

RS Solutions 2000

Radiation Safety Database



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RS Solutions is a Microsoft Access database application that provides your radiation safety office with a powerful tool to store, organize, and view its records and data. The software is user-friendly and is based on the familiar Windows environment including command buttons, pull-down lists, and on-screen help. The software can be customized to fit the specific policies of your institution.

RS Solutions 2000 will increase the accuracy and efficiency of your radiation safety office by providing information that was previously unavailable or difficult to retrieve. Your office will avoid the common regulatory violations that occur from poor and inefficient record keeping through the implementation of this software.

The database opens with a **MAIN MENU**, which allows the user to select from one of nine categories: Authorized Users, Radiation Workers, Dosimetry, Radioactive Materials, X-Ray Machines, Radioactive Waste, Laboratories, Equipment and Miscellaneous.



AUTHORIZED USERS MENU

Users can perform a variety of tasks related to Authorized Users (AU). For example:

- Select an AU of a specific Type from a list of “Active”, “Inactive” or “All”
 - a. View / Edit personal Information
 - b. View / Print a list of their:
 1. Radiation Workers
 2. Equipment
 3. Laboratories
 4. Radioactive Materials (RAM)
 5. X-Ray Equipment
 6. Authorized radioactive material limits
 7. Violations
 8. Holds
 9. License Conditions
- View a list of “All”, “Active”, or “Inactive” AUs
- Add New AU
- E-mail an AU from a specific type or E-mail “All” AUs with ability to attach files
- View a list of AU’s expired license – Expired RAM limits
- De-Activate specific AU – with the choice to transfer to a New AU their:
 - a. Radiation Workers
 - b. Equipment
 - c. X-Ray equipment
 - d. Laboratories
- Print mailing labels
- Track holds on specific AU. Ordering of RAM is not allowed until hold is removed.
- Enter / edit license conditions for a specific AU
- View/Print inventory summary comparing AU’s current inventory with authorized limits



List of attached reports:

- II.1 List of active radiation workers for a specific AU
- II.2 List of active RAM inventory for a specific AU
- II.3 RAM inventory summary list for a specific AU
- II.4 List of expired authorizations for a specific AU
- II.5 List of active X-Ray inventory for a specific AU
- II.6 List of AU’s active laboratories

RADIATION WORKERS MENU

This menu allows users to perform a variety of tasks such as:

- View a specific Radiation Worker from a list of “Active”, “Inactive” or “All”
 - View / Edit personal information
 - Email specific or all Radiation Workers with the ability to attach files
 - Cancel specific Film Badge / TLD
 - Deactivate Rad Worker
 - View / Print Bioassay information by year
 - View / Print training records (RAM, X-Ray, etc.)
 - View / print radiation exposure records by year for a specific period, year-to-date or permanent.
- Add New Radiation Worker
- View a list of “Active” and “Inactive” Radiation Workers
- View / Print list of Radiation Workers with expired training
- Print individual worker’s training certificates
- Print training certificates for entire class
- View / Print list of radiation workers who attended a specific training class
- Print mailing labels



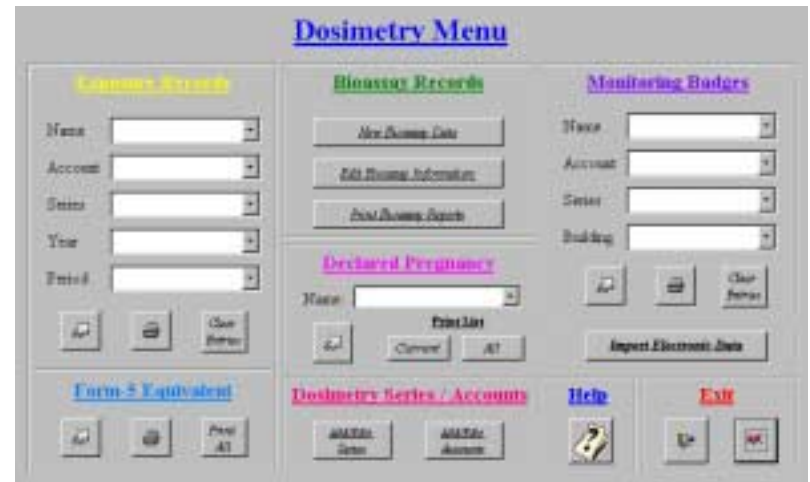
List of attached reports:

- III.1 List of radiation workers with expired training
- III.2 List of workers who attended a specific training class
- III.3 Training certificate for a specific radiation worker
- III.4 Radiation exposure report for a specific radiation worker

DOSIMETRY MENU

The Dosimetry Menu enables you to:

- View / Print a list of radiation monitoring badges.
 - Option to view by:
 - Name
 - Account number
 - Series code
 - Building
- Bioassay records
 - Enter new data
 - Edit existing data
 - Print bioassay reports by date
- Add new Series or Account
- Import dosimetry exposure reports (requires software from vendor)
- Generate NRC Form 5 Equivalent reports for exposure history of radiation workers
- View exposure records by any combination of worker, account, series, year, time period
- View declared pregnant worker’s fetal dose



X-RAY MACHINES MENU

The X-Ray machines menu allows the user to:

- View /Print “Active”, “Inactive” or “All” machines on campus. View by: building, type and AU
- Edit Information on specific X-Ray machine from a list of “Active”, “Inactive” or “All”
- Add new X-Ray machines
- Enter survey dates



List of attached reports:

- IV.1 Exposure report for a specific account and series
- IV.2 Occupational exposure record – Form 5 equivalent
- IV.3 Bioassay report for a specific radiation worker
- IV.4 Fetal exposure report for a declared radiation worker
- IV.5 List of badges for a specific account and building
- IV.6 List of X-Ray machines in a specific building

RADIOACTIVE MATERIALS MENU

Your staff will have instant access to:

- View / Print Radioactive Material Inventory:
 - By any combination of Isotope, AU, Building, Lab, or Physical Form
- View specific AU's last source number and Print / email his quarterly inventory
- Quarterly Inventory
 - Print master inventory list
 - Email inventory to all AU (with email addresses)
 - Provide a list of AUs with no email address (to mail hard copy to)
- View / Print inventory summary
- Add New Sources received to the current inventory
- Adjust the inventory for Amount Used
- Ability to transfer sources from one AU to another (option to transfer all or part of a source). Automatically check for approval / authorization of new AU to receive source.
- Keep track of Leak Test Data
 - Enter new leak test data
 - Print Reports and Letters
 - View / Print:
 - Specific Source log information
 - The Log of all sources
 - "Alpha", "Beta" and "Ni-63" Inventory
- RAM Orders
 - View / Print list of outstanding orders – Track by expected receipt date, AU name, isotope, physical form, P.O. number
 - Checks order requests against the AU limit, activity on hand and outstanding orders. Authorization is issued based on AU's possession limit for requested isotope and physical form.

- Approval to order new isotope will be denied if the order will cause AU's inventory to exceed the possession limit.
 - Perform calculations of radioactive decay by providing activity on given date or decay to specified activity
 - View/Print inventory summary comparing current inventory to authorized limits and license limits



List of attached reports:

- V.1 Active RAM inventory list in a specific building
- V.2 RAM inventory for a specific AU summed by isotope
- V.3 Active RAM inventory list for a specific isotope
- V.4 RAM inventory summary
- V.5 Alpha leak test inventory list
- V.6 Active RAM orders

RADIOACTIVE WASTE MENU

- View / Print a list of “Current”, “Disposed” or “All” waste packages. Option to view by Form, AU, Package year and Class – (Long-lived or Short-lived)
 - Information displayed:
 1. Package ID
 2. Date
 3. AU
 4. Form
 5. Classification
 6. Disposal container
 7. Disposal Date
 8. Sources in package
 - a. Source number
 - b. Isotope
 - c. Activity
 9. Isotopes in package
 - a. Isotope name
 - b. Total activity – Initial & current
- Add new waste packages
- Add new shipping containers
- View a list of Decay-In-Storage packages with scheduled disposal date
- View / Print a list of “Current”, “Disposed” or “All” shipping containers. Option to view by physical form and disposal year
 - Information displayed:

Container ID, description, volume (gal), volume (ft³), disposal date, package ID and list of Isotopes
- Waste Pick-up Log
 - Schedule a Pick-up
 - Update Log
 - View/Print Log

- Sanitary Discharge
 - View / Print selected discharge ID
 - Enter discharge data
 - Track disposal of liquid radioactive waste into sewer
 - Generate summary report to ensure that regulatory limits have not been exceeded.
- View / Print waste summary showing current activity of waste in storage



List of attached reports:

- VI.1 Radioactive waste package log
- VI.2 Radioactive waste shipping container info
- VI.3 List of Decay-In-Storage waste
- VI.4 Radioactive waste pickup log
- VI.5 Sanitary waste discharge report

LABORATORIES MENU

- View / Print a list of “Active”, “Inactive” or “All” Labs. Option to view by:
 - Building
 - Type
 - Whether or not the lab is being surveyed
- Add new Department
- Add new Building
- Add new Laboratory
- Provide a lab audit checklist that lists authorized radiation workers, instrument calibration due dates, authorized isotopes, and previous violations (past year).

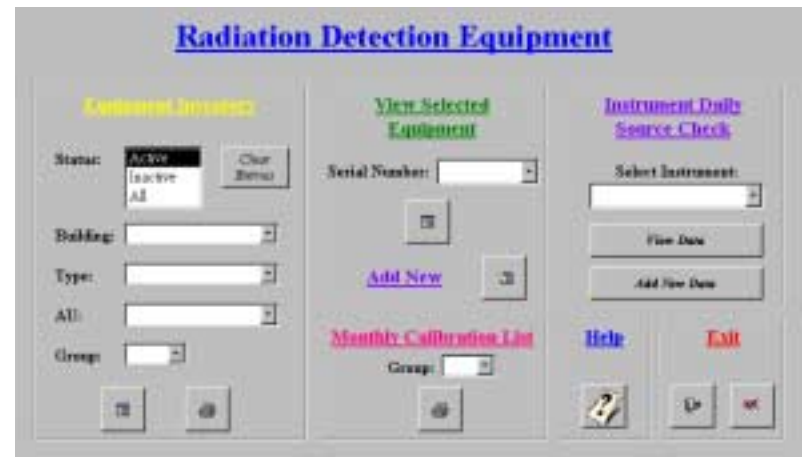


List of attached reports:

- VII.1 List of active laboratories
- VII.2 List of inactive laboratories for a specific type
- VII.3 Laboratory Audit checklist

DETECTION EQUIPMENT MENU

- View / Print a list of “Active”, “Inactive” or “All” labs. Option to view by:
 - Building, type, AU and group – (Month of calibration due)
- Edit information on selected equipment (by serial number)
- Add new detection equipment
- Print monthly calibration list (by group)
- Instrument daily source check
 - View selected instrument data
 - Add new daily source check data
- Track annual calibration dates (performed and due)



List of attached reports:

- VII.4 List of active radiation detection equipment for a specific group
- VII.5 List of equipment due for calibration in specified month

MISCELLANEOUS MENU

- Non-Rad workers (e.g. janitorial staff)
 - Select worker form a list of “Active”, “Inactive” or “All”. View / Edit personal information;
 - Track training dates
 - Deactivate worker.
 - Add new worker
 - View / print list of workers
- Regulatory inspections and violations
 - Track inspections and violations
 - View corrective actions
 - Track Unresolved violations
- Program summary
 - Number of active Authorized Users
 - Number of active Radiation Workers
 - Number of active Non-Rad Workers
 - Number of active laboratories and departments
 - Number of radiation detection devices, X-ray machines, etc.
 - Number of RAM orders received in current year and current month
 - Number of RAM orders awaiting receipt
 - Amount of waste in storage, disposed of in past year
 - Summary of RAM (Isotope & Total activity)
 - Number of active dosimeters
 - Number of dosimeter per series
- License Limits
 - Add / Edit / Print License Limits
 - Ability to add groups of license limits (e.g. from z=3 to z=83)
 - Enter License issue date and expiration date

- View all data in database in table view
- Emergency Call List
 - View / Print Emergency list
 - Add / Edit phone numbers for emergency contacts
 - Put contacts in order of importance



List of attached reports:

- VIII.1 List of regulatory inspections and violations
- VIII.2 Emergency call list
- VIII.3 Program summary

ADDITIONAL FEATURES:

- Provides on-screen help including detailed instructions on all the tasks and functions of the database.
- Utilizes user-level security to specify data access requirements for various members of your staff
- Enables exporting of data to another application (e.g. spreadsheet, word processor, etc.)
- Sends group emails (including file attachments) to your Authorized Users and Radiation Workers.

ADDITIONAL MODULES:

- Secure Internet access to place radioactive material orders, request waste pickups, submit inventory changes, and view radioactive material inventories.
- Task Manager module to track performance of routine tasks (e.g. meter calibration, sealed source leak tests, lab inspections, etc.)
- DAC-hr Tracking module that calculates DAC-hrs and personnel exposure from air sampling data.
- All additional modules including RS Solutions 2000 can be customized to meet the organization/institution specific needs.

For more information, please contact us at sds@smartdatasolutions.net or visit our website at <http://www.smartdatasolutions.net/>.

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