# MAJOR EPA INFORMATION SYSTEMS

# USING

# DATA PROVIDED BY STATE AND LOCAL AGENCIES

for discussion at the
meeting of the

EPA/STATE ADVISORY COMMITTEE

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# MAJOR EPA INFORMATION SYSTEMS using DATA PROVIDED BY STATE AND LOCAL AGENCIES

## AIR INFORMATION SYSTEMS

- Storage and Retrieval of Aerometric Data System (SAROAD)..... ambient air quality data
- Compliance Data System (CDS) ..... compliance status and enforcement activities re: facilities emitting air pollution
- National Emissions Data System (NEDS)....estimated emissions of criteria air pollutants

## WATER INFORMATION SYSTEMS

- Storage and Retrieval of Water Quality Data (STORET).....ambient water quality data and data on facilities discharging pollutants into water bodies
- Permits Compliance System (PCS).....permit and discharge information on facilities regulated under the National Pollution Discharge Elimination System program
- Federal Reporting Data System (FRDS).....information on quality of drinking water and violations of drinking water standards at specific public water supply systems

## SOLID AND HAZARDOUS WASTE INFORMATION SYSTEMS

- Hazardous Waste Data Management System (HWDMS).....information on generators transporters, treaters, storers, and disposers of waste regulated under the Resource Conservation and Recovery Act
- Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS).....information on management and cleanup actions at hazardous waste sites on EPA's National Priorit[illegible]

PESTICIDES AND TOXIC SUBSTANCES INFORMATION SYSTEMS

° FIFRA and TSCA Enforcement Systems (FATES).....information on compli rates and enforcement activities associated with facilities that produce and distribut pesticides and toxic chemicals and with improper use of pesti and toxic chemicals

ADMINISTRATION AND MANAGEMENT INFORMATION SYSTEMS

° Grants Information and Control System (GICS).....information on use of funds for construc tion grants, program and research grants, and interagency agre ments

# STORAGE AND RETRIEVAL OF AEROMETRIC DATA SYSTEM (SAROAD)

**PURPOSE:**

To provide automated storage and retrieval of ambient air quality data for Federal managers.

**SOURCE OF DATA:**

Data comes from a network of almost 6000 State and Local Air Monitoring Stations (SLAMS) and National Air Monitoring Stations (NAMS) operated by State/local air pollution control agencies.

States are required to submit SLAMS/NAMS data quarterly. Most States submit data through batch processing on a monthly basis; the data is edited and updated by Regions personnel monthly and sent to EPA HQ by mail; a few States and Regions can send data diretly by teleprocessing. A few other States use EPA's UNIVAC to operate their own systems, and make that data available to EPA.

**DATA IN SYSTEM:**

SAROAD contains information on:

1) Parameters, including information on the pollutant and meterological data items measured, along with methods of collection and sample analysis used.

2) Sampling sites and descriptive information about the sites.

3) Air quality data.

**FUNCTIONAL CAPABILITY:**

° Can handle data preparation, validation, and retrieval of aerometric information from the States and territories.

° Is capable of processing data on a quarterly or monthly basis.

° Has mapping and graphics capability.

**ACCESS:**

° States do not have access to SAROAD data.

CURRENT USE:

EPA Headquarters and Regional offices use SAROAD to access ambient air quality data, as required for analysis and other needs.

EPA Headquarters Air office uses to develop annual publications on pollutants by monitoring site and on trends.

PROBLEMS:

- SAROAD data can not be easily integrated for analysis with other air data systems storing emissions (NEDS) or compliance (CDS) information.
- States can't access SAROAD and, as a result, have no incentive to provide high quality, timely data to EPA.
- SAROAD is not a user friendly system; input and use are difficult.
- Can not store comments on data.
- SAROAD data are on an obsolete EPA computer (UNIVAC).
- Software requires very experienced operators.

PLANNED ENHANCEMENTS:

- EPA is reviewing whether the Agency can develop a new information system, AIRS, that would provide States with direct access to ambient, emissions, and compliance data now located in SAROAD, NEDS, and CDS.
- SAROAD is being converted to EPA's IBM 3081 mainframe.

EPA SPONSOR: Office of Air Quality Planning and Standards
Systems Manager: John Bosch

HARDWARE/ SOFTWARE: National system operates on EPA's UNIVAC 1110 mainframe. Regional offices perform data entry and report production by signing on to the UNIVAC.

# Compliance Data System (CDS)

PURPOSE: To provide Federal and State air program managers information on compliance status and enforcement activities related to facilities subject to Federal and State air emission regulations for New Source Performance Standards (NSPS), State Implementation Plans (SIPs), and National Emission Standards for Hazardous Air Pollutants (NESHAPS).

SOURCE OF DATA: Facilities' emission limitations are contained in permits maintained by State and local air pollution agencies; State and local agency staff conduct inspections of facilities' compliance with these limitations and then report their findings to Regional offices.

- States send data to Regional Offices periodically (generally quarterly); they can submit electronically, on computer files, or on manually coded forms.
- Regional staff load the manually submitted data from the States into their CDS system.

DATA IN SYSTEM:

- ID information on facilities required to meet air emisison regulations (e.g., name, address)
- Inspection schedules
- Violations
- Compliance status and schedules
- Enforcement actions (e.g., administrative orders, penalties)
- Legal actions (e.g., DOJ referrals, Civil/ criminal cases)

DATA ACCESS:

- States can access CDS directly through telecommuniation lines or through links to Regional computers.
- Several States that have their own management information systems use a converter program to reformat data to meet CDS input specifica-

tions, with very little interaction with Regions.

° Regional Offices obtain reports through their own mini-computers.

° EPA's Headquarters Air program staff use terminals at Headquarters to access the CDS system directly.

FUNCTIONAL CAPABILITY:

Produces a variety of reports, graphs, and charts:

° "Quick look" reports, listing the name, address and compliance status of facilities.

° Source data reports containing compliance status information and enforcement action information for specific sources.

° Milestone reports showing the number of emission points by compliance status for the States within a Region and for the Region as a whole.

° Summary reports of enforcement actions taken by States and Regions, type of action in all air quality control Regions (AQCRs).

° Reports summarizing the compliance status and enforcement actions for selected facilities.

° Special reports in "prevention of significant deterioration" (PSD) showing the status of facilities undergoing the permit review steps associated with PSD regulations.

CURRENT USE:

° 25 to 30 States use CDS.

° EPA uses CDS to track the compliance status of industries subject to EPA air emissions and planning requirements.

° EPA Headquarters staff use CDS to report to the Deputy Administrator on items tracked in EPA's accountability report.

PROBLEMS:

- While EPA Headquarters thinks the quality of data in CDS good, timeliness of information in CDS can be a problem. Some States report information on a quarterly basis. This lag between available and actual information at any given time is considered too long by some users.
- Cannot easily cross-reference information in CDS with related ambient and enforcement information in SAROAD or NEDS.

PLANNED ENHANCEMENTS:

- CDS has been modified to maintain "continuous emissions monitoring" (CEM) data. The CEM subset provides users with quarterly reports of excess emissions.
- EPA plans to more actively promote use of CDS by all the States.

EPA SPONSOR:

- Office of Air Quality Planning and Standards (OAQPS)
  System Manager: Howard Wright

HARDWARE/ SOFTWARE:

- National system operates on EPA IBM 3081 mainframe. Regional Offices have their own CDS versions on PDP-11/70 minicomputers.
- Six States directly access CDS; States that use their own systems use a converter program to send data to CDS. Software is written in COBOL.

# National Emissions Data System (NEDS)

PURPOSE: To provide Federal air pollution program managers information on estimated emissions of criteria air pollutants from facilities subject to compliance with provisions of the Clean Air Act (CAA).

DATA SOURCE: As a requirement of the Clean Air Act, States are required to obtain emissions information from the approximately 55,000 industrial and municipal facilities regulated under the Act. Most of this information is reported to the States by the facilities themselves; States also get emissions information from operating or construction permits, emission inventories, and other activities.

- State air agencies annually submit estimated emissions information on the facilities in their jurisdiction to EPA Regional offices. Most States have automated systems they use to prepare computer tapes of this data; other States send hard copy reports to the Region.

- Regional staff edit State tapes/data, do quality checks, and then notify Headquarters to update the NEDS master file.

DATA IN SYSTEM: Emissions data on each of the five criteria pollutants (particulates, SOx, NOx, CO, and reactive volatile organic compounds (VOC)). Emissions estimates are provided for:

- Point sources, i.e., stationary sources large enough to be identified and tracked individually. These are generally plants with actual emissions of more than 100 tons/year are of the 5 criteria pollutants.

- Area sources, i.e., stationary and mobile sources which individually emit less than 100 tons/year and are too small and too numerous to keep individual records on. Area sources are reported collectively on a county basis (e.g., automobiles by county).

FUNCTIONAL CAPABILITIES:

- Generation of overall point source/area source data.
- Development of estimates on emission of each of the criteria pollutants regulated under the CAA for a specific facility or other source.
- Generation of various reports, ranging from listings of individual point and area sources to summary reports which aggregrate data in a variety of ways or condense the data from many sources into one report.
- Numerous selection and sorting criteria available for reports processing.

ACCESS TO DATA:

- States do not have direct access to NEDS data, with the exception of a few States that have a computer link.
- Regions and EPA HQ access NEDS in two ways:
  - batch capability
  - interactive retrieval

CURRENT USE:

- EPA Headquarters uses to store and retrieve data on area sources.
- EPA HQ uses NEDS data for supporting acid rain research.
- Determine national air emissions trends.

PROBLEMS:

- Ouality of data poor.
- Data not reported by States in a timely way, or kept updated; they do not have access to it once they report it, so they have no incentive to ensure good data.
- Cannot handle emissions data for lead, inhalable particulates ($PM_{10}$), air toxics, or acid deposition precursors other than $SO_x$ and $NO_x$. (There is an auxiliary system for lead data.)
- System is housed on a obsolete computer.
- Extremely difficult to cross-reference with air systems containing ambient (SAROAD)

or compliance (CDS) data.

° Very limited ability to store comments on data.

° No ability to accommodate additional data States may want to put in.

° Software requires very experienced operators.

PLANNED ENHANCEMENTS:

EPA is considering developing a new system under ADABASE (AIRS), although budget restrictions may preclude this.

Updating of NEDS is under consideration.

EPA SPONSOR: Office of Air Quality Planning and Standards
Systems Manager: Charles Mann

HARDWARE/ SOFTWARE: National system operates on EPA's UNIVAC 1110 mainframe, using COBOL.

# Storage and Retrieval of Water Quality Data (STORET)

PURPOSE: To provide EPA Federal, State, and local water pollution control officials with capability for automated storage, retrieval, and analysis of ambient water quality data, including levels of conventional and toxic pollutants in water and sediment, and in plants and animals found in the water.

SOURCE OF DATA: State water quality officials operate water quality monitoring programs, including operating networks of water quality sampling stations, conducting intensive stream surveys, and evaluating biological quality. The data from field and laboratory analyses are collected by State/local officials or contractors, and submitted to STORET either directly or through Regional offices.

The STORET system also contains data on facilities discharging into U.S. water bodies.

States can submit data by:

- Keypunching data onto cards and transmitting via a card reading terminal
- Entering data via a low-speed keyboard terminal (batch or interactive) or, in one State, a personal computer
- Entering data by mailing tapes to EPA Headquarters

DATA IN SYSTEM:

- Water monitoring station and sample identification data, which describes and categorizes the type ( fish tissue, sectional, facility, well) and geographical and hydrological location where a sample was taken and the conditions under which a sample was taken (e.g., fish tissue or facility sample taken on a certain date, at a certain time, using specific sampling techniques, and in water of a certain depth);
- Parametric data which shows the results of the field observations or laboratory analyses.

FUNCTIONAL CAPABILITY:

° Tabular listings of data values, statistical summaries of parameter values, environmental mapping, and a number of graphical displays.

° Interactive retrieval procedures that provide listings of individual data values for specific sites, and summaries and plots of such values.

° Numerous water quality monitoring station selection options including:

- choosing areas of interest by latitude/ longitude coordinates,

- selection by State and county

- selection by hydorlogic basin, or by river segment by type of monitoring sites: water, sediment, fish, well, facility.

ACCESS TO DATA:

° State/local and Federal officials have direct and interactive access to STORET through the use of high and low speed terminals.

CURRENT USE:

° Principal uses are:

- Establishment of water quality baselines

- Analysis of trends

- Determination of impacts of municipal and industrial discharges into the Nation's waters

- Evaluation of the effectiveness of pollution abatement efforts

- Preparation of reports to Congress

- Development of environmental impact statements

- The setting and revision of standards and criteria and the writing of permits for effluent discharge

- Reporting violations of established water quality standards

- Providing graphic displays (such as station location displays, which illustrate monitoring coverage over a selected geographical area)

- Generation of waste load allocations

- Support for EPA's basic water monitoring program

° Other activities/analyses supported include:

- Ground water monitoring
- Pretreatment analysis
- Fisheries protection
- Water rights compliance
- Shellfish protection
- Urban and non-point source runoff
- Acid rain
- Underground injection control
- Acid mine drainage

Principal users are:

- EPA Headquarters and Regional offices
- State Water Quality Agencies
- U.S. Forest Service
- U.S. Army Corpos of Engineers
- U.S. Bureau of Reclamation
- U.S. Geological Survey
- Numerous local, regional, interstate and private organizations

PROBLEMS:

° Quality of some data in the system is not adequately specified by persons inputting data

° Necessary to learn IBM's Timesharing Option (TSO) to gain access for batch processing, although this is not the case for interactive communication

PLANNED ENHANCEMENTS:

° The Office of Water has formed a workgroup of Headquarters, Regional, and State staff to work on ways to improve the ability to integrate information systems containing water quality and related data.

- EPA will modify STORET to expand record key to accomodate data from various media.
- EPA has modified input procedures to allow users to do more advanced analysis of water quality data.
- EPA will build interfaces to other water databases such as the Office of Water's Industrial Discharge File; STORET will provide a single source for access to water quality and related data.
- EPA will operate a clearinghouse function for user-written programs and routines to provide another tool for the pooling and sharing of data and analyses.

EPA SPONSOR: Office of Water Regulations and Standards
System Manager: Edmund M. Notzon

HARDWARE/
SOFTWARE: National system operates on EPA's IBM 3081 mainframe. Regional, State, and other users access STORET via IBM's Timesharing Option (TSO) or WYLBUR terminal command language.

# PERMIT COMPLIANCE SYSTEM (PCS)

PURPOSE: To provide capability for automated storage, retrieval, and analysis by Federal and State managers of permit and discharge information on facilities regulated under the National Pollutant Discharge Elimination System (NPDES) program administered by EPA's Office of Water.

SOURCE OF DATA: Reports submitted to State and EPA authorities by the more than 65,000 industrial and municipal facilities that have permits under the NPDES program. Facilities must sample effluent on a daily, weekly, or monthly basis and then regularly report the monitoring results to State or EPA authorities, depending on their delegation status.

- 14 States with NPDES delegation enter data into PCS themselves:
  - -- Dial-up Regional minicomputer and enter using interactive software
  - -- Dial-up EPA National Computer Center (NCC) to enter data in batch mode or interactive mode
- Regions are required to perform coding for balance of delegated States and for non-delegated States.

DATA IN SYSTEM:

- Identification information for industrial and municipal facilities with NPDES permits
- Outfall and limits data from NPDES permits
- Effluent data from monthly Discharge Monitoring Reports (DMRs) submitted by NPDES permittees
- State and EPA inspection data
- Compliance schedules and violations
- Enforcement actions and dates

FUNCTIONAL CAPABILITY:

- Identification of effluent, compliance schedule, and DMR reporting violations.
- Generation of standard and ad hoc reports, including:
  - -- Quarterly Non-Compliance Report (QNCR)
  - -- Compliance Schedule Forecast Report showing events and dates for compliance actions
  - -- Limit Summary Report listing discharge limits by facility for each NPDES parameter
  - -- Quicklook and Milestone Reports which allow users to retrieve and tally information in PCS
- INQUIRY retrieval capability which allows users to perform interactive queries.
- PCS ADABAS data entry which allows users to perform interactive data entry.
- User documentation and support for training and technical assistance.

DATA ACCESS:

- States access PCS to retrieve data by submitting batch or interactive requests to NCC.
- Some States request hard copy reports from EPA Regions.

CURRENT USE:

- EPA Regions and Direct State users maintain at a minimum identification and inspection information for all NPDES permittees.
- Regions and States use as program management too and to report required data to EPA Headquarters.
- EPA HQ uses PCS for reports to Agency management and Congress re: NPDES program.

PROBLEMS:

- Some information is incomplete.
- Unable to store daily effluent limits, maintains only monthly average for each parameter; some users need daily values for permit writing and enforcement actions.

PLANNED ENHANCEMENTS:

- Conversion to EPA standard Data Base Management System (ADABAS) just completed; is to provide improved data entry and reporting, additional tracking capabilities.
- EPA preparing clear policy re: PCS use that should address major data quality issues (completeness and timeliness).
- National Municipal Policy tracking will be in PCS by end of FY 85.

EPA SPONSOR: Office of Water Enforcement and Permits (OWEP)
System Manager: Dela Ng

HARDWARE/ SOFTWARE:

- National system operates on EPA IBM 3081 mainframe using ADABAS data base management software
- Regional minicomputer data entry software operates on DEC 11/70 minicomputers
- Remote users (Regions and States) access system by means of dial-up service through Tymnet and Telenet public data networks

# Federal Reporting Data System (FRDS)

PURPOSE OF SYSTEM:

To provide Federal managers with a centralized data base of information on public water supply system (PWSSs) to assist them in their program oversight responsibilities.

SOURCE OF DATA:

Public water supply systems must regularly monitor the quality of their drinking water and report that quality to State agencies. When a violation occurs, State agencies periodically (each quarter) report these violations to EPA.

- 25 States use EPA's Model States Information System (MSIS) to maintain data on their Public Water Supply programs. These States transmit the data quarterly (via direct telecommunication or magnetic tape) to the Region, which performs a quality control check and forwards it to EPA which updates FRDS. Several other States have their own software package and either send hardcopy reports (generated from their system) to the Region or automatically send reports to FRDS using a converter program.

- The remaining States send hardcopy reports to the Region, which enters the data in FRDS.

DATA IN SYSTEM:

- Facility identification information for each PWSS, including identification number, location (e.g., latitude/longitude), owner, water source, type of treatment provided, plant type, and any variances granted.

- Violations data describing the type, severity and date of violation.

- Enforcement information (e.g., type, date, status).

FUNCTIONAL CAPABILITY:

- Provides lists of all active PWSSs and their compliance status.

- Creates charts summarizing the regulated community (e.g., percent of population served, average size of each type of PWSS, violations by county or State).

- Provides tables showing status of systems (e.g., violations by type of violation, disposition of violations).

- Provides summaries of all enforcement actions, highlighting those which have not been resolved.

DATA ACCESS:

- Each State may access FRDS using an online, interactive retrieval package.

- Headquarters and Regional staff access the system directly using the same online retrieval software as the States.

CURRENT USE:

- Headquarters uses FRDS to evaluate the performance of each Region in overseeing the State programs. Headquarters also uses the system to prepare information for Congress and to develop summaries for SPMS reporting.

- The Regions use FRDS to assess the performance of each delegated State (e.g., ensure that the State takes timely and appropriate compliance actions against facilities with major problems. Regions provide copies of FRDS reports to their States.

- A few States (7-8) directly use the capabilities of FRDS to assist them in managing their responsibilities.

PROBLEMS:

- The system maintains data by individual Federal fiscal year beginning with FY 79. Some managers have indicated they need the capability to compare information from one quarter with the same information from the prior year. At present, they may have to perform multiple retrievals from FRDS to get this information.

PLANNED ENHANCEMENTS:

- ODW is modifying FRDS to allow it to constantly maintain data for a minimum of 5 Federal fiscal years in order to allow users to more easily analyze compliance trends and target inspections.

EPA SPONSOR: Office of Drinking Water
System Manager: Larry Weiner

HARDWARE/
SOFTWARE: National system operates on EPA's IBM 3081. The application uses the System 2000 data base management system.

# HAZARDOUS WASTE DATA MANAGEMENT SYSTEM (HWDMS)

PURPOSE:

To provide Federal and State managers with automated systems capability for managing facilities regulated under the Resource Conservation and Recovery Act (RCRA), which regulates generators, transporters, treaters, storers, and disposers of hazardous waste.

SOURCE OF DATA:

- All companies that generate, transport treat, store, or dispose of hazardous waste are required to submit information to the State environmental agencies or EPA Regional offices responsible for RCRA.
- The data in HWDMS is collected by State or Federal officials, depending upon which government level is authorized responsibility for the RCRA program. With the exception of seven States, the data is sent to the EPA Region where regional staff or their contractors enter the data into the system. The seven remaining States enter data directly into HWDMS using the EPA regional minicomputers from terminals located in the State offices.

DATA IN SYSTEM:

- Facility level data including facility location, mailing, owner and operator names and addresses; geographic information on the location of the facility; SIC codes.
- Waste process design type and capacity available at the facility, and the types of wastes actually processed as reported by facilities on their RCRA Notification Forms and Part A, Permit Applications.
- Action-events in the Part B permitting process; financial management data; closure/post-closure actions; and ground-water monitoring actions.
- Compliance and enforcement data related to compliance monitoring and enforcement actions that do not involve litigation. (Actions involving litigation are tracked when they

are filed and completed; civil and criminal actions are tracked in more detail in a system called DOCKET).

FUNCTIONAL CAPABILITY:

- HWDMS provides the following functional support to EPA Headquarters program offices, Regions, and States:
  - inventory of facilities regulated by RCRA.
  - RCRA Notification and Part A Permit Application processing support.
  - Management tracking capabilities for the Part B permitting process, RCRA ground-water monitoring actions, financial management reporting, closure/post-closure requirements, and compliance monitoring and enforcement actions.

DATA ACCESS:

- Seven States access HWDMS to enter data directly.
- Regional Offices directly access the system and print HWDMS reports locally.
- EPA Headquarters staff can access HWDMS using terminals in the EPA Headquarters Office.

CURRENT USE:

- Data collected in HWDMS is used to produce reports for EPA Headquarters, Regions and States that track permitting, ground-water monitoring, and compliance monitoring and enforcement actions. Includes summary report. statistical studies and various types of facility listings.
- EPA Headquarters uses the system as a primary source of data for management of the RCRA program, to include program planning, budgeting, and resource distribution.
- The Regions use the system in their day to day management of the RCRA prgram. (Many of the states would like to use the system in the same manner.)

- Regions and Headquarters use HWDMS to respond to Freedom of Information Act requests.

PROBLEMS:

- HWDMS was designed and developed to support one aspect of the RCRA program, i.e., the Notification and Part A permit processes. However, the system has been modified over the years to provide various types of support for which it was never intended. Requirements of the system have changed constantly as the RCRA program matured. The net result is a very large, complex System 2000 (S2K) data base attempting to serve the different types of information needs for the different levels of users -- aggregate information that allows Headquarters to perform its oversight functio more detailed information on a facility-speci basis for Regions and States, etc.

- Because of changes to the system, its comple ity, and personnel turnover in the Regions, there is a serious training need. There is a very limited number of users who really understand the capabilities and operation of the system.

- The System 2000 (S2K) data base query langua is not very easy to use, especially with a very large, complex system such as HWDMS.

PLANNED ENHANCEMENTS:

- System modifications are planned to allow reporting of FY85 compliance monitoring and enforcement data.

- The HWDMS Version 5 and Version 6 data structures are to be merged to provide capabilities Regions need for daily program management and those Headquarters needs for oversight reporting.

- The development of an extensive edit capabili for operation on EPA's IBM mainframe to allow States to submit their RCRA State reporting data in machine readable form is planned.

EPA SPONSOR:

Office of Solid Waste and Emergency Response
System Manager: Steve Levy

HARDWARE/
SOFTWARE:

- The system operates on EPA's IBM 3081 mainframe. There are ten physically separate System 2000 (S2K) data bases, one for each Region.

- Data entry software was written in INFORM and operates on the Region PDP 11/70 minicomputer. The ten S2K data bases are consolidated weekly using IDMS input/output capabilities and EPA-developed Relational Data System (RDS) software to consolidate the data into one large National data base.

# COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY INFORMATION SYSTEM (CERCLIS)

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formerly the
EMERGENCY AND REMEDIAL RESPONSE INFORMATION SYSTEM (ERRIS)
and the
PROJECT TRACKING SYSTEM (PTS)

PURPOSE: To provide EPA Headquarters and Regional Superfund managers with an automated inventory of abandoned and inactive, or uncontrolled, hazardous waste sites. CERCLIS also provides the capability for storing and retrieving information on management and cleanup actions under way at these sites.

SOURCE OF DATA:

The data in CERCLIS is the data collected by State and Federal officials and reported as part of hazardous waste site identification and cleanup activities.

Regional offices evaluate and enter all data with the exception of some financial data, which is entered by Headquarters staff.

CERCLIS was developed by modifying the software for the Office of Solid Waste and Emergency Response's Emergency and Remedial Response Information System (ERRIS) and the Project Tracking System (PTS). The CERCLA enhancement will allow integrated analysis of both sets of information. ERRIS and PTS are operating now; CERCLIS will replace these systems by the end of March.

DATA IN SYSTEM:

- Identification and location of uncontrolled hazardous waste sites
- Planned milestones for cleanup and progress against those milestones
- Cost of cleanup
- Descriptive data
- Region-specific data

FUNCTIONAL CAPABILITY:

° CERCLIS allows generation of a variety of standard reports including:

- site and alias name and location listings
- site descriptive listings
- event description listings
- event schedule listings
- financial listings
- site and event statistical reports

° An ad-hoc query capability is also provided for those users who are familiar with the S2K natural language capability.

DATA ACCESS:

° States do not have direct access to ERRIS/PTS and will not have direct access to CERCLIS.

° OSWER staff in Headquarters can access the system directly.

° Regional office staff can also access the system directly. Standard reports and the results of ad hoc queries are printed locally in each Regional office.

° Reports and machine readable files from the system are available to State and other outside users on request.

CURRENT USE:

° Regional and Headquarters staff produce standard reports for Headquarters and Regional office managers for program planning, management, evaluation, and external reporting.

° Regional office staff produce special reports for use in their Regions.

PROBLEMS:

Superfund program is relatively new (Dec., 1980) and is still evolving. Headquarters use of the system differs from regional needs in some areas. Therefore, active regional participation, which is required to assure data quality and completeness, is often lacking.

PLANNED ENHANCEMENTS:

CERCLIS will have additional data and capabilities which ERRIS and PTS have lacked, including:

- An identifier for sites where dioxin is present.
- The capability to include other than remedial event information.
- Reports combining site level and program/event level data.
- Multiple occurances of the same event type (remedial removal, enforcement, etc.) for a site and multiple occurrences of the same event type (preliminary assessment, feasibility study, etc.) for any given program.

EPA SPONSOR: Office of Emergency and Remedial Response, OSWER
System Manager: Terry Overson

HARDWARE/ SOFTWARE: National system operates on EPA's IBM 3081 mainframe and uses the S2K database management software. Regional and Headquarters offices perform data entry on PDP 11/70 minicomputers. Data entry software on the minicomputers was written and operates in INFORM.

# FIFRA and TSCA Enforcement Systems (FATES)

PURPOSE: To provide Federal managers automated capability to store and retrieve available State and Federal information on establishments that produce pesticides, and information on compliance rates and enforcement activities associated with the Federal Insecticides, Fungicides, and Rodenticides Act (FIFRA), which regulates production and distribution of pesticides, and the Toxic Substances Control Act (TSCA).

DATA SOURCE:

State agencies responsible for monitoring compliance with pesticide use regulations submit hard copy reports on enforcement actions they have taken to the Regional offices, which then enter data into mini-computers for transmission to EPA Headquarters.

DATA IN SYSTEM:

- List of pesticide-producing establishments, identifying parent company and types and amounts of products manufactured annually.
- Results of FIFRA and TSCA inspections and data on samples taken.
- Status of FIFRA and TSCA enforcement actions.
- For States with which EPA has cooperative agreements, projections and accomplishments for inspections, enforcement actions, and certifications.

FUNCTIONAL CAPABILITY:

- Is a single integrated repository of data on enforcement actions related to pesticides and toxic substances.
- Produces lists of pesticide-producing establishments, identifying parent company and types and amounts of products manufactured.
- Produces list of inspections, including name of site and types of samples taken.
- Compares projections vs accomplishments for enforcement and certification.

- Lists enforcement cases, showing type of response, responsible party, case milestones, and samples involved.
- Provides compliance histories for specific companies or establishments, listing all prior inspections, samples, violations, and enforcement actions.
- Generates, for specific States, a comparison of enforcement and certification projections and accomplishments.

DATA ACCESS:

- States do not have access to FATES.
- Regional Offices request reports through their minicomputers. In EPA Headquarters, OPTS staff use a terminal at Headquarters to access the system directly.

CURRENT USE:

- Limited use by Headquarters and Regional office pesticides and toxic substances staff to develop specific reports.

PROBLEMS:

- There are serious problems with data quality and timeliness of updates.
- System is difficult to use, so it is not frequently used.
- Reports do not meet some Regional needs.
- States do not have access to FATES.
- User support is in some cases inadequate.

PLANNED ENHANCEMENTS:

- The reporting format was recently modified to make the system's output more useful to OPTS in preparing HQ accountability reports.
- EPA is working to eliminate technical problems that have damaged portions of the data base, rendering much of the data suspect.
- Efforts to promote increased Regional Office use of FATES are planned.

- OPTS has determined that it may be necessary to redesign FATES or even create a new system better suited to the needs of all users, including States.

EPA SPONSOR: Office of Compliance Monitoring, Office of Pesticides and Toxic Substances
System Manager: John Martin

HARDWARE/
SOFTWARE:

- National System operates on EPA IBM 3081 mainframe.
- Regional data entry and report production operates on PDP 11/70 minicomputers using IDMS data base management software.

# GRANTS INFORMATION AND CONTROL SYSTEM (GICS)

PURPOSE: To provide EPA and State managers with automated storage and retrieval of information on EPA and State use of grant funds for construction grants, program and research grants, and Interagency Agreements to enable them to monitor award and use of those funds.

SOURCES OF DATA: The Grants Information and Control System contains three types of information:

- Construction Grants - GICS information on construction grants is based on the information States provide as part of the construction grant priority lists on grant application and award forms and various other documents. The Regions and States enter information into the GICS system.
- Program and Research Grants- Regional offices enter program grant information into GICS using information on grant application and award forms; EPA Headquarters enters information on research grants.
- Interagency Agreements- Information is entered by EPA Headquarters using research grant award forms.

DATA IN SYSTEM:

- Comprehensive information concerning all EPA grants and interagency agreements administered through EPA Headquarters and Regional offices.

FUNCTIONAL CAPABILITY:

- Identification of prospective projects, grant applications, and funded projects.
- Tracking of Regional milestones for the management of the construction grant program.
- National updates are run twice per week. There is also a daily update option which a Region can run between the national updates.
- More than 900 Regional/State-specific data elements and functional capabilities which support local grant and project activities.

° Customized data entry software or local update packages in the Regions.

ACCESS TO DATA: States, Regions, and Headquarters access the data in GICS.

CURRENT USE:

° EPA Headquarters and Regional office, and State staff use GICS to monitor award of grants and use of funds.

° Headquarters staff use GICS to develop reports to senior EPA managers, the Congress, the Office of Management and Budget, and the public.

PROBLEMS:

° On-line data entry capability is not available to all Regions and States.

° Users want daily updates; this capability is not available.

° Users want the system to be flexible enough to allow them to add data elements that are unique to their management needs.

° No on-line data retrieval capability; batch retrieval only.

FUTURE ENHANCEMENTS:

° GICS will be converted to the ADABASE data base management system during FY '85 and '86 to allow on-line retrieval, on-line data editing (with batch updating) and, also, distributed data entry via personal computers.

° GICS has recently been modified to enable it to handle a multi-million dollar program for asbestos abatement in schools.

EPA SPONSOR: Grants Administration Division, Office of Administra
Systems Manager: Harvey Pippen

HARDWARE/ SOFTWARE : The National system operates on EPA's IBM 3081 mainframe. Regional offices and State agencies access the system by using minicomputers (e.g., PDP 11/70's) and terminals.