

An information system to aid in the management of MPS program development and research operations. March, 1973

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AN INFORMATION SYSTEM

TO AID IN THE MANAGEMENT

OF MPS PROGRAM DEVELOPMENT AND RESEARCH OPERATIONS

Specifications

March, 1973

Prepared by:

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1.0 INTRODUCTION

This report documents a proposal to construct a computer-based information processing and retrieval system that would support the management of research, evaluation, project, and program development activities in the Madison Public Schools. In general, the system would (1) catalogue all MPS developing programs, research projects and important problems in a computer-based file, (2) provide a retrievable citation of each entry and (3) allow for indexing and searching the file in different ways to provide administrators with current information. This report considers in turn (1) the need for such a system (why?), (2) the objectives of such a system (what?), (3) preliminary thinking regarding the structure, content, and procedures of such a system (how?), and (4) the quality controls and evaluation of such a system (how to know?).

2.0 NEEDS

Following are the needs which this writer has identified for such a system.

2.1 <u>The results of research and development conducted internally need</u> <u>to be accessible by the Board of Education and professional staff</u> <u>in the schools and central office</u>. Currently, research efforts end up as a dissertation on somebody's shelf or as a report in the files of the Coordinator of Research and Testing. While the Research Coordinator can randomly disseminate these documents, he has no mechanism for bringing the relevant research to bear on a problem when the problem is identified. The Coordinator of Research is unaware that the problem has been identified by someone; that "someone" is unaware that available research bears on the problem. This lack of a linkage will become increasingly critical as more research is done on internal school system problems. One possible linkage is a readily accessible information system.

- 2.2 Professional staff need a convenient way of becoming aware of program development activities in other parts of the school system. It came as a shock to some administrators recently that five different program development activities were under way in kindergarten with each project having only limited awareness, if any at all, of what the other projects were doing. Under a decentralized system of program development, particularly as we have reorganized administratively, the dangers of parochialism and duplication of effort are obvious. Program development becomes increasingly expensive if four different schools or several different attendance areas engage in identical development efforts without building on each other or learning from each other. An information system can support a dialogue among parts of the school system that will preclude constant "rediscovery of the wheel."
- 2.3 <u>Professional staff need to be aware of important educational</u> <u>problems and needs identified by other professional staff in the</u> <u>system</u>. Recently, this writer received a call from two professional

staff in separate schools. Each of them, unknown to the other, had identified a similar problem in his building and wondered if some research would be possible. It seemed reasonable that these two administrators might look at their problem together so as to (1) compare and contrast the problem, (2) share the cost of gathering and analyzing the data, and (3) explore the possibilities of a joint project once the problem had been identified. An information system would increase the probability of such cooperation.

- 2.4 The superintendent and his staff need to be able to monitor the progress of projects and the progress toward meeting educational problems and needs. To do this currently involves a lot of wasteful file hunting, telephoning, and extensive reading. It becomes an expensive process for the chief administrative team to keep abreast of the "pulse and temperature" of program improvement activities in the school system. Moreover, as program improvement activities become more decentralized, it is increasingly difficult to judge the balance, cost, efficiency, and depth of those activities. However, a current information system accessible in a number of different ways could streamline the process.
- 2.5 <u>We need to be able to make the community aware of our instructional</u> research and development activities. The Madison Public Schools is a dynamic system with an extensive and diverse set of research and development activities underway at any one time. Everyone, it seems, is involved in the process of improving the effectiveness and

efficiency of our educational program. So much is going on, in fact, that we fail to communicate to the public how extensive such change is. We often end up telling them about a "few trees" and give them no sense of the "size of the forest." An information system which briefly described all such activity would allow them to see for themselves the extensiveness of our research and program development activities.

3.0 SYSTEM GOALS

This proposed R & D management information system has six goals.

- 3.1 To <u>maintain</u> a computer-based file of currently developing and recently completed educational programs, projects, and research or evaluation internal to the Madison Public Schools.
- 3.2 To maintain a computer-based file of educational problems and needs, each of which is targeted by at least one MPS administrator for action within the next 18 months.
- 3.3 To provide current indices of the file that an administrator could use quickly to look up a particular project or to identify a number of similar projects.
- 3.4 To fill requests for searches of the information file using certain key words supplied by the user.
- 3.5 To produce, using system information, a yearly summary report of research and development activities in the Madison Public Schools.
- 3.6 To produce special reports on request regarding such things as the frequency of citation of certain problems and needs, lack of apparent

progress for certain programs or projects, relative costs of certain development efforts, etc.

4.0 SYSTEM DESIGN

This section of the proposal outlines in detail the description of the information system that will reach the objectives above.

4.1 Kinds of Projects

The following kinds of projects will be filed as they pertain to a single school, group of schools, attendance area, department, or entire school system.

- 4.11 Curriculum development programs--e.g., Career Education, Reading, and Middle Schools (programs that are extensive, long range, and highly visible).
- 4.12 Curriculum development projects--e.g., summer curriculum projects (curriculum activities of shorter duration, although they may be part of a larger developmental program).
- 4.13 Instructional improvement projects/programs--e.g., Artist-in-Residence program, mainstreaming of handicapped children.
- 4.14 In-service education projects--e.g., Project MIRI, Negotiated Reading In-service, TABA In-service, Title III Human Relations In-service.
- 4.15 Evaluation projects--e.g., IMC evaluation, Pilot Reading Assessment, Graduate Follow-up Program.
- 4.16 Research projects--any project approved by the External or Internal Research Committee.

- 4.17 Administrative support projects--e.g., RADS, Area reorganization, School Administrative Practices study.
- 4.18 Identified educational problems--any problem to which an administrator plans to devote activity within the next 18 months.

Cross-referencing 4.11-4.18 with the various levels (individual school, several schools, attendance area, etc.) leads to the matrix presented in Figure 1. This gives some indication of the scope of available information from the system.

Figure 1				
FOR THE I	NFORMAT	ION SYST	ГЕМ	
A School	Several Schools	Attend. Area	Dept.	Entire System
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4.2 Record Information

The following kinds of information will include in each record: 4.21 Identification number and record type (4.11-4.18 above). 4.22 Title

- 4.23 Author(s)/Director(s)--(Last name only)
- 4.24 Descriptors--a set of words, in addition to those available in the title, that could be used to access a particular record when a key word search is made.
- 4.25 Abstract--a brief phrasal description (50-100 words) of the record that could include initiation date, projected completion date, available documentation, brief description of intent of activity, agencies involved, etc.
- 4.26 Location--attendance area, department and/or school responsible for the described activity.
- 4.27 Present state of record--depending on whether the record is a project, program, or identified need or problem, this item will provide updated information as to the progress being made. A standard list of progress descriptors will be provided for the person updating the record. (See Figure #2 for a proposed list of progress descriptors.) The date when the update was provided will also be a part of the record.
- 4.28 Proposed Cost--both a total proposed cost figure and a yearly cost figure will be assembled where possible.

Figure 2

POSSIBLE PROGRESS DESCRIPTORS*

Need Perceived Need Documented Planning Underway Written Plan Completed Development Underway Development Completed Piloting Underway Piloting Completed Implementation Underway Implementation Completed Data Being Gathered Data Being Analyzed Final Report Being Written Revision Underway Expansion Being Studied Project Completed Project Inactive Project Dropped

*Each of these would have to be defined briefly.

The preceding items give some indication of the scope of information that will be available. Figure 3 provides a sample of what a single record will look like.

Figure 3

- (a) 0001 In-service Education
- (b) MIRI--A Title III Language Arts In-service Project to Prepare Teachers for Curriculum Change (Gr. 6-12)
- (c) Tom Swenson/Karl Hesse
- (d) Descriptors: In-service, Language Arts, Federal Project, Behavioral Objectives, Cybernetic Evaluation, "Hands-on" Learning, Micro-teaching, Middle School, High School
- (e) Project Philosophy: Teach teachers as you wish them to teach children. Uses teacher unipacs, small group learning teams, micro-teaching, and an instructor monitoring system to introduce teachers to communication concepts and "hands-on" learning strategies. Involves 6-week summer workshop and individual follow-up during school year. (Initiated 1/1/70) Documentation available. To be locally extended during 1972-73.
- (f) Location: Curriculum Department, Middle School, High School
- (g) Project completed (9/1/72)
- (h) \$220,000: \$65,000--Title III

4.3 Output Available

- 4.31 The following kinds of printed indices will be routinely provided:
 - . alphabetically by author
 - . alphabetically by title
 - . alphabetically within predetermined subject categories
 - . alphabetically within location descriptors, e.g., by attendance area
 - . alphabetically by title key words or descriptor key words

- 4.32 A printed listing of all records in numerical sequence by record I.D. number. An entry in the author index will contain author's name plus record I.D. number. By looking up the appropriate record I.D. number in the printed listing, the entire record can be read.
- 4.33 An alphabetized list of key words can be provided from the title and descriptor field to be used in constructing search formulas.
- 4.34 A listing of complete records based on different key word formulas will be provided. For example, the system can provide a listing of Curriculum projects that are currently in a planning stage or a listing of In-service projects in the LaFollette Attendance Area.
- 4.4 System Development

Basically, the following tasks are envisioned:

- 4.41 Obtain from the administrative staff a brief listing of all projects and programs currently under development or implementation and any educational problems slated for action in the next 18 months. A specially devised <u>Search Form</u> (Appendix A) will be used.
- 4.42 All listings will be screened for possible duplication. Where questions appear, administrators will be contacted by phone for verification.
- 4.43 Each project, program or problem will be placed on a <u>New</u> <u>Records Form</u> (Appendix B). This form will be returned to the administrator so that he can supply the information necessary

for the full listing. Administrators will be given about 15 days for this extensive task.

- 4.44 Each <u>New Record Form</u> is returned by all administrators to the Office of Research and Testing.
- 4.45 Each record will be edited for:
 - . spelling and mechanics
 - . style
 - . accuracy
 - . length
- 4.46 Each record will be typed in computer output format (See Figure 3).
- 4.47 A copy of each typed record will be returned to the administrator for verification.
- 4.48 Each record is returned.
- 4.49 Each record is keypunched and verified.
- 4.410 A file is generated and placed on computer tape.
- 4.411 An initial listing is obtained.
- 4.412 The computer listing and the typed copy are proofread.
- 4.413 A listing and four indices (title, author, location, and category) are generated for:
 - . the superintendent's office
 - . each area director
 - . the Madison Exchange
 - . all directors of service functions

4.5 Adding and Maintaining Records

4.51 <u>Adding New Records</u> - The <u>New Record Form</u> will be used to allow a respondent to easily and quickly fill out a citation for problems, programs, and projects he has identified (Appendix B). <u>Written instructions</u> will accompany the form. Multiple copies of the form will be available to each administrator. An administrator will be instructed to fill out a form for a problem, project, or program only if he has <u>primary</u> responsibility. New entries can be submitted any time. Such entries will be added to the file once each month.

- 4.52 <u>Updating and Editing Records</u> Every six months the current record will be attached to a record update form (See Appendix C) and sent to the author/director cited in the record. That individual will make necessary changes and return the form for processing. The only fields likely to be frequently modified are the present status and proposed cost. Less frequent modification of the record abstract and record location could occur as the nature of a problem, project, or program changed.
- 4.53 <u>Deleting Records</u> Every six months the file will be purged of records that are no longer relevant. The following criteria will be used to determine record irrelevance. A record will be reviewed for deletion if:
 - 4.531 the project or program has been operational for at least 24 months.
 - 4.532 no change in the progress indicator is detected for at least 18 months.
 - 4.533 no resources are budgeted for two consecutive fiscal years.
 - 4.534 two consecutive requests to update the record are not returned by the project director.

4.6 User Requests

There are three kinds of user requests which the system can service.

. requests for listings

. requests for indices

. requests for key-word searches

The following steps in submitting a request are contemplated:

4.61 determine kind of request to be made

4.62 fill out appropriate request form (Appendix D)

- 4.63 consult user documentation for any questions related to the request form
- 4.64 obtain authorizing signature (principal or department head)
- 4.65 submit to the research and testing office

4.66 receive output in return mail within three to five days

Requests, for the most part, will be limited to MPS administrators. In any event, a request must be authorized by the principal or central office department head. A financial charge, similar to the current duplicating charge, will be placed on the service to control the number and legitimacy of requests. A charge schedule will be developed after operating costs have been more accurately determined.

5.0 TECHNICAL SUPPORT SYSTEM

At present the only utility information processing computer program available to meet the needs of this project is FAMULUS, now operable on the UNIVAC 1108 at the Madison Academic Computing Center (UW). A description of this program taken directly from the program reference manual follows:

5.1 Introduction and General Description

FAMULUS was designed as a personal documentation system providing extreme individual freedom to structure and update information files. Interchange and merger of files is also easily accomplished. However, its basic structure renders it suitable for a large number of other applications.

FAMULUS will maintain many types of information files which can be broken into units or records with sub-categories or fields which can be identified. In a personnel information file, the data on a single person comprises one record. The record may have up to 10 distinct fields in which are entered name, date of birth, job title, etc. In bibliographic files, the citation is the record, and fields are used for author, title, date, key words, abstracts, etc.

The eight FAMULUS subprograms are described in this manual. The subprograms and their functions are:

- <u>Edit</u> writes punched card input into a file. Allows the user to make corrections, additions, and deletions.
- <u>Sort</u> rearranges file order by changing the order of fields within records so the file can be re-alphabetized.
- <u>Merge</u> provides updating facilities and permits enlargement of the files through merging two individual files into one master file.
- Galley prints the file in any of several formats.
- <u>Vocab</u> prints in alphabetic order the words in any given field of a file, making lists of index terms, key words in title, etc.
- <u>Index</u> lists "key words" and tells in what records they may be found, thereby, indexing your file.
- <u>Search</u> scans stipulated field(s) in the records of a file, matching them against a user-prepared search question. Only those records that meet the search requirements are printed out.

Ossify - punches card deck equivalents of files, for use as safety decks or for massive correction operations.

5.2 Record Structure

FAMULUS accepts input records up to 4,000 characters in length with ten or fewer fields per record. Fields may vary in length but the total record cannot exceed 4,000 characters. There is no limit on how many records FAMULUS can handle. Where large files exist, FAMULUS can operate on portions and then merge them into a master file. Beyond the range of 3,000-5,000 records, depending on average length of each record, it is more efficient to process the file in sections.

5.3 Computer Compatibility

FAMULUS is currently operational on several computers: the Control Data Corporation 6400 and 6600; the IBM 360, Model 40 and larger; and the UNIVAC 1108. Subprogram control cards* are the same for each computer system control cards such as tape request cards, 360 job control language, job accounting cards, etc., will vary from computer to computer even when the model is the same.

5.4 Preparing Input

Before files can be keypunched for FAMULUS processing, some basic decisions must be made. Most fundamental is to determine how the records are going to be divided into fields, how many fields are needed, and what they will be labeled.

The avenues of access to each record, or to parts of a record, are determined by the way the record is broken into fields and by

^{*}Cards read only by FAMULUS and used to define the parameters of the file being processed.

the content in each field. Determination of fields is thus synonymous with selection of access points to the record in the file.

You must decide what access points you want to the items in your collection. Then you can label your fields. Field labels may be up to four characters in length, must begin with an alphabetic character, and may not include special characters such as punctuation:

PUBL (legal field label) PUB. (illegal field label)

For the sake of compatibility, if less than 10 fields are selected, it is wise to make dummy labels for the unused fields. You cannot change the number of fields originally declared; therefore, if you declare only seven fields and decide you need an eighth, you will have to rewrite all the cards into the file again. However, if the 10 fields are declared, the unused three fields are always available yet they cause neither extra punching nor additional processing time. Cards are punched only for fields with information present.

5.5 Descriptors

If you expect to use the information retrieval and indexing features of FAMULUS (the <u>Search</u> and <u>Index</u> programs), you must allocate a field for descriptors. Bibliographic and many other kinds of records will rely heavily on the quality of assigned descriptors. Some types of records can be handled adequately without descriptors by relying on the sorting and listing features of FAMULUS. Descriptors can be drawn from standard subject term lists, from the titles of bibliographic records, or they may be devised by the user.

5.6 Abstracts and Notes

You may want to include abstracts or notes in your record structure. If so, a field can be designated for this function. Since fields can be of any length, so long as the total for all fields is within the 4,000-character record limit, you may easily include abstracts or notes of 300 or more words. Three-hundred words take 1,800 to 1,900 characters; this still leaves space for over 2,000 characters of information in other fields. Existing FAMULUS-based collections include several with abstracts ranging from 150-300 words per record, while some users prefer only twothree sentence resumes, or none at all. Naturally, longer abstracts will increase processing time and, thus, cost.

5.7 Flexibility

FAMULUS is designed to allow the maximum possible flexibility in user adaptation. Any kind of non-tabular written information can be processed. Structuring of the file is user-defined, and format for keypunching is extremely simple. Once the user understands the basic operations of FAMULUS and how to accomplish them, he can use the more sophisticated features in conjunction with the basic tools to provide himself with individual, tailor-made information handling and processing services.

5.8 Field Lengths

As was noted earlier, FAMULUS will take almost any size field length as long as the total record does not exceed 4,000 characters. A character is defined here as a letter, number, space, punctuation mark, or special character. For purposes of this project, however, the following maximum field lengths will be maintained.

- 5.81 Identification number and record type (50 characters)
- 5.82 Title (100 characters)
- 5.83 Author(s)/Director(s) (50 characters)
- 5.84 Descriptors (200 characters)
- 5.85 Abstract (800 characters)
- 5.86 Location (150 characters)
- 5.87 Present state of record (35 characters)
- 5.88 Proposed cost (50 characters)

6.0 COST

6.1 Developmental Costs

While this proposal cannot anticipate all developmental costs, major costs can be outlined. Assuming an initial file of about 500 records, the following cost projections are suggested. <u>Both obvious and hidden costs are detailed</u>.

Preparation of detailed plan (Research Coordinator	\$ 500.00
Preparation and printing of retrieval documents	50.00
Administrator time to prepare records (30 min. @ \$12 per hour)	3,000.00
Secretarial timeedit, type, and proofread records (100 hours @ \$4 per hour)	400.00
Keypunch time(170 hours @ \$2 per hourstudent	
help)	340.00
Computer timecreate file and debug system Prepare user documentation (Research Coordinator	200.00
and research technician)rough estimate	1,000.00
Duplicate user documentation	50.00
Estimated Total	\$4,540.00

6.2 User Costs

A small pilot has been conducted with the FAMULUS system. Experience with the pilot suggests that computer costs for a user request will

vary between \$1.00 and \$3.00 with a limited number of requests (e.g., a complete file listing) going as high as \$6.00. If we get 300 user requests per year, our cost to the University Computing Center would be about \$600 [\$2.00 per request (average) x 300 requests]. Added to that would be the time required of a research technician to process each request (probably about 30 minutes per routine request). This cost would be .5 hours x \$2.50 per hour x 300 requests for a total of \$375.00 or \$1.25 per request to process.

6.3 Maintenance Costs

Assuming that the system is updated every six months, the following <u>yearly</u> maintenance costs are anticipated. For some items estimates are rough because of no cost experience.

6.31	Prepare and send out Update Retrieval Form student help (60 hours @ \$2.00 per hour)	\$	120.00
6.32	Administrator timecomplete Update Form (Average 5 minutes per form x 300 records x 2 times a year x \$12 per hour)		600.00
6.33	Edit and quality check returnssecretary (Average 5 minutes per form x 300 records x 2 times a year x \$4 per hour)		200.00
6.34	Keypunch and verify updated information (30 hours x \$2 per hour)		60.00
6.35	Complete updatecomputer time (2 times per year @ \$25.00)		50.00
6.36	Complete updateresearch technician time (40 hours x \$2.50 per hour)		100.00
	Estimated total	\$1	,130.00
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This would cost out to something slightly less than \$2.00 per record update.

7.1 The flow chart below details the flow of activities necessary to make the system operational. Following the flow chart is a timeline of main tasks.





7.2 The timeline of the major tasks below suggests how long it would take to make the system operational.

7.21	Present plan to administrative groups	By April 15
7.22	Gather all records	By May 30
7.23	Edit all records	By July 30
7.24	Keypunch all records	By October 30
7.25	Build computer file and debug	By November 30
7.26	Go operational	By December 15

8.0 QUALITY CONTROL AND EVALUATION

Quality control and evaluation of the system must be considered. A specific design for answering each of the questions below will be formulated as part of the operational plan. The accompanying <u>performance</u> <u>criteria</u> will provide for that evaluation design.

- 8.1 Do MPS administrators find the system useful?
 - PC1: Not less than 300 separate user requests will be made of the system each year.
 - PC₂: Not less than 75 different administrators will make user requests each year.
 - PC₃: Not less than 40% of the user requests will involve the use of a formal key-word search.
 - PC₄: Not less than 80% of a 30% random sample of system users will be able to cite a critical incident each year of how they used the information system to help make a decision.
- 8.2 Does the system capture in its file all of the relevant problems, programs, and projects meeting the inclusion criteria?
 - PC1: Problems, projects, and programs identified as having existed prior to the most recent update operation will never exceed 5% of the total existent file.
 - PC2: Not more than 1% of a random sample of the existing records in the file will at any given time be judged by an independent auditor as not fitting the inclusion criteria.

- 8.3 Is the system cost effective?
 - PC₁: The average cost to maintain, update, or service user requests will never exceed \$5 per request.
 - PC2: Over a three-year period the average cost to maintain, update, and process will decrease \$1 per year per request. (Through increased volume and efficiency)
- 8.4 Is the information in each record accurate and current?
 - PC1: Less than 5% of a 30% random sample of the file records will at any randomly selected time be judged by an involved individual other than the author as <u>not</u> accurately describing the program, project, or problem and its current status.

APPENDIX A

SEARCH FORM

PROGRAM/PROJECT SEARCH FORM R and D Information System Office of Research Madison Public Schools

Name	Title
MPS I	.ocation Date
1.	Please review each category below.
2.	Briefly describe in a word or two any projects or programs <u>under</u> <u>development</u> or <u>implementation</u> which you are directing or supervising
3.	Do <u>not</u> include projects or programs which you know about but which you do not directly supervise or coordinate.
4.	An identified project or program may be unique to a single school, group of schools, or an attendance area or it may be common to the entire district.
5.	If a particular category does not apply to you, write "Does Not Apply" in that category.
Α.	<u>Curriculum Development Programs</u> (This category refers to larger, long-range program development efforts e.g., Career Education, Reading, and Middle Schools. The program has identity and is doc- umented.)
	2.
	3.
	4.
	5.

B. Curriculum Development (These are specific, documented curriculum development projects of shorter duration, although they may be part of a larger curriculum development program. Examples include any of the summer curriculum projects. The project is documented.)

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Administrative Support Projects. (These refer to projects that are not directly instructional or curricular, but which support the edu	-
cational program. Examples include attendance area reorganization,	

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G. <u>Identified Educational Problems</u>. (This is a unique category. It focuses not on projects, but on educational problems to which <u>you</u>, as an administrator, plan to devote activity and resources during the next 18 months.)

1. 2. 3. 4. 5. 6. 7. 8. 9. 10.

NEW RECORDS FORM

A P P E N D I X B

Name _		Title	
MPS Lo	cation		Date
Exact	contents of RECORD		
1. Ch	eck the <u>one</u> most appropriat	te catego	ry for your record.
an an an an Sgrift a <mark>Lea</mark>	Curriculum Development Progra	ms	In-service Project
	Curriculum Development Projec	t	Evaluation Project
	Instructional Improvement Pro	gram	Research Project
	Instructional Improvement Pro	ject	Admn. Support Project
	In-service Program		Educational Problem
2. <u>Ti</u>	tle		
	thon(s)/Director(s)		

5. <u>Descriptors</u>:

	Location:	Attendance Area School(s)		
7.	<u>Project St</u>	<u>catus</u> (See instructions for Status Checklist.	.):	
8.	Cost: Tot	;a1		
8.	<u>Cost</u> : Tot Thi	cal s Year		
8. FOR	<u>Cost</u> : Tot Thi STAFF USE	cals Year ONLY		

APPENDIX C EDIT RECORD FORM

	OFFICE	OF RESEARCH	
Name		Title	
MPS	Location	Date	
1.	Immediately below is a co in our file. Please read below.	opy of your record exactly as d it and respond to the quest	it is worded ions immediately
	Paste	record here.	

EDIT	RECORD FORM (Continued)
3.	Has the status changed?YesNo If <u>yes</u> , indicate new status from status indicator checklist (page 8)
4.	Has the yearly cost changed?YesNo If <u>yes</u> , indicate new cost figure
5.	Are other changes in the record called for? Yes No If <u>yes</u> , make these changes right on the attached record. Be sure to <u>print</u> your change clearly.

6. <u>Other Comments</u>:

A P P E N D I X D USER REQUEST FORMS

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1.	Name	last First
2	Posit	tion
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5.	Туре	of request (check one ore more):
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C. KEY WORD SEARCH

Parallel Key Words

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