

of Engineers participation in State inspections should be limited to occasional selected inspections to assure the quality of the State program.

(m) *Training.* As indicated in paragraph (f) of this section, one objective of the inspection program for non-Federal Dams is to prepare the States to provide effective dam safety programs. In many States this will require training of personnel of State agencies in the technical aspects of dam inspections. The Office, Chief of Engineers is studying the need for and content of a comprehensive Corps-sponsored training program in dam inspection technology. Pending the possible adoption of such a comprehensive plan, division and district Engineers are encouraged to take advantage of suitable opportunities to provide needed training in dam safety activities to qualified employees of State agencies and, when appropriate, to employees of architect-engineer firms engaged in the program. The following general considerations should be observed in providing such training:

(1) Priority must be placed on inspection of dams and updating the national dam inventory; hence, diversion of resources to training activities should not deter or delay these principle program functions.

(2) Salaries, per diem and travel expenses relating to training activities of State employees will be a State expense. There will be no tuition charge for State employees.

(3) Architect-Engineer firms will be required to pay expenses and tuition costs for their employees participating in Corps-sponsored training activities.

(4) Corps-sponsored training will require that each trainee is a qualified engineer or geologist and will concentrate on engineering technology related directly to dam safety. (This may require screening of proposed candidates for training.)

(5) Under this program, the Corps will not sponsor training that is intended primarily to satisfy requirements for a degree.

(6) Training by participation in actual dam inspections and/or management of the inspection program should be encouraged.

#### APPENDIX A TO § 222.6—DIVISION ASSIGNMENTS

To facilitate better coordination with the States, the Division Engineers are responsible for the dam inspection program by States as follows:

*New England Division:* Maine, Rhode Island, Connecticut, Vermont, New Hampshire, Massachusetts

*North Atlantic Division:* New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, District of Columbia

*Ohio River Division:* West Virginia, Ohio, Kentucky, Tennessee, Indiana

*South Atlantic Division:* North Carolina, South Carolina, Georgia, Florida, Alabama, Puerto Rico, Virgin Islands

*Lower Mississippi Valley Division:* Mississippi, Louisiana, Missouri

*North Central Division:* Michigan, Wisconsin, Illinois, Minnesota, Iowa

*Southwestern Division:* Arkansas, Oklahoma, Texas, New Mexico

*Missouri River Division:* Kansas, Nebraska, South Dakota, North Dakota, Wyoming, Colorado

*North Pacific Division:* Oregon, Idaho, Montana, Washington, Alaska

*South Pacific Division:* Utah, California, Arizona, Nevada

*Pacific Ocean Division:* Hawaii, Trust Territories, American Samoa

#### APPENDIX B TO § 222.6—INVENTORY OF DAMS

(RCS-DAEN-CWE-17 and OMB No. 49-RO421)

1. The updating of the inventory will include the completion of all items of data for all dams now included in the inventory, verification of the data now included in the inventory, and inclusion of complete data for all appropriate existing dams not previously listed. Data completion, verification and updating will be scheduled over a three year period.

2. The inventory data will be recorded on Engineering Form 4474 and 4474A (Exhibit 2). The general instructions for completing the forms are printed on the back of the forms. Parts I and II of the forms are to be fully completed. The instruction for completing Item 29, Line 5, Para. II (Engr Form 4474A) is revised to conform identically with the hazard potential classification contained in the recommended guidelines for safety inspection of dams. Additional data has been added to designate Corps districts in which the dam is located, Federal agency owned dams, Corps owned dams, Federal agency regulated dams, dams constructed with technical or financial assistance of the U.S. Soil Conservation Service, and privately owned dams located on Federal property.

3. All inventory data will be verified utilizing all available sources of information and will include site visitation if required.

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4. The Inventory Data Base is stored on the Boeing Computer Services (BCS) EKS System in Seattle, Washington. The data is available to all Corps offices for queries using Data Base Management System 2000 (S2K).

a. To access the National Data Base log on BCS and type the following:

GET,DAMS/UN=CECELB  
CALL,DAMS

b. For current information and changes to the National Inventory Data Base, type:

OLD,HOTDAM/UN=CECIAT  
LIST

5. The inventory update data will be furnished and the National Data Base will be updated on a monthly basis. The monthly submission will cover all dams whose inventory data were completed since the last report. The update data will be loaded directly onto the Boeing Computer by the field office.

a. The procedure for loading the data on the Boeing Computer can be printed by accessing the Boeing Computer and listing the information file "HOTDAM." (See paragraph 4b. above.)

b. It is the responsibility of the submitting office to edit the data prior to furnishing it for the update. Editing will be accomplished by processing the data using the Inventory Edit Computer program developed by the Kansas City District. This procedure is described in the "HOTDAM" file.

6. Federal agencies will be uniformly designated by major and minor abbreviations according to the following list whenever applicable to Items 46 through 53. Abbreviations are to be left justified within the field with one blank separating major and minor abbreviations.

	Major	Minor
a. International Boundary and Water Commission.	IBWC	
b. U.S. Department of Agriculture:		
(1) Soil Conservation Service .....	USDA	SCS
(2) Forest Service .....	USDA	FS
c. U.S. Department of Energy Federal Energy Regulatory Commission.	DOE	FERC
d. Tennessee Valley Authority .....	TVA	
e. U.S. Department of Interior:		
(1) Bureau of Sport Fisheries and Wildlife.	DOI	BSFW
(2) Geological Survey .....	DOI	GS
(3) Bureau of Land Management .....	DOI	BLM
(4) Bureau of Reclamation .....	DOI	USBR
(5) Bureau of Indian Affairs .....	DOI	BIA
f. U.S. Department of Labor: (1) Mine Safety and Health Administration.	DOL	MSHA
g. Corps of Engineers:		
(1) Lower Mississippi Valley Division:		
(a) Memphis District .....	DAEN	LMM
(b) New Orleans District .....	DAEN	LMN
(c) St. Louis District .....	DAEN	LMS
(d) Vicksburg District .....	DAEN	LMK
(2) Missouri River Division:		
(a) Kansas City District .....	DAEN	MRK
(b) Omaha District .....	DAEN	MRO

	Major	Minor
(3) New England Division .....	DAEN	NED
(4) North Atlantic Division:		
(a) Baltimore District .....	DAEN	NAB
(b) New York District .....	DAEN	NAN
(c) Norfolk District .....	DAEN	NAO
(d) Philadelphia District .....	DAEN	NAP
(5) North Central Division:		
(a) Buffalo District .....	DAEN	NCB
(b) Chicago District .....	DAEN	NCC
(c) Detroit District .....	DAEN	NCE
(d) Rock Island District .....	DAEN	NCR
(e) St. Paul District .....	DAEN	NCS
(6) North Pacific Division:		
(a) Alaska District .....	DAEN	NPA
(b) Portland District .....	DAEN	NPP
(c) Seattle District .....	DAEN	NPS
(d) Walla Walla District .....	DAEN	NPW
(7) Ohio River Division:		
(a) Huntington District .....	DAEN	ORH
(b) Louisville District .....	DAEN	ORL
(c) Nashville District .....	DAEN	ORN
(d) Pittsburgh District .....	DAEN	ORP
(8) Pacific Ocean Division .....	DAEN	POD
(9) South Atlantic Division:		
(a) Charleston District .....	DAEN	SAC
(b) Jacksonville District .....	DAEN	SAJ
(c) Mobile District .....	DAEN	SAM
(d) Savannah District .....	DAEN	SAS
(e) Wilmington District .....	DAEN	SAW
(10) South Pacific Division:		
(a) Los Angeles District .....	DAEN	SPL
(b) Sacramento District .....	DAEN	SPK
(c) San Francisco District .....	DAEN	SPN
(11) Southwestern Division:		
(a) Albuquerque District .....	DAEN	SWA
(b) Fort Worth District .....	DAEN	SWF
(c) Galveston District .....	DAEN	SWG
(d) Little Rock District .....	DAEN	SWL
(e) Tulsa District .....	DAEN	SWT

7. Procedures for Revising and Updating the Inventory of Dams Master File.

a. To Change Correct or Add an Item. Submit a change card that contains the identification assigned to the dams (Columns 1 thru 7), the proper card code (Column 80) and only the item or items changed, corrected or added. Data on the master file is added or replaced on an item for item basis.

b. To Delete an Item. Submit a change card that contains the identification assigned to the dam, (Columns 1 thru 7), the proper card code (Column 80), and an asterisk (\*) in the left most column of the item or items to be deleted. More than one item can be changed, corrected, added on or deleted from the same card.

c. To Delete the Entire Data for a Dam from the Master File. Submit a zero (0) card punched as follows:

Columns 1 thru 7—Item 1 identification assigned to the dam  
Columns 8 thru 10—Item 2, Division Code  
Columns 11 thru 16—The word DELETE  
Columns 17 thru 79—Blank Spaces  
Column 80—A zero

8. Keypunch Instructions and Punched Card Formats.

Corps of Engineers, Dept. of the Army, DoD

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a. Table 1 describes the character set to be used for keypunch cards of Engr. Forms 4474 and 4474A.

b. Exhibit 1 is the EDPK keypunch instructions and punch card formats defining the data fields (Items) and card columns to be used in preparing punched cards in compli-

ance with the requirements of this regulation.

c. Exhibit 2 are prints of Engr. Forms 4474 and 4474A which are laid out in punch card format to facilitate punching cards directly from the completed forms.

Table 1

STANDARD CHARACTER SET AND CARD CODES

A	12-1	0	0
B	12-2	1	1
C	12-3	2	2
D	12-4	3	3
E	12-5	4	4
F	12-6	5	5
G	12-7	6	6
H	12-8	7	7
I	12-9	8	8
J	11-1	9	9
K	11-2	space	blank
L	11-3	,	0-3-8
M	11-4	.	12-3-8
N	11-5	-	11
O	11-6	*	11-4-8
P	11-7	/	0-1
Q	11-8	\$	11-3-8
R	11-9		
S	0-2		
T	0-3		
U	0-4		
V	0-5		
W	0-6		
X	0-7		
Y	0-8		
Z	0-9		

NON-STANDARD CHARACTER SET

(	12-5-8	0-8-4
)	11-5-8	12-8-4
"	8-4	
'	11-8-5	
+	12	
%	8-6	
;	12-8-7	11-8-6
:	8-2	
#	0-8-6	
@	8-5	
=	8-3	8-6

EDPC KEYPUNCH INSTRUCTIONS (Continued)							ER 1110-2-106 26 Sept 79
JOB TITLE INVENTORY OF UNITED STATES DAMS						JOB NO.	
CARD IDENTIFICATION CARDS O&I			SOURCE ENG FORM 4474				
SOURCE BLOCK	NAME OF FIELD	COLUMNS		No. COLS.	TYPE DATA *	JUST- IFY **	REMARKS-INSTRUCTIONS
		FROM	TO				
1	Card Number 0 Identity (State)	1	2	2	A	L	
1	Identity (Number)	3	7	5	N	R	
2	Div	8	10	3	A	L	
3	State	11	12	2	A	L	
4	County	13	15	3	N	R	
5	Congr Dist	16	17	2	N	R	
6	State	18	19	2	A	L	
7	County	20	22	3	N	R	
8	Congr. Dist	23	24	2	N	R	
9	Name	25	61	39	A	L	
10	Latitude	62	66	5	N	R	No decimal point is punched.
11	Longitude	67	72	6	N	R	No decimal point is punched.
12	Report Data (Day)	73	74	2	N	R	
12	Report Data (Mo)	75	77	3	A	L	
12	Report Data (Yr)	78	79	2	N	R	
	Card Number	80	80	1	N		Punch a 0
1	<u>CARD NUMBER 1</u> Identity	1	7				Repeat Item 1 card 0
13	Popular Name	8	43	36	A	L	
14	Name of Impoundment	44	79	36	A	L	
	Card Number	80	80	1	N		Punch a 1

\* A = ALPHA, N = NUMERIC    \*\* L = LEFT, R = RIGHT

ENG FORM 0-1817B  
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SHEET OF SHEETS

Exhibit 1



EDPC KEYPUNCH INSTRUCTIONS (Continued)							ER 1110-2-106 26 Sept 79
JOB TITLE INVENTORY OF UNITED STATES DAMS						JOB NO.	
CARD IDENTIFICATION CARD 3 & 4			SOURCE ENG FORM 4474A				
SOURCE BLOCK	NAME OF FIELD	COLUMNS		NO. COLS.	TYPE DATA	JUSTI- FY	REMARKS-INSTRUCTIONS
		FROM	TO				
1	<u>CARD NUMBER 3</u> Identity	1	7				Repeat Item 1 card 0
21	Type of Dam	8	19	14	A	L	
22	Year Completed	20	23	4	N	R	
23	Purposes	24	33	10	A	L	
24	Structural Height	34	37	4	N	R	
25	Hydraulic Height	38	41	4	N	R	
26	Impounding Maximum	42	49	8	N	R	
27	Impounding Normal	50	57	8	N	R	
27A	C. E. District	58	60	3	A	L	
27B	Ownership	61	61	1	A		
27C	Fed. Regulated	62	62	1	A		
27D	Prv't Dams/Fed Land	63	63	1	A		
27E	Soil Con. Ser. Ass't.	64	64	1	A		
27F	Verif. Date (Day)	65	66	2	N	R	
27F	Verif. Date (Mo)	67	69	3	A	L	
27F	Verif Date (Yr)	70	71	2	N	R	
	Card Number	80	80	1	N		Punch a 3
1	<u>CARD NUMBER 4</u> Identity	1	7				Repeat Item 1 card 0
28	Remarks	8	79	72	A	L	
	Card Number	80	80	1	N		Punch a 4

\* A = ALPHA, N = NUMERIC      \*\* L = LEFT, R = RIGHT  
 ENG FORM 0-1817B      B-9      SHEET OF SHEETS  
 1 OCT 66      Exhibit 1



EDPC KEYPUNCH INSTRUCTIONS (Continued)							ER 1110-2-106 26 Sept 79
JOB TITLE INVENTORY OF UNITED STATES DAMS						JOB NO.	
CARD IDENTIFICATION CARD 6,7,8, & 9			SOURCE ENG FORM 4474A				
SOURCE BLOCK	NAME OF FIELD	COLUMNS		NO. COLS.	TYPE DATA *	DIRE- CTI- ON **	REMARKS-INSTRUCTIONS
		FROM	TO				
1	<u>CARD NUMBER 6</u> Identity	1	7				Repeat Item 1 card 5
46	Owner	8	31	24	A	L	
47	Engineering By	32	55	24	A	L	
48	Construction By	56	79	24	A	L	
	Card Number	80	80	1	N		Punch a 6
1	<u>CARD NUMBER 7</u> Identity	1	7				Repeat Item 1 card 5
49	Design	8	25	18	A	L	
50	Construction	26	43	18	A	L	
51	Operation	44	61	18	A	L	
52	Maintenance	62	79	18	A	L	
	Card Number	80	80	1	N		Punch a 7
1	<u>CARD NUMBER 8</u> Identity	1	7				Repeat Item 1 card 5
53	Inspection By	8	40	33	A	L	
54	Inspection (Day)	41	42	2	N	R	
54	Inspection (Mo)	43	45	3	N	R	
54	Inspection (Yr)	46	47	2	N	R	
55	Authority	48	79	32	A	L	
	Card Number	80	80	1	N		Punch a 8
1	<u>CARD NUMBER 9</u> Identity	1	7				Repeat Item 1 card 5
56	Remarks	8	79	72	A	L	
	CARD NUMBER	80	80	1	N		Punch a 9

\* A = ALPHA, N = NUMERIC    \*\* L = LEFT, R = RIGHT  
 ENG FORM 0-18178    B-11    SHEET OF SHEETS  
 1 OCT 66    Exhibit 1

**PART I - INVENTORY OF DAMS IN THE UNITED STATES**  
(PURSUANT TO PUBLIC LAW 92-607)  
See reverse side for instructions.

FORM APPROVED OMB NO. 49-ROA21	REQUIREMENTS CONTROL SYMBOL DAM-CR-11
REPORTING NUMBER	DATE
1	1
2	2
3	3
4	4
5	5

[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]
<b>IDENTIFICATION</b>	DIVISION	STATE	CONGR DIST	COUNTY	CONGR DIST	COUNTY	NAME	LATITUDE (N...S)	LONGITUDE (W...E)	REPORT DATE
	8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80									DAY MO YR
										/ /

<b>IDENTIFICATION</b> <small>(Continued)</small>	<b>POPULAR NAME</b>
8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80	NAME OF IMPONDMENT

[15]	[16]	[17]	[18]	[19]	[20]
<b>LOCATION</b>	BASIN REGION	RIVER OR STREAM	NEAREST DOWNSTREAM CITY - TOWN - VILLAGE	DIST FROM DAM	POPULATION
	8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80				

[21]	[22]	[23]	[24]	[25]	[26]	[27]	[27A]	[27B]	[27C]	[27D]	[27E]	[27F]
<b>STATISTICS</b>	TYPE OF DAM	YEAR COMPLETED	PURPOSES	STRUCTURAL HEIGHT (ft)	HYDRAULIC HEIGHT (ft)	IMPOUNDING CAPACITIES	CORPS DIST.	OMN.	FED. R.	REV. E.	CSA	VERIFICATION DATE
	8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80			MAXIMUM	NORMAL	DA	MO	YR	BLANK	BLANK	BLANK	BLANK

[28]
<b>REMARKS</b>
8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

FORM 4474  
 ENG 1, DEC 77

EXHIBIT 2

GENERAL INSTRUCTIONS

This form is for use in preparing the inventory of dams in the United States under the requirements of the National Program for the Inspection of Dams, P.L. 92-367. All items of Part I and Part II (Lines 0-9) must be completed as instructed below. Print entries distinctly in ink or pencil. For letters o, z, and i, write Ø, Z, and I.

Write only one letter or numeral in each space; do not use more letters than blocks allowed for an item. Do not abbreviate on Part I. Leave one space between words and no space between code letters.

For all letter codes or word entries place first letters in left block of field. In word fields any alphabetic, numeric or special character may be entered. For all numerical entries, use only numerals placing the last digit of number in the right block of field, including trailing zeros. Do not include a decimal point! In fields where decimals are required values are to be placed around the decimal point printed on the form.

Leave blank those spaces where item does not apply, e.g., do not write "N/A", "--", "None", etc., unless instructed to do so by specific instructions. Use the remarks line when additional space is needed for an item, or to clarify an entry. Preface each remark with the item number. (See Item #28# or #56# instructions)

PART I

Item # 1# IDENTITY: The Division Engineer will assign and control the identity for dams in the states for which he is responsible. The first two characters of the identity will be the two-letter state abbreviation in accordance with Federal Information Processing Standards Publication, June 15, 1970 (FIPS PUB 6-1). In cases where a dam is physically located in two or more states, one state will be designated as the principal state for the identity. The last five (5) characters of the identity will be a sequential number assigned to identify dams within a state.

LINE 0:

Item # 2# DIVISION: Enter the three (3) letter office symbol for the division making the report in accordance with ABBR Report Code, Appendix B, ER 18-2-1, Civil Works Information System; e.g., NAD, ORD, SWD, etc.

Location:

Item # 3# STATE: Enter two (2) letter principal state abbreviation in accordance with FIPS PUB 6-1.

Item # 4# COUNTY: Enter three (3) digit county identification in accordance with FIPS PUB 6-1.

Item # 5# CONG DIST: Enter one (1) or two (2) digit number for congressional districts in which dam is located.

Item # 6#, #7#, and #8# (Use second location for structures situated in more than one state.)

Item # 9# DAM NAME: Enter official name of dam. Do not abbreviate unless the abbreviation is a part of the official name. For dams that do not have a name, create a name by combining the two (2) letter state abbreviation plus "NO NAME" plus a sequential number. Example: if two dams in the State of Alabama do not have names, they would be named as ALNONAME1 and ALNONAME2.

Item #10# & #11# LATITUDE AND LONGITUDE: Enter the latitude and longitude in degrees, minutes and tenths of a minute. All geographical location items pertain to dam as its maximum section.

Item #12# REPORT DATE: Enter the one (1) or two (2) digits for day, the first three (3) letters of the month and a two (2) digit year (e.g., 12 JAN74) in which the data has been revised, updated or otherwise changed.

LINE 1:

Item #13# POPULAR NAME OF DAM: If (other than the official name of the dam) in common use, enter the name in this space. Leave blank if not applicable.

Item #14# NAME OF IMPOUNDMENT: Enter official name of lake or reservoir. Leave blank if reservoir does not have a name.

LINE 2:

- Item #15# & #16# **REGION AND BASIN**: Enter two (2) digit numbers for Region and Basin in accordance with Appendix C, ER 18-2-1, Civil Works Information System.
- Item #17# **RIVER OR STREAM**: Enter official name of river or stream on which the dam is built. If stream is without name indicate as tributary to river named, e.g., TR-COLORADO. If off stream, enter name of river plus "OFF-STREAM".
- Item #18# **NEAREST DOWNSTREAM CITY-TOWN-VILLAGE**: Enter the nearest downstream city-town-village of such size which can be located on a general map.
- Item #19# **DISTANCE FROM DAM**: Enter distance from dam to nearest downstream city-town-village to the nearest mile.
- Item #20# **POPULATION**: Enter population of city-town-village given in Item #18#.

LINE 3:

Item #21# **TYPE OF DAM**: Enter two (2) letter codes, in any order, to describe type of dam.

EARTH	RF	BUTTRESS	CB	OTHER	OT
ROCKILL	LR	ARCH	VA	(Describe "other" in remarks)	
GRAVITY	PG	MULTI-ARCH	MV		

Item #22# **YEAR COMPLETED**: Enter year when the main dam structure was completed and ready for use. If only approximate year can be determined, note this in remarks.

Item #23# **PURPOSES**: Enter one (1) letter codes that describe the purposes for which the reservoir is used. The order entered should indicate the relative decreasing importance of the project purposes.

IRRIGATION	- I	WATER SUPPLY	- S	DEBRIS CONTROL	- D
HYDROELECTRIC	- H	RECREATION	- R	OTHER	- O
FLOOD CONTROL	- C	STOCK OR SMALL		(Describe "other" in remarks)	
NAVIGATION	- N	FARM POND	- P		

Item #24# **STRUCTURAL HEIGHT**: Enter, to the nearest foot, the structural height of the dam which is defined as: the overall vertical distance from the lowest point of foundation surface to the top of the dam.

Item #25# **HYDRAULIC HEIGHT**: Enter, to the nearest foot, the hydraulic height of the dam which is defined as: the effective height of the dam with respect to the maximum storage capacity, measured from the natural bed of the stream or watercourse at the downstream toe of the barrier, or if it is not across a stream or watercourse, the height from the lowest elevation of the outside limit of the barrier to the maximum storage elevation.

Impounding Capabilities:

Item #26# **MAXIMUM**: Enter the acre feet for maximum storage which is defined as: the total storage space in a reservoir below the maximum attainable water surface elevation, including any surcharge storage.

Item #27# **NORMAL**: Enter the acre feet for normal storage which is defined as: the total storage space in a reservoir below the normal retention level, including dead and inactive storage and excluding any flood control or surcharge storage.

Item #27A# **CORPS OF ENGINEERS DISTRICT**: Enter the three character Corps of Engineers ABBR report code in which the dam is geographically located, in accordance with Appendix B, ER 19-2-1, Civil Works Information System, e.g., NAN, ORH, SWF, etc.

Item #27B# **OWNERSHIP**: Enter N, for Non-Federal; G, for Federal Gov't. Agencies other than the Corps of Engineers; C for Corps of Engineers.

Item #27C# **FEDERALLY REGULATED**: Enter N for No; Enter Y for Yes.

Item #27D# **PRIVATE DAMS ON FEDERAL LAND**: Enter N for No; Enter Y for Yes.

Item #27E# **ASSISTANCE BY SOIL CONSERVATION SERVICE**: Enter N for None; T for Technical Assistance; F for Financial Assistance; B for Both Technical and Financial Assistance.

Item #27F# **VERIFICATION**: Date the data was verified as being complete and correct. Enter date as described in Item #12#

LINE 4:

Item #28# **REMARKS**: Preface remarks with the item number to which it pertains, e.g., 22-ORIGINALLY CONSTRUCTED IN 1928. 23-SETTLING BASIN. Only one remark line should be used for PART I remarks.

EXHIBIT 2



**PART II:**

Item 1 **IDENTITY:** Enter Identity per **GENERAL INSTRUCTIONS** on PART I.

**LINE 5:**

Item 129 **D/S HAZ:** Enter the digit that most closely represents the hazard potential that could occur to the downstream (D/S) area resulting from failure or mis-operation of the dam or facilities.

**HAZARD POTENTIAL**

<b>CATEGORY</b>	<b>LOSS OF LIFE (Extent of Development)</b>	<b>ECONOMIC LOSS (Extent of Development)</b>
3 = Low	None expected (No permanent structures for human habitation)	Minimal (Undeveloped to occasional structures or agriculture)
2 = Significant	Few (No urban developments and no more than a small number of inhabitable structures)	Appreciable (Notable agriculture, industry or structures)
1 = High	More than few	Excessive (Extensive community, industry or agriculture)

Item 130 **CREST LENGTH:** Enter, to the nearest foot, the crest length of the dam which is defined as; the total horizontal distance measured along the axis at the elevation of the top of dam between abutments or ends of dam. Note that this includes spillway width, powerhouse sections, and navigation locks where they form a continuous part of the dam water retaining structure. Detached spillways, locks, and powerhouses shall not be included.

**Spillway:**

Item 131 **TYPE:** Enter the one letter code that applies.

CONTROLLED = C                      UNCONTROLLED = U                      NONE = N

Item 132 **WIDTH:** Enter to the nearest foot, the width of the spillway available for discharge when the reservoir is at its maximum designed water surface elevation.

Item 133 **MAXIMUM DISCHARGE:** Enter the number of cubic feet per second which the spillway is capable of discharging when the reservoir is at its maximum designed water surface elevation.

**Volume of Dam:**

Item 134 **VOLUME OF DAM:** Enter the total number of cubic yards occupied by the materials used in the dam structure. If volume of separate materials is known, enter in remarks. Include portions of powerhouses, locks and spillways only if integral with the dam and required for structural stability.

**Power Capacity:**

Item 135 **INSTALLED:** Enter installed capacity to one tenth (1/10) Megawatt as of the report date.

Item 136 **PROPOSED:** Enter the future additional capacity proposed to one tenth (1/10) Megawatt.

Navigation Locks:

Item 137] **NUMBER:** Enter the number of existing navigation locks for the project.

Item 138] **LENGTH:** Enter to the nearest foot the length of the navigation lock.

Item 139] **WIDTH:** Enter to the nearest foot the width of the navigation lock.

Item 140] thru 145] Enter the lengths and widths of additional locks.

LINE 6:

Item 146] **OWNER:** Enter name of owner. Abbreviate as necessary.

Item 147] **ENGINEERING BY:** Enter name of organization that engineered the main dam structure. Abbreviate as required.

Item 148] **CONSTRUCTION BY:** Enter name of construction agency responsible for construction of main structure. Abbreviate as required.

LINE 7:

Regulatory Agency:

Item 149] **DESIGN:** Enter the name of the organization other than the owner having regulatory or approval authority over the design of the dam. If no organization other than the owner has regulatory or approval authority over the design of the dam indicate NONE.

Item 150] **CONSTRUCTION:** Enter the name of the organization other than the owner having regulatory authority or inspection responsibilities over the construction of the dam. If no organization other than the owner has regulatory authority or inspection responsibilities over the construction of the dam indicate NONE.

Item 151] **OPERATION:** Enter the name of the organization other than the owner having regulatory authority, operational control, or surveillance responsibilities over the operation of the dam. If no organization other than the owner has regulatory authority, operational control or surveillance responsibilities over the operation of the dam indicate NONE.

Item 152] **MAINTENANCE:** Enter the name of the organization other than the owner having regulatory authority or inspection or surveillance responsibilities over the maintenance of the dam. If no organization other than the owner has regulatory authority or inspection or surveillance responsibilities over the maintenance of the dam indicate NONE.

LINE 8:

Inspection:

Item 153] **BY:** Enter the name of the organization that performed the last safety inspection. Abbreviate as required. If no inspection has been performed enter NONE.

Item 154] **DATE:** Enter the one (1) or two (2) digits for day, the first three (3) letters of the month and a two (2) digit year when the inspection was performed. If not applicable, leave blank.

Item 155] **AUTHORITY FOR INSPECTION:** Enter the legislative or regulatory authority for performing the inspection indicated in item 53, e.g., P.L. 92-367; Div 3, Water Code, State of Calif; F.R 1110-2-100; etc.

LINE 9:

Item 156] **REMARKS:** Preface remarks with the item number to which it pertains. e.g., 34.2, 500,000 c.y. conc. 475,000 c.y. earthfill. Only one Remarks line should be used for PART II remarks.

EXHIBIT 2

APPENDIX C TO §222.6—HYDROLOGIC AND HYDRAULIC ASSESSMENT OF DAMS

1. Phase I inspections are not intended to provide detailed hydrologic and hydraulic analyses of dam and reservoir capabilities. However, when such analyses are available, they should be evaluated for reliability and completeness. If a project's ability to pass the appropriate flood (see Table 3, page D-12 of Recommended Guidelines) can be determined from available information of a brief study, such an assessment should be made. It should be noted that hydrologic and hydraulic analyses connected with the Phase I inspections should be based on approximate methods or systematized computer programs that take minimal effort. The Hydrologic

Engineering Center (HEC) has developed a special computer program for hydrologic and hydraulic analyses to be used with the Phase I inspection program. Other Field Operating Agencies have developed similar computer programs or generalized procedures which are acceptable for use. All such efforts should be completed with minimum resources.

2. A finding that a dam will not safely pass the flood indicated in the Recommended Guidelines does not necessarily indicate that the dam should be classified as unsafe. The degree of inadequacy of the spillway to pass the appropriate flood and the probable adverse impacts of dam failure because of overtopping must be considered in making such classification. The following criteria have