



Redstone Arsenal (RSA) Site Access Control (SAC) Program



Redstone Arsenal Site Access Control



Redstone Arsenal

- RSA occupies 38,300 acres with four land owners
 - DOD
 - DOI -Wheeler Wildlife Refuge
 - TVA
 - NASA
- 70+ tenants
 - Research and Development
 - Engineering
 - Equipment Testing and Analysis
 - Intelligence Collection and Analysis
 - Training
 - Acquisition



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The Need for SAC at RSA

A response to an identified
need to protect human health
and the environment

Support the Army mission at
Redstone

Many of the sites are in heavily
occupied areas



Key elements of the SAC Program

1. Redstone Regulation 200-7
2. Fences, gates, and signs warn workers and trespassers of hazards on environmental sites
3. Recreational use restrictions
4. Integrated into the Garrison Work Order Review request/control system
 - Interactive contaminant evaluation system utilizing GIS and Oracle database
5. Ease of implementation into daily operations



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Key Element 1

Redstone Arsenal Regulation 200-7



- Establishes the administrative controls to:
 - Protect workers and visitors
 - Prevent spread of contamination
 - Manage future Land Use Controls (LUCs)
- Includes clearly defined responsibilities
- Allows the RSA Garrison and tenants to:
 - Identify environmental site issues during the development of a project
 - Maximize efficiency associated with siting and design of new projects
- Existing Infrastructure maintenance
 - Provides guidelines for repairs



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Groups covered by this regulation



- All organizations, tenants and activities on RSA requiring access to environmental sites
 - Maintenance & repair, including minor service orders
 - Grounds maintenance
 - Construction
 - Recreational users
 - Employees occupying buildings within site boundaries



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Key Element 2 Fences, Gates, and Signs

- Controlling Entry of workers or trespassers
 - Fences, gates, and signs warn trespassers of hazards on environmental sites



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Key Element 3 Recreational use Restrictions

- Recreational usage is not allowed on IRP sites
- The Outdoor Recreation Center distributes the map and instructions to all recreation permit applicants

Hunting / Fishing Restricted Areas



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Key Element 4 Work Order Requests

- Work order requests are entered into the GIS geodatabase as polygon, line, or point for each project
- Initial NEPA review uses GIS layers to evaluate projects against:
 - Environmental Sites
 - Cultural Resources; Archeological, Historical Sites
 - Natural Resources; Wetlands, Ecological, Forestry, Agriculture
 - Compliance; permitting, storm water, air emissions, etc
- Only work order requests determined to be within an IRP site boundary are reviewed by IR personnel



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The Site Work Plan Evaluation



- Evaluate
 - Worker exposure
 - Contaminant migration transport
 - Future Restoration work
 - Activity debris/waste restrictions
 - Special hazards UXO / CWM
- Evaluation results are entered directly into the NEPA / IRP database for project implementation, field inspection, and project tracking



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IR Review of Work Requests

- Contaminant concentrations in the project area are extracted from the analytical database
- The concentrations are evaluated against background, residential PRGs, and industrial action levels
- The proposed action is evaluated for future impact on restoration activities
- Disposal requirements for wastes generated from work activities are determined
- Special hazards are identified; UXO, CWM
- Any necessary controls and restrictions for entering and/or working on a site are identified
 - regulator concurrence is obtained where applicable



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Automated evaluation process

- During the period FY03 thru FY05
 - 468 work requests were processed
 - approximately 150 required IR evaluations
- The SACIMS system was developed for Redstone by Shaw to streamline the evaluation process and reduce human error
- SACIMS is an application of several technologies including
 - ArcIMS
 - Active Server Pages
 - client-side scripting
 - XML
 - Oracle
 - RSA Central Data Repository
- SACIMS is made of two primary modules
 - Viewer
 - Query window
- Windows are dynamically linked



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RSA SACIMS Site Design Features

- An existing analytical database (Oracle) and spatial information (shapefiles) were crucial for success
- The site is housed on a secure server and access is limited to authorized users
- The site requires no special software and can be accessed from any computer with internet access
- The site is user friendly and is complete with a user manual / tutorial



SACIMS Output Options

- Map resolution and size can be specified and downloaded in jpeg format
- Tables can be saved in EXCEL format with additional information
- Tables can also be saved in WORD table format with concern color coding intact



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Key Element 5 Implementation

- Prior to implementation, training was held with various organizations;
 - Tenant POCs
 - Base maintenance
 - Grounds Maintenance
 - Utility Providers
- Update training is held on a periodic basis
- Experience has shown the program to be user friendly and readily implemented into daily operations
- Records are kept electronically and available for review on a request basis



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Summary

- The SAC Program is an integrated process:
 - Protect human health and the environment
 - Support the Army mission at Redstone
- SACIMS is a valuable tool for evaluating site conditions
- Future enhancement to SAC Program will include comparisons to Industrial Hygiene PELs, TELs, etc.
- Future Land Use Controls LUCs in final RODs will be incorporated into the SAC to inform land users of environmental restrictions