

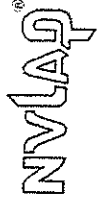
SUPPLEMENT TO
MARCH 25, 2016 RESPONSE
ATTACHMENT 4

Account Name: E & R Energy
 Account Number: 6519
 Published Date: 8/27/2015

Wearer ID	Process Number	Wearer ID	DOB	Gender	Badge Type	Area Monitored	Wear Period	Deep	Eye	Shallow	Neutron	Notes	Deep	Eye	Shallow	Year to Date	Lifetli	
'788	226183	ER 01			TLD	WB-CH	4/15/2015 - 7/14/2015	*	*	*	*		*	*	*	*	*	*
'789	226183	ER 02			TLD	WB-CH	4/15/2015 - 7/14/2015	*	*	*	*		*	*	*	*	*	*
'790	226183	ER 03			TLD	WB-CH	4/15/2015 - 7/14/2015	*	*	*	*		*	*	*	*	*	*
'791	226183	ER 04			TLD	WB-CH	4/15/2015 - 7/14/2015	*	*	*	*		*	*	*	*	*	*

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 TN: Cory Hoskins
 Crestview Dr.
 EST LIBERTY, KY 41472



Accredited by the "National Institute of Standards and Technology through NVLAP for the specific scope of accreditation under lab code 100555-0"

Sierra Radiation Dosimetry Service
 7501 N FM 620
 STE 155-347
 AUSTIN, TX 78726



Account Number
6519

Account Name
E & R Energy

Published Date
8/27/2015

Column Definitions

Serial Number	Unique individual wearer numbers assigned within an account. All exposure records are kept by wearer number
Wearer Name	Specific reference group in which the badges were processed.
Identification Number	Indicates individual's identification type and identification number.
Sex	Individual's birth date.
Age	M=Male; F=Female
Region	Type of badge used for determination of dose
Part	General region of the body to be monitored if dosimeter is assigned to personnel. This column also reflects non-personal use of dosimeter
Notes	Specific body part to be monitored if dosimeter is assigned to personnel. This field is optional and is provided to help differentiate between multiple badges worn on the same body region
	Length of assigned monitoring period

First day of the assigned monitoring period for the dosimeter

Last day of the assigned monitoring period for the dosimeter evaluated. If not designated by customer, last day will be last calendar date of the monitoring period.

Deep Dose Equivalent which applies to external whole body exposure and is the dose equivalent at a tissue depth of 1 centimeter (1000 mg/cm²). Neutron dose is included if present.

Eye Dose Equivalent which applies to the external exposure to the lens of the eye and is the dose equivalent at a tissue depth of 0.3 centimeters (300 mg/cm²). It includes dose in millirem for beta particles and photons. Neutron dose is included if present.

Shallow Dose Equivalent which applies to the external exposure of the skin or an extremity and is the dose equivalent at a tissue depth of 0.007 centimeters (7 mg/cm²) averaged over an area of 1 square centimeter. It includes dose in millirem for beta particles and photons. Extremity doses are reported in this column based on 662 keV photons unless other energy or radiation source information is available. Neutron dose is included if present.

Neutron dose stated is part of reported deep, eye and shallow in current exposure and is included in Current Deep, Current Eye, and Current Neutron columns.

Non-personnel neutron badges are calibrated for response of dosimeter on a phantom.

Letters shown in this column indicated an unusual occurrence which may limit or preclude an exposure evaluation. Continued or frequent entries in this column require further investigation and elimination of cause if possible. See Explanation of Code Key.

Deep: Cumulative year-to-date total of Current Deep for all non-extremity

Eye: Cumulative year-to-date total of Current Eye for all whole body and eye dosimeters reported in process year.

Shallow: Cumulative year-to-date total of Current Eye for all non-extremity dosimeters reported in process year.

Cumulative lifetime total of Current Deep/Shallow for all dosimeters processed plus previous history and adjustments.

MINIMUM EXPOSURE REPORTED: All dosimeters have a minimum threshold below which an actual exposure cannot be measured with statistical accuracy.

ALL EXPOSURES BELOW THIS MINIMUM WILL BE REPORTED AS AN ASTERISK (*) IN Current Deep, Eye, Shallow, and Neutron. These minimal exposures will not be carried forward in the cumulative data. Refer to specification sheet for minimum reportable doses.

DOSE EQUIVALENT: The product of the absorbed dose in tissue, quality factor, and all other necessary modifying factors at the location of interest.

EXTERNAL DOSE: That portion of the dose equivalent received from radiation sources outside the body.

OCCUPATIONAL DOSE: Dose received by an individual in a restricted area or in the course of employment in which the individual's assigned duties involve exposure to radiation and to radioactive material from licensed and unlicensed sources of radiation whether in the possession of the licensee or other person. Occupational dose does not include dose received from background radiation, such as a patient from medical practices, from voluntary participation in medical research programs, or as a member of the general public.

EXTREMITY: Hand, elbow, arm below the elbow, foot, knee or leg below the knee.

WHOLE BODY: Head, trunk, arms above the elbow, legs above the knee.

TECHNICAL DATA: The processing facility performs calibrations of its dosimetry systems that are traceable to NIST and is accredited by the National Institute of Standards and Technology through NVLAP.

RADIATION TEST SOURCES

The processing facility has demonstrated satisfactory performance in accordance with the most recent version of ANSI N13.11 "Criteria for Testing Personnel Dosimetry Performance." DOE/EH-0027; "DOE" standard for the Performance Testing of Personnel Dosimetry System

MONITORED REGION

WB & EW = Whole Body
NPU = Non Personnel Use
EYE = Lens of Eye
EQ = Equipment
URE = Upper Right Extremity
ARE = Area
ULE = Upper Left Extremity
UNK = Unknown
LRE = Lower Right Extremity
LLE = Lower Left Extremity

MONITORED BODY PART

Blank = Not Identified
TR = Torso
HD = Head
WR = Whist
CU = Collar
FN = Finger
CH = Chest

The annual occupational whole body dose limit (OBE) is 5000 millirem. The annual eye dose limit (EDE) is 15000 millirem. The annual shallow dose limit (SDE) is 50000 millirem. For information on the dose limits and definitions of terms used in this report, the client is referred to Part 20 of Title 10 of the Code of Federal Regulations (10CFR20). Limits for members of the public, minors and declare pregnant workers are different than those listed above.

This report must not be used to claim product endorsement by NVLAP or any agency of the U.S. Government.

Sierra Dosimetry contracts Mirion Technologies to process its client's badges. Mirion is accredited by the National Institute of Standards and Technology (NIST) National Voluntary Laboratory Accreditation Program (NVLAP). NVLAP Accreditation shall not be used by Mirion/SRDS or its clients as an implication of NIST endorsement of a specific product or service. SRDS/Mirion's technical staff should be contacted for questions concerning dosimetry results. Report may not be copied, except in full, without the written consent of Mirion and Sierra Dosimetry.

Mirion Technologies may be reached at 2652 McGaw Ave, Irvine, CA 92614. 800-251-3331

BES
Cory Hoskins
32 Crestview Dr.
WEST LIBERTY, KY 41472



Occupational Radiation Exposure Report

Account Name: E & R Energy
 Account Number: 6519
 Published Date: 2/8/2016

IERRA ID	Process Number	Wearer	ID	DOB	Gender	Badge Type	Area Monitored	Wear Period	Current (mrem)			Year to Date		Lifetih	
									Deep	Eye	Shallow	Neutron	Notes		Deep
792	228459	Control				TLD	Control	10/15/2015 - 1/14/2016	*	*	*	*	*	*	*
788	228459	ER01				TLD	WB-CH	10/15/2015 - 1/14/2016	*	*	*	*	*	*	*
789	228459	ER02				TLD	WB-CH	10/15/2015 - 1/14/2016	*	*	*	*	*	*	*
790	228459	ER03				TLD	WB-CH	10/15/2015 - 1/14/2016	*	*	*	*	*	*	*
791	228459	ER04				TLD	WB-CH	10/15/2015 - 1/14/2016	*	*	*	*	*	*	*

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 TN: Cory Hoskins
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Sierra Radiation Dosimetry Service
 7301 N FM 620
 STE 155-347
 AUSTIN, TX 78726

SIERRA RADIATION Occupational Dose Report

Account Name
E & R Energy

Account Number
6519

Published Date
2/8/2016

Minimum Definitions

Serial ID - Unique individual wearer numbers assigned within an account. All exposure records are kept by wearer number.

Dose Number - Specific reference group in which the badges were processed.

Wearer Name - Wearer's Full Name

Identification Number - Indicates individual's identification type and identification number, individual's birth date.

Sex - M=Male; F=Female

Badge Type - Type of badge used for determination of dose

General Region - General region of the body to be monitored if dosimeter is assigned to personnel. This column also reflects non-personal use of a dosimeter

Part - Specific body part to be monitored if dosimeter is assigned to personnel. This field is optional and is provided to help differentiate between multiple badges worn on the same body region

Location - Length of assigned monitoring period

Notes

Important - Control Badge
Control badge should be kept in a low ground location at your facility, never in room where your source of radiation is used. Also, as the control badge is used in calculation of dose, it should never be worn re-assigned.

MINIMUM EXPOSURE REPORTED: All dosimeters have a minimum threshold below which an actual exposure cannot be measured with statistical accuracy. ALL EXPOSURES BELOW THIS MINIMUM WILL BE REPORTED AS AN ASTERISK (*) IN Current Deep, Eye, Shallow, and Neutron. These minimal exposures will not be carried forward in the cumulative data. Refer to specification sheet for minimum reportable doses.

DOSE EQUIVALENT: The product of the absorbed dose in tissue, quality factor, and all other necessary modifying factors at the location of interest.

EXTERNAL DOSE: That portion of the dose equivalent received from radiation sources outside the body.

OCCUPATIONAL DOSE: Dose received by an individual in a restricted area or in the course of employment in which the individual's assigned duties involve exposure to radiation and to radioactive material from licensed and unlicensed sources of radiation whether in the possession of the licensee or other person. Occupational dose does not include dose received from background radiation, such as a patient from medical practices, from voluntary participation in medical research programs, or as a member of the general public.

EXTREMITY: Hand, elbow, arm below the elbow, foot, knee or leg below the knee.

WHOLE BODY: Head, trunk, arms above the elbow, legs above the knee.

TECHNICAL DATA: The processing facility performs calibrations of its dosimetry systems that are traceable to NIST and is accredited by the National Institute of Standards and Technology through NVLAP.

RADIATION TEST SOURCES
The processing facility has demonstrated satisfactory performance in accordance with the most recent version of ANSI N13.11 "Criteria for Testing Personnel Dosimetry Performance," DOE/EH-0027 "DOE" standard for the Performance Testing of Personnel Dosimetry System

BFS
Cory Hoskins
32 Crestview Dr.
WEST LIBERTY, KY 41472

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Last day of the assigned monitoring period for the dosimeter evaluated. If not designated by customer, last day will be last calendar date of the monitoring period

Deep Dose Equivalent which applies to external whole body exposure and is the dose equivalent at a tissue depth of 1 centimeter (1000 mg/cm²). Neutron dose is included if present.

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Shallow Dose Equivalent which applies to the external exposure of the skin or an extremity and is the dose equivalent at a tissue depth of 0.007 centimeters (7 mg/cm²) averaged over an area of 1 square centimeter. It includes dose in millirem for beta particles and photons. Extremity doses are reported in this column based on 662 keV photons unless other energy or radiation source information is available. Neutron dose is included if present.

Neutron dose stated is part of reported deep, eye and shallow in current exposure and is included in Current Deep, Current Eye, and Current Neutron columns.

Non-personnel neutron badges are calibrated for response of dosimeter on a phantom.

Letters shown in this column indicated an unusual occurrence which may limit or preclude an exposure evaluation. Continued or frequent entries in this column require further investigation and elimination of cause if possible. See Explanation of Code Key.

Deep: Cumulative year-to-date total of Current Deep for all non-extremity

Eye: Cumulative year-to-date total of Current Eye for all whole body and eye dosimeters reported in process year.

Shallow: Cumulative year-to-date total of Current Eye for all non-extremity dosimeters reported in process year.

Cumulative lifetime total of Current Deep/Shallow for all dosimeters processed plus previous history and adjustments.

MONITORED REGION

WB & EW = Whole Body
NPU = Non Personnel Use
EQ = Equipment
LE = Lens of Eye
URE = Upper Right Extremity
ARE = Area
ULE = Upper Left Extremity
LUMK = Unknown
LRE = Lower Right Extremity
LLE = Lower Left Extremity
NSE = Non Specific Extremity

MONITORED BODY PART

Blank = Not identified
TR = Torso
HD = Head
WR = Wrist
CL = Collar
FN = Finger
CH = Chest

The annual occupational whole body dose limit (DOE) is 50000 millirem. The annual eye dose limit (LE) is 15000 millirem. The annual shallow dose limit (SDE) is 50000 millirem. For information on the dose limits and definitions of terms used in this report, the client is referred to Part 20 of Title 10 of the Code of Federal Regulations (10CFR20). Limits for members of the public, minors and declared pregnant workers are different than those listed above.

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