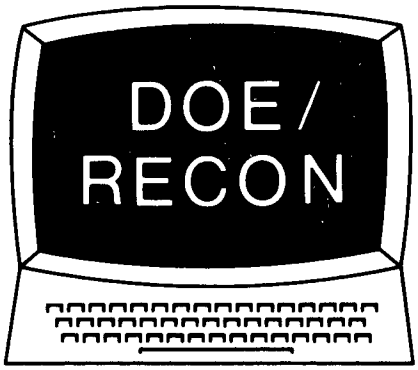

NEWSLETTER

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Contents

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DOE/TECHNICAL INFORMATION CENTER

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DISCLAIMER

RECON FILE SIZE

As of March 5, 1981, the size and span of coverage of each RECON file are as follows:

Data Base	No. of Items	Span of Coverage
1 EDB	652,985	Vol. 74:01-81:01
2 NSA	554,597	Vol. 21:01-33:12
3 RIP	13,371	Through Vol. 81:01
4 GAP	17,542	Through Vol. 80:12
5 IPS	1,430	Through Vol. 81:07
6 PRD	65,233	Through Mar. 1979
7 FED	3,354	Updated 2/14/81
8 NSC	149,907	Through Edition 119
9 WRA	146,704	Through 13:21
10 WRE	12,136	Reloaded 2/8/81
11 EMI	34,030	Reloaded 2/8/81
12 ERG	20,219	1965-1978
13 RSI	9,317	Reloaded 1/5/81
14 ETI	20,632	Updated 2/27/81
15 CIM	821	As of 11/09/78
16 NSR	59,714	Reloaded 11/13/80
17 ESI	85,410	Through Feb. 1981
18 EIA	24,028	Through Jan. 1981
19 NRC	12,408	Reloaded 6/20/80
20 RSC	2,165	As of 1/2/81
21 EIS	3,492	Reloaded 2/8/81
22 SLR	3,192	As of 12/11/80
23 NES	601	As of 4/9/80
24 TUL	52,326	Through Aug. 1980
26 ARF	11,195	Reloaded 12/10/79
27 SER	13,917	As of 11/21/80
28 SUP	1,240	Reloaded 2/14/81
29 NTB		Test File
30 GID		Test File
31 OGR	2,744	

For the most up-to-date listing of file size and coverage, use the HELP command ?COV, from which this display was derived.

RECON DATA BASE ACTIVITY

The table on RECON data base activity (Table 1, page 2) compares data base usage in 1979 and 1980 by number of user sessions and offline citations printed.

The data bases are listed in order of usage, with those most frequently used listed first. The total number of user sessions has grown from 60,913 to 73,155, a 20% increase. The Energy Data Base is still by far the most frequently used data base on RECON. Its share of user sessions rose from 58% in 1979 to 61% in 1980, a 27% increase. Nuclear Science Abstracts (NSA) ranks second in usage: 10%, followed by Water Resources Abstracts (WRA), 5%, and Environmental Mutagens Information (EMI) and Energy Research in Progress (RIP), both about 3%.

As for offline prints requested, the total number of citations printed dropped from 2,755,855 in 1979 to 2,415,946 in 1980. This decrease of 12% is partly due to the charges for DOE/RECON that were initiated in October 1979, which prompted users to be more careful in requesting offline prints. The new DELETE PRINTS command and the advent of 1200 baud terminals for on-line printing may also be factors in the decrease. Although EDB shared in this overall decrease in citations printed, its proportion of requests for offline prints expanded from 61% in 1979 to 67% in 1980. WRA, 9%, ranks second in number of citations printed, followed by Nuclear Safety Information (NSC), 6%, NSA, 5%, and EMI, 4%.

Table 1. RECON Data Base Activity.

		Sessions		Citations Printed	
		1979	1980	1979	1980
EDB	Energy Data Base	35,513	44,950	1,683,580	1,619,716
NSA	Nuclear Science Abstracts	6,993	7,261	230,223	114,842
WRA	Water Resources Abstracts	3,650	3,597	286,731	206,878
EMI	Env. Mutagens Info.	1,996	2,302	124,517	103,040
RIP	Energy Research in Progress	1,729	1,936	66,923	27,559
NSC	Nuclear Safety Info. Center	1,767	1,835	189,791	132,919
GAP	General and Practical Info.	1,714	1,647	35,295	34,024
ETI	Environmental Teratology	1,101	1,246	34,664	50,218
ESI	Env. Science Index	1,028	1,221	21,258	12,828
FED	Federal Energy Data Index	677	1,190	2,621	7,870
EIA	Energy Info. Abstracts	789	907	11,029	10,580
WRE	Water Resources Research	618	632	9,114	9,108
NES	National Energy Software	14	365	35	1,472
EIS	Epidemiology Info. System	89	359	261	930
IPS	Issues & Policy Summaries	0	478	0	1,273
PRD	Power Reactor Dockets	366	348	17,495	23,234
NRC	National Referral Center	368	337	5,171	2,343
API*	American Petroleum Data Base	554	309	6,011	34,694
CIM	Central Inventory of Models (DOE)	285	307	5,209	502
ERG	Enhanced Oil and Gas Recovery	202	303	3,647	3,471
SLR	FIRL Solar Products	0	289	0	1,071
TUL	Tulsa Data Base	390	284	11,287	4,190
NSR	Nuclear Structure Reference	199	254	1,530	1,753
RSI	Radiation Shielding Info.	129	222	5,177	9,083
RSC	Radiation Shielding Codes	76	111	416	164
NER*	National Energy Referral	318	109	1,963	856
ARF	Agent Registry File	184	86	1,853	100
NBI*	Natl. Biomonitoring Inv.	164	74	84	12
GID	GIDEP Failure Exp.		54		0
NTB	NASA Tech. Briefs		47		100
SER	Serial Titles		40		23
SUP	Numeric Data Test		34		1,093
OGR	Numeric Data Test		21		0
		60,913	73,155	2,755,885	2,415,946

*No longer available.

THE NUCLEAR SAFETY INFORMATION CENTER AND THE NSC FILE ON RECON

The Nuclear Safety Information Center was established in 1963 by the former U. S. Atomic Energy Commission in order to enhance communication between all elements of the expanding nuclear community. Since that time, the center has survived two major federal government reorganizations, including one that left it with two sponsors. The center is now sponsored by both the Nuclear Regulatory Commission (~5/6) and the Department of Energy (~1/6). The purpose of the center is achieved through the many services it provides to the nuclear community, including: (1) a bimonthly technical review, Nuclear Safety; (2) retrospective searches; (3) selective dissemination of information; (4) state-of-the-art reports; (5) indexed bibliographies; (6) data compilations; (7) consultation; and (8) special studies and evaluations.

Services 1 through 7 comprise the basic program of NSIC; they are available free of charge to our sponsors and their prime contractors. Special studies and evaluations (No. 8) are carried out at NSIC at the request of the agency or office funding the work.

Types of Nuclear Safety Information

The term "nuclear safety" means different things to different people. Even within the center, where we are inclined to use the broadest possible definition, we recognize two classes of nuclear safety information. The first is represented by the technical areas in which we maintain special competence; the second includes all other safety-related information that impinges to some degree on design, licensing, construction, and operation, as well as safety research, and pertains to all facilities in the nuclear fuel cycle. This second class is obviously very broad, and our depth of expertise is correspondingly more limited. On the other hand, the first class is quite specific and includes the following technical areas:

- Siting of nuclear facilities
- Transportation and handling of radioactive materials
- Heat transfer and thermal hydraulics (related to reactor accidents)
- Reactor transients, kinetics, and stability
- Fission-product release, transport, and removal
- Sources of energy release under accident conditions
- Nuclear instrumentation, control, and safety systems
- Electrical power systems (at nuclear power plants)
- Containment of nuclear facilities
- Reactor plant safety features
- Nonreactor plant safety features
- Reactor operational safety and experience
- Safeguards and proliferation
- Risk, reliability, and probabilistics

NSIC Information Analysis

NSIC is an "information analysis center," as defined by the Committee on Scientific and Technical Information (COSATI) of the Federal Council for Science and Technology, as opposed to being a "library referral center." Our technical experts are "on top" of the literature in their field,

for we enter about 1,000 documents a month into a computerized bibliographic data base, which now contains some 160,000 entries. Furthermore, each entry in the NSIC computer file contains abstracts, keywords, and other descriptive information (country of origin, language, type, source, an evaluation, etc.), as well as the usual bibliographic information. Thus, the documents may be retrieved using the standard RECON search technique.

Use of the resources and services of NSIC increased greatly following Three Mile Island. One of the most important themes emphasized in the aftermath of that accident was what can be learned from past operating experience of nuclear power plants in order to operate them safely in the future. Through a review of operating experience, significant events that have occurred, as well as events that might be precursors to more serious accidents, can be identified for the purpose of factoring this information back into the design, licensing, and operation of plants today.

NSIC is in a unique position to undertake special studies and evaluations because of its strong base program and its many years of experience. The technical staff of NSIC consists of some 20 professionals (12 equivalent full-time) and 10 support staff members (including both semi-technical and clerical capabilities). The technical staff provides the expertise for reviewing current literature for entry into our computer file and performing these special studies and evaluations.

Licensee Event Reports

For reviewing operating experience, the licensee event report (LER) is the focal point. (LERs include reports of abnormal occurrences, reportable occurrences, and safety-related events that occurred before the term LER came into existence in 1974.) The LER is a legally required document representing a violation of the plant's technical specifications or of certain operating conditions specified by the Nuclear Regulatory Commission (NRC). NSIC receives approximately 350 per month for entry into our computer file. Most of these are insignificant in terms of plant and public safety but are required to be reported for completeness; the rest (a small percentage) are potentially significant from an operational and/or safety standpoint.

The NSIC data base contains the most complete file of U.S. reactor operating events - LERs and their predecessors - in existence. The total number of events on file is approaching 25,000. The file has been commended by organizations such as the Advisory Committee on Reactor Safeguards for being comprehensive and easily understood.

Special Studies and Evaluations

LERs are vitally important for the special studies and evaluations conducted by NSIC. Two of these studies will be briefly summarized to illustrate how LERs and other information in the NSC file on RECON can be used:

1. The Accident Sequence Precursor (ASP) Study is being conducted at NSIC for the NRC. The study involves reviewing LERs for events at light-water power reactors between 1969 and 1981 in order to identify and categorize potentially significant accident sequence precursors. Approximately 18,600 LERs concerning events that occurred during the 1969-1979 period were screened for such potential precursors.

2. A review of the complete operating experience of two nuclear power plants through 1979 was performed by NSIC in 1980 for the NRC in its Systematic Evaluation Program. Under this program, the safety margins of the design and operation of the 11 oldest operating commercial nuclear power plants in the United States are being reevaluated in terms of present licensing and safety criteria. The review for each plant included data collection and evaluation of availability and capacity factors, forced shutdowns, power reductions, reportable events (Reportable Occurrence Reports, Licensee Event Reports, etc.), and environmental considerations.

The NSC file was extremely valuable in this latter program for locating documents containing operating data and information in addition to the LERs.

Other Documents Relating to Operating Experience

There are four major types of documents relating to operating experience information for nuclear power plants that are indexed into the computer file:

1. LERs, which have already been discussed;

2. Reports to Congress on Abnormal Occurrences at nuclear facilities (NUREG-0090 series of reports);

3. NRC's "Power Reactor Event" series, bimonthly summaries of selected events at plants (formerly known as "Current Event" series);

4. NRC's Office of Inspection & Enforcement (IE) Bulletins, Circulars, and Information Notices, which provide other plants and the nuclear industry with details on recent events.

Basic Search Strategies

Some basic search strategies for retrieving these documents from the NSC file are:

a. LERs

FAILURE * CATEGORY 17

Category 17 is an NSIC subject area entitled "Operational Safety and Experience." This basic LER search strategy can be coupled with specific reactors, reactor types, or failure keywords based on the subject of the search.

b. Reports to Congress on Abnormal Occurrences

CONGRESSIONAL ACTIVITY * (OPERATING EXPERIENCE + OPERATING EXPERIENCE SUMMARY + INCIDENT COMPILATION)

c. Power Reactor Event Series

(OPERATING EXPERIENCE + OPERATING EXPERIENCE SUMMARY) * (POWER PLANT, NUCLEAR + AGENCY, NRC + INCIDENT COMPILATION)

d. IE Bulletins, Circulars, and Information Notices

IE BULLETIN - FAILURE

This basic strategy will give all three types of IE documents. It is necessary to negate the keyword "failure" to remove LERs that were filed as a result of complying with an NRC requirement associated with an IE Bulletin. The LOOK feature or TL (title) index may be used to locate specific IE Circulars or IE Information Notices after having selected documents indexed to the keyword "IE Bulletin."

-Gary Mays, NSIC

HAEUSLEIN JOINS IAEA

Karl Haeuslein, the most senior DOE/RECON staff member, has taken an assignment at the International Atomic Energy Agency in Vienna, Austria. He is on leave from the Oak Ridge National Laboratory for one and possibly two years. Karl's wife Ursala and daughter Äntje will join him in June, after Äntje graduates from the Oak Ridge High School.

Karl and Ursala were born in East Germany where her parents and Karl's mother still live. He received his masters and Ph.D. degrees in mathematics from Leipzig University. In 1963 he went to ORNL after being employed by IBM in West Germany for five years. Karl joined the RECON project in the early 1970s and he has been the chief architect of the improved versions of RECON.

-Leon Young, ORNL

RECON STATISTICS

RECON uptime for February was 98.9%. This is the highest percentage of uptime ever recorded. There were 6,201 user sessions and 185,764 citations were output via the PRINT commands.

-Leon Yount, ORNL

DOE/RECON CALENDAR

April 17	RECON Holiday: Good Friday
June 8-10	Basic DOE/RECON Training (for newer users) Atlanta, GA
June 11-12	Basic DOE/RECON Training (for more experienced users) Atlanta, GA
Sept. 22-23	Advanced DOE/RECON Training (Limited to 2 persons per organization) Oak Ridge, TN
Nov. 16-18	Basic DOE/RECON Training (for newer users) Cleveland, OH
Nov. 19-20	System-independent EDB, and advanced DOE/RECON Training (for more experienced users) Cleveland, OH

Inquiries about training dates, locations, registration, and logistics may be directed to Mary Jane LaBelle at Lawrence Berkeley Laboratory at 415/486-6307, or FTS 451-6307. Inquiries about training content may be directed to Jo Robinson at the same number. Please send training requests to Jo Robinson, DOE/RECON Training Coordinator, Lawrence Berkeley Laboratory, Bldg. 50, Room 130, Berkeley, CA 94720.

Editor: Margaret Hu
Deadline: 20th of each month.
Please send your contributions or suggestions to the address on the back cover.
Tel. 415/486-6307, FTS 451-6307

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