

APPENDIX A

FORMAT FOR ELECTRONIC SUBMITTAL OF DOSE DATA

Introduction

This appendix outlines a means by which licensees may satisfy the requirement to record the exposure history of each individual, set forth in 10 CFR 20.2104, "Determination of Prior Occupational Dose," and the annual reporting requirements of 10 CFR 20.2206, "Reports of Individual Monitoring." Where practicable, for satisfying the 10 CFR 20.2206 annual reporting requirement, the U.S. Nuclear Regulatory Commission (NRC) prefers to have licensees submit an electronic file via the Radiation Exposure Information and Reporting System (REIRS) using the secure web link available at <http://www.reirs.com>. Regardless of submittal method, licensees who have their exposure records in an electronic format are encouraged to submit electronic files. This is especially important for those licensees who have a large number of monitored individuals, because manual data entry is inefficient and can introduce an additional source of error.

Media Requirements

If the secure website submittal process is not used, other data submission formats may also be acceptable. Upon request, the NRC REIRS project manager will provide additional guidance to licensees in order for them to submit records on electronic media.

Transmittal Letters

Licensees should submit a transmittal letter containing information that will minimize processing time and help resolve possible discrepancies. Each letter should contain the following information (as a minimum):

- File name descriptive name of the file(s)
- Date created date each file was created
- Operating system operating system and version used to generate the data file
- Contact name and telephone number of the cognizant point of contact
- Other instructions comments or explanation regarding the data format, or other important information regarding the data file
- Signature and date dated signature of the licensee's authorized representative responsible for the data
- Other information Licensees are encouraged to include additional information, such as a change in operational status, radiation protection, or monitoring practices that may affect occupational radiation exposure and may be useful to the NRC in evaluating or assessing the annual submittal.

Expected Data

Each licensee is expected to submit at least one NRC Form 5 for each monitored individual at the given facility for each monitoring year. Licensees may also submit an NRC Form 5 for planned special exposures for individuals, if planned special exposures were authorized. Licensees should include the primary license number on each submitted NRC Form 5 to ensure that the records are assigned to the proper facility.

File Structure

The file structure consists of a header record, which provides information about the source of the data file, followed by NRC Form 5 dose records and supporting NRC Form 5 intake records. Where applicable, the file may also include one or more NRC Form 5 comment records to explain special exposure calculations or exposures in excess of regulatory limits. Each record contains only American Standard Code for Information Interchange or Extended Binary Coded Decimal Interchange Code printable characters and is terminated with a carriage return and a line feed. All empty space in a field is padded with spaces.

Header Record

The header record occurs only once at the top of each file to identify the source of the data.

Field	Width	Start Col.	End Col.	Description
Primary_License	13	1	13	Primary NRC license number
Version	10	15	24	Version of Regulatory Guide 8.7 in effect at the time of this submittal, formatted as "RG8.7Rev4"
Preparation_Date	8	26	33	Date the record was written to the data file, formatted as "YYYYMMDD"
Licensee_Name	72	35	106	Name of NRC licensee
Contact	72	108	179	Name of person to contact for further information about this data file
Phone_Number	14	181	194	Contact's phone number
Other_License_1	13	196	208	Other related NRC license number
Other_License_2	13	210	222	Other related NRC license number
Other_License_3	13	224	236	Other related NRC license number
Other_License_4	13	238	250	Other related NRC license number
Other_License_5	13	252	264	Other related NRC license number
Other_License_6	13	266	278	Other related NRC license number
Other_License_7	13	280	292	Other related NRC license number
Other_License_8	13	294	306	Other related NRC license number
Other_License_9	13	308	320	Other related NRC license number
Other_License_10	13	322	334	Other related NRC license number

NRC Form 5 Dose Record

The data file contains one dose record for each NRC Form 5 being reported. Each dose record may be followed by zero or more NRC Form 5 intake records.

Field	Width	Start Col.	End Col.	Description
Employee_ID	12	1	12	SSN, PPN, CSI, WPN, PAD, or OTH (IDs should have no punctuation.)
ID_Type	3	14	16	“SSN,” “PPN,” “CSI,” “WPN,” “PAD,” or “OTH”
Primary_License	13	18	30	Primary NRC license number
Preparation_Date	8	32	39	Date the record was written to the data file, formatted as “YYYYMMDD”
Record_Type	1	41	41	“D” = DOSE
First_Name	25	43	67	Employee’s full first name (no nicknames)
Middle_Initial	1	69	69	Employee’s middle initial
Last_Name	25	71	95	Employee’s last name (Titles such as “Jr” should be separated from the last name by a space, without any punctuation.)
Sex	1	97	97	Employee’s sex “M” = Male and “F” = Female
Birth_Date	8	99	106	Employee’s date of birth, formatted as “YYYYMMDD”
Monitoring_Start	8	108	115	Date monitoring began, formatted as “YYYYMMDD” (This typically is January 1 of the monitoring year for everyone except new hires.)
Monitoring_End	8	117	124	Date monitoring ended, formatted as “YYYYMMDD” (This typically is December 31 of the monitoring year for everyone except terminations.)
Report_Type	1	126	126	“R” = Record, or “E” = Estimate
Exposure_Type	1	128	128	“R” = Routine, or “P” = PSE
EDEX	8	130	137	Effective dose equivalent from external sources for the entire monitoring period in rem, formatted as “999.999”
DDE	8	139	146	Deep dose equivalent for the entire monitoring period in rem, formatted as “999.999”
LDE	8	148	155	Eye dose equivalent to the lens of the eye in rem, formatted as “999.999”
SDE_WB	8	157	164	Shallow dose equivalent, whole body in rem, formatted as “999.999”
SDE_ME	8	166	173	Shallow dose equivalent, max extremity in rem, formatted as “999.999”
CEDE	8	175	182	Committed effective dose equivalent in rem, formatted as “999.999”
CDE	8	184	191	Committed dose equivalent in rem, formatted as “999.999”
TEDE	8	193	200	Total effective dose equivalent in rem, formatted as “999.999.” The sum of EDEX and CEDE.
TODE	8	202	209	Total organ dose equivalent, maximally exposed organ in rem, formatted as “999.999.” The sum of DDE and CDE.

Form 5 Intake Record

The data file should include an intake record for each intake on the NRC Form 5 being reported.

Field	Width	Start Col.	End Col.	Description
Employee ID	12	1	12	SSN, PPN, CSI, WPN, PAD, or OTH (IDs should have no punctuation.)
ID_Type	3	14	16	“SSN,” “PPN,” “CSI,” “WPN,” “PAD,” or “OTH”
Primary_License	13	18	30	Primary NRC license number
Preparation_Date	8	32	39	This is the date from the parent NRC Form 5 Dose Record , formatted as “YYYYMMDD”
Record_Type	1	41	41	“I” = Intake
Radionuclide	9	43	51	Radionuclide abbreviation with the hyphen (e.g., U-234)
Class	1	53	53	Enter the pulmonary clearance class designator for inhalation mode. “D,” “Y,” “W,” “V,” “F,” “M,” “S,” or “O” for Other. If the intake mode is not inhalation, enter the abbreviation for the intake mode here, as well as in the Mode column.
Mode	1	55	55	“H” = Inhalation, “B” = Absorption, “J” = Injection, or “G” = Ingestion
Intake	10	57	66	The amount of μCi for the radionuclide (This can be expressed in scientific notation using the format “+9.999E+99” or as a decimal number of fewer than 9 digits.)

Form 5 Comment Record

The data file only includes this record type when comments are necessary to explain special exposure calculations or overexposures.

Field	Width	Start Col.	End Col.	Description
Employee_ID	12	1	12	SSN, PPN, CSI, WPN, PAD, or OTH (IDs should have no punctuation.)
ID_Type	3	14	16	“SSN,” “PPN,” “CSI,” “WPN,” “PAD,” or “OTH”
Primary_License	13	18	30	Primary NRC license number
Preparation_Date	8	32	39	This is the date from the parent NRC Form 5 Dose Record , formatted as “YYYYMMDD”
Record_Type	1	41	41	“C” = Comment
Comment	240	43	282	Explanatory comment (when needed)