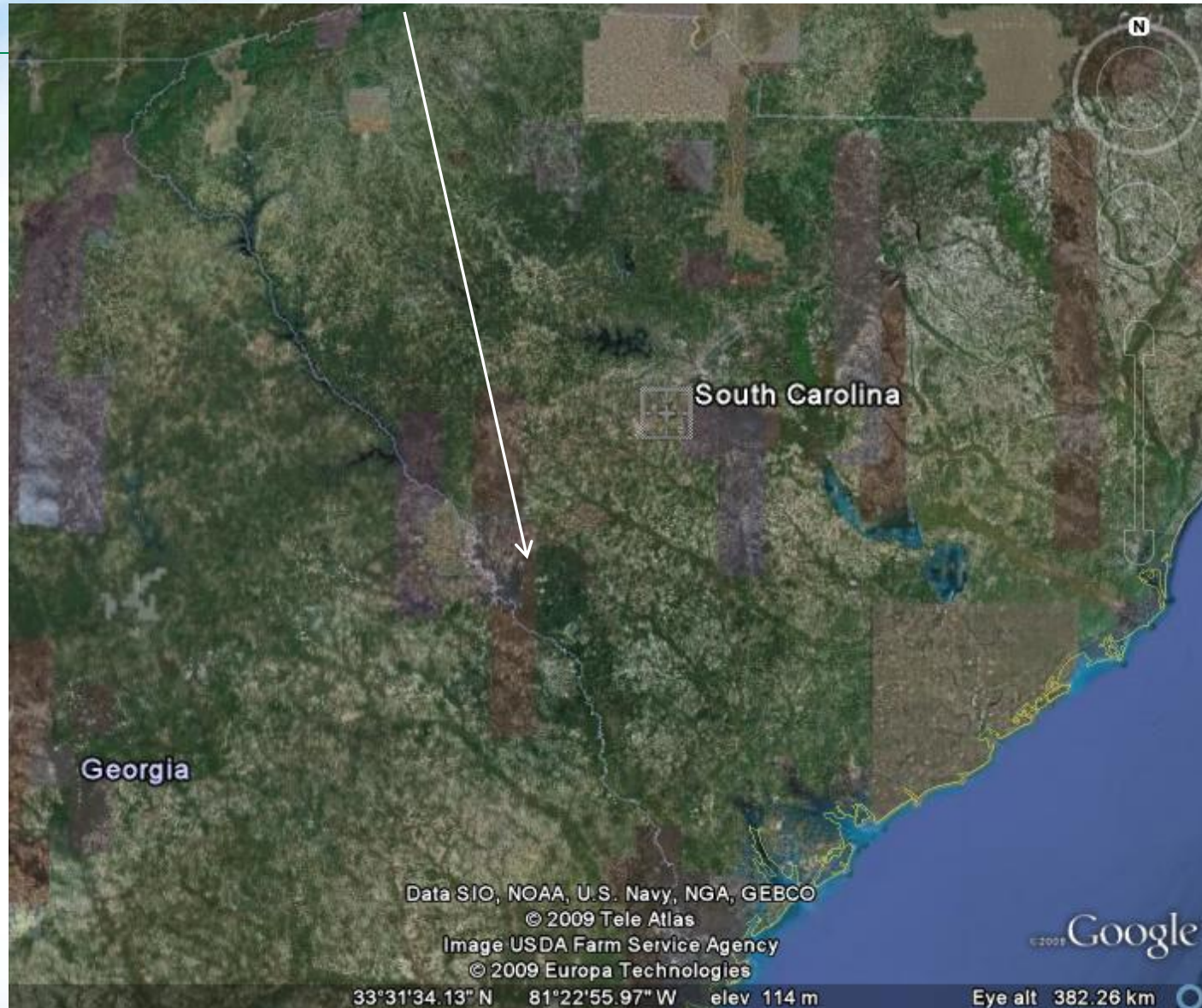




EMS Customer Satisfaction

- **DOE O 450.1A/430.2B, EO 13423 Compliance**
- **Contractor Integration**
- **Policy**
- **Aspects**
- **Goals & Targets**
- **Coordination of External Audit**
- **Audit Feedback**
- **Website**

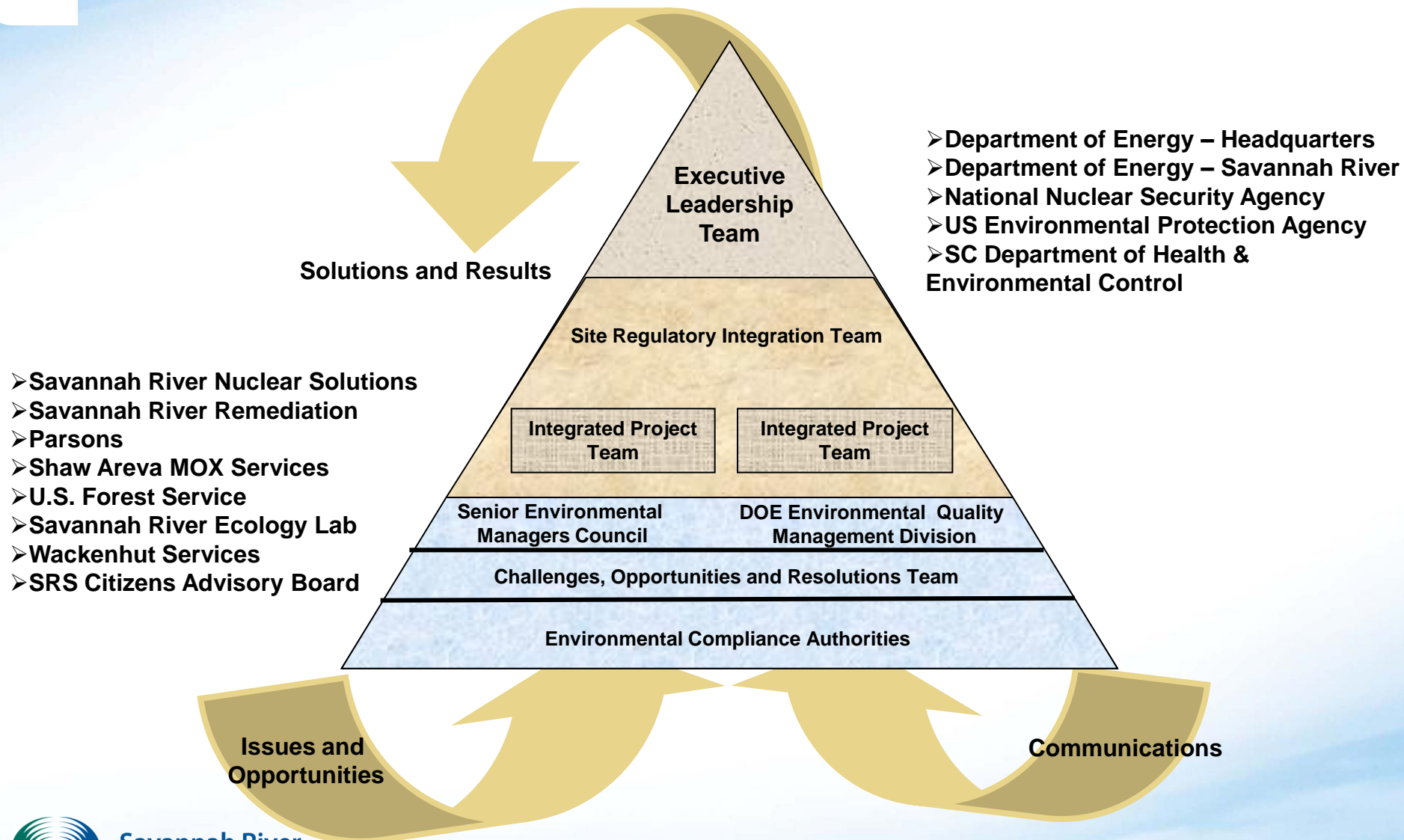
SRS is Green !!!



SRS Contractor Profile

Company	Scope	Organization Size
SRNS	M&O	6,340
SRR	LWO	1,800
WSI	Security	900
Shaw-Areva	MOX	1,200
Parsons	SWPF	300
SREL	Ecology	50
USFS-SR (USDA)	Forestry	70

EMS Contractor Integration



Integration of EMS into ISM

- **Developed EMS Scope**
 - EMS Policy
- **Analyzed Hazards / Identified Controls**
 - Identified Aspects (integrated with DOE Complex)
 - Evaluated Aspects to define Goals and Targets
- **Perform Work**
 - Execution of Goals and Targets (See “Perform Work” Chart)
- **Feedback / Improvement**
 - Senior Environmental Managers Council (SEMC)
 - Corrective Action Plan
 - EMS Communications (SRS Subcontractor Safety Forum, ISM, EFCOG)



SCOPE

Budget Process/Contract Requirements
Define Environmental/Regulatory Submittals
Address New Scope From Permit or Regulation Changes
Identify Sensitive Environments (e.g., wetlands, floodplains, cultural sites, etc.)

REQUIREMENTS

MULTIPLE CONTRACT TYPES

-DEAR (SRNS)
-FAR (SRR)

STRUCTURE

MULTIPLE CONTRACTORS

NNSA Savannah River Site
Shaw AREVA
Wackenhut Services Inc.
Savannah River Nuclear Solutions, LLC
Savannah River Remediation, LLC.
Savannah River Ecology Laboratory
Parsons
USDA Forest Service
Ameresco

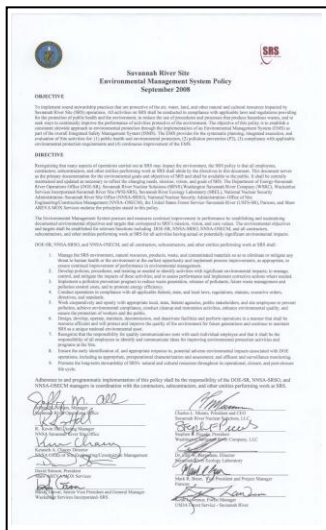
ANALYZE HAZARDS/IDENTIFY CONTROLS

Environmental Permits/Permit Modifications
Waste Management Controls (RCRA/RMW)
Regulatory Agreements (FFA, MOUs, MOAs, STP etc.)
Engineering and Administrative Controls
Permit Requirements Added to Procedures
Required Notifications to Regulators
Waste Minimization/Pollution Prevention
Waste Shipment/Receiving Facility Reviews (WACs)
Readiness Reviews
Identify /Incorporate Controls in Work Authorization Documents

Conduct Activity Hazard Analysis
Identify applicable laws/regulations
NEPA Checklist/EEC and/or
Screening Review
Assess proposed scope against existing permits
Participate in Pre-Job Walkdowns
Review ISMS Matrix & Subcontractor Submittals
Analyze Activities for Environmental Aspects
Prepare/Review Waste Characterization
Provide Environmental Expertise

EMS Goals & Targets

EMS Policy



A S P E C T S

Environmental Aspect	EMS Objectives	EMS Targets	Actual Performance	Target Status	Notes	Responsibility
Energy Efficiency and Conservation	Reduce energy consumption by 10% by FY08	10% reduction in energy consumption by FY08	10% reduction in energy consumption by FY08	Met	Energy conservation program implemented	Plant - MS Project
Waste Management	Reduce waste generation by 10% by FY08	10% reduction in waste generation by FY08	10% reduction in waste generation by FY08	Met	Waste management program implemented	Plant - MS Project
Water Conservation	Reduce water consumption by 10% by FY08	10% reduction in water consumption by FY08	10% reduction in water consumption by FY08	Met	Water conservation program implemented	Plant - MS Project
Air Quality	Reduce air emissions by 10% by FY08	10% reduction in air emissions by FY08	10% reduction in air emissions by FY08	Met	Air quality program implemented	Plant - MS Project
Soil Conservation	Reduce soil erosion by 10% by FY08	10% reduction in soil erosion by FY08	10% reduction in soil erosion by FY08	Met	Soil conservation program implemented	Plant - MS Project
Wildlife Conservation	Reduce wildlife mortality by 10% by FY08	10% reduction in wildlife mortality by FY08	10% reduction in wildlife mortality by FY08	Met	Wildlife conservation program implemented	Plant - MS Project
Public Relations	Reduce public complaints by 10% by FY08	10% reduction in public complaints by FY08	10% reduction in public complaints by FY08	Met	Public relations program implemented	Plant - MS Project
Occupational Safety and Health	Reduce occupational injuries by 10% by FY08	10% reduction in occupational injuries by FY08	10% reduction in occupational injuries by FY08	Met	Occupational safety and health program implemented	Plant - MS Project
Community Development	Reduce community complaints by 10% by FY08	10% reduction in community complaints by FY08	10% reduction in community complaints by FY08	Met	Community development program implemented	Plant - MS Project
Emergency Management	Reduce emergency response time by 10% by FY08	10% reduction in emergency response time by FY08	10% reduction in emergency response time by FY08	Met	Emergency management program implemented	Plant - MS Project
Information Management	Reduce information management costs by 10% by FY08	10% reduction in information management costs by FY08	10% reduction in information management costs by FY08	Met	Information management program implemented	Plant - MS Project
Financial Management	Reduce financial management costs by 10% by FY08	10% reduction in financial management costs by FY08	10% reduction in financial management costs by FY08	Met	Financial management program implemented	Plant - MS Project
Human Resources Management	Reduce human resources management costs by 10% by FY08	10% reduction in human resources management costs by FY08	10% reduction in human resources management costs by FY08	Met	Human resources management program implemented	Plant - MS Project
Legal Management	Reduce legal management costs by 10% by FY08	10% reduction in legal management costs by FY08	10% reduction in legal management costs by FY08	Met	Legal management program implemented	Plant - MS Project
Quality Management	Reduce quality management costs by 10% by FY08	10% reduction in quality management costs by FY08	10% reduction in quality management costs by FY08	Met	Quality management program implemented	Plant - MS Project
Environmental Management	Reduce environmental management costs by 10% by FY08	10% reduction in environmental management costs by FY08	10% reduction in environmental management costs by FY08	Met	Environmental management program implemented	Plant - MS Project

PERFORM WORK

- Replacement of a 1950's vintage coal-fired steam plant with a new renewable energy (biomass) plant to provide steam to SRNL and A Area
- CHEMICAL MANAGEMENT CENTER
 - Acquisition and waste cost avoidance < \$19M (FY03-07)
 - Chemical Footprint Reduction
360M LBS. since 1995
- Energy conservation modifications made in over 150 site facilities
- Retrofitting of nearly 30,000 lighting fixtures
- Development and implementation of a Peak Alert (demand reduction) program
- Energy management control systems installed for over 30 HVAC units
- Establishing a light-duty fleet of nearly 100% ethanol fueled vehicles
- Installation of 70 time clocks to turn lighting off in high-bay areas, as well as over 2,000 occupancy sensors to turn facility lighting off when not needed



PERFORM WORK

- **ELECTRONICS MANAGEMENT**

- Energy Star configured computers across site



- Reduces ash generation of ash by 1500 tons/yr, particulate matter by 400 tons/yr, SO₂ by 1800 tons/yr, NO_x by 240 tons/yr, and CO by 50 tons/yr.
- Replacement of various equipment (pumps, motors, etc) and the permanent shutdown of a steam line
- Biomass Co-Generation Facility (Ameresco)
- Establishment of new requirements to incorporate sustainable building design and high performance sustainable guiding principles
- Providing energy awareness information for employees and using a sitewide IDEAs program for employee interaction

- Centralized disposition of electronics/life-cycle management
- Installation of 150 programmable thermostats



- Second Biomass Plant scheduled for 2011



FEEDBACK/IMPROVEMENTS



SRS EMS External Audit

- **Planning**
 - Self-Assessment
 - Communications
- **Audit**
 - Checklist Elements (17)
 - Interviews (77)
 - Review of Documents (80)
 - 1 minor non-conformance, 3 opportunities for improvement, 2 observations, 5 noteworthy practices
 - Grading Tool: 94%
- **Corrective Action Plan**
 - STAR Finding Disposition
 - Senior Management Review of Aspects, Goals & Targets

EMS “DOE 450.1: A Declaration of Conformance”

- **Audit**
 - DOE O 450.1A, CRD paragraph 1.c.(1)(a)
- **Audit Period – 28 April to 1 May, 2009**
- **Audit Report**
 - Certification of Auditors
- **Audit Finding Disposition**
 - DOE O 450.1A, CRD paragraph 1.c.(1)(b)
 - Corrective Action Plan
 - Site Tracking and Reporting (STAR) Actions
- **Declaration of Conformance**
 - DOE O 450.1A, CRD paragraph 1.a.



EMS Configuration Control

- **EMS Policy Update**
- **Aspects Tailoring to SRS Needs & Programs**
- **Goals and Targets Update**
- **SEMC Routine Review of EMS Activities**
- **EQMD Reporting**
- **Website Update**



EMS Impact on SRS Processes, Products and Services

- **Review of Environmental Procedures**
 - 3Q Manual
- **Communication of Goals and Targets**
 - EMS Website
 - Routine Employee Communications
- **Metrics**
 - Implementation Activities
- **ECA Quarterly Meetings**
 - Review of Execution of Aspects Goals and Targets
- **Routine Review with Senior Site Managers**
 - Monthly review of Aspects Goals and Targets