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Health and Safety Plan for the Operable Unit 7-13/14 Integrated Probing Project

B. P. Miller

BECHTEL BWXT IDAHO, LLC

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ABSTRACT

This health and safety plan (HASP) establishes the procedures and requirements that will be used to eliminate or minimize health and safety hazards to persons conducting Operable Unit (OU) **7-13/14** integrated probing project activities in the Subsurface Disposal Area (SDA) of the Radioactive Waste Management Complex (RWMC), as required by the Occupational Safety and Health Administration Standard, "Hazardous Waste Operations and Emergency Response" **(29 CFR 1910.120/1926.65).** It contains information about the hazards involved in performing the work as well as the specific actions and equipment that will be used to protect personnel while working at the task site.

The OU **7-13/14** integrated probing tasks are being conducted to gather data to support the OU **7-13/14** remedial **investigatiodfeasibility** study (RI/FS). Activities will involve installation and sampling of probes placed in transuranic (TRU) mixed waste. Specialized engineering, work procedures, and administrative controls have been developed to isolate sources of contamination from personnel performing intrusive activities into the buried waste at the SDA. Monitoring of the area and personnel who conduct probing in the SDA will be conducted for radiological and nonradiological contaminants. Specific action levels for both types of contaminants have been established.

In addition, emergency response planning and actions are described for various contingencies during the OU **7-13/14** integrated probing activities. Both project site and offsite emergency situations are discussed.

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ACRONYMS

ACGM	American Conference of Government Industrial Hygienists
AL	action level
ALARA	as low as reasonably achievable
ANSI	American National Standards Institute
anti-C	anti-contamination
APF	assigned protection factor
APR	air-purifying respirators
ARDC	Administrative Record and Document Control
BBWI	Bechtel BWXT Idaho, LLC
bls	below land surface
CAM	constant air monitor
CAS	chemical abstract service
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFA	Central Facilities Area
CFM	cubic feet per minute
CFR	***Code of Federal Regulations***
CNS	central nervous system
COCA	Consent Order and Compliance Agreement
COPC	contaminants of potential concern
CP	command post
CRC	contamination reduction corridor
CRZ	contamination reduction zone

CTP	Cold Test Pit
CVS	cardiovascular system
D&D	decontamination and dismantlement
DAC	derived air concentration
dBA	decibel A-weighted
DC	document control
DEET	a colorless, oily, liquid, insect repellent
DOE	U.S. Department of Energy
DOE-ID	U.S. Department of Energy Idaho Operations Office
EC	emergency coordinator
ECC	Emergency Communications Center
EDF	engineering design file
EDTA	ethylenediaminetetracetic acid
PEL	permissible exposure limit
EM	electromagnetic
EO	Environmental Operations
EPA	U.S. Environmental Protection Agency
ER	environmental restoration
ERO	Emergency Response Organization
ERP	Environmental Restoration Program
ESH	Environmental, Safety, and Health Program
ESH&QA	environment, safety, health and quality assurance
EV	electron volts
EZ	exclusion zone
FFA/CO	Federal Facility Agreement and Compliance Order
FID	flame ionization detector

FPE	fire protection engineer
FR	Federal Register
FS	feasibility study
FSP	field sampling plan
FTL	field team leader
FUM	facilities, utilities, and maintenance
FY	fiscal year
GFCI	ground fault circuit interruptor
GI	gastrointestinal
GM	Geiger-Mueller
HASP	health and safety plan
HAZMAT	hazardous materials
HAZWOPER	Hazardous Waste Operations and Emergency Response
HEG	homogeneous exposure group
HEPA	highefficiency particulate air
HPGe	high-purity germanium
HSO	health and safety officer
i.d.	inside diameter
IARC	International Agency for Research on Cancer
ICS	Incident Command System
IDHW	Idaho Department of Health and Welfare
IDLH	immediately dangerous to life or health
IDW	investigation-derived waste
IE	ionization energy
IH	industrial hygienist
INEEL	Idaho National Engineering and Environmental Laboratory

INTEC	Idaho Nuclear Technology and Engineering Center
IRA	interim risk assessment
ISMS	Integrated Safety Management System
ITRP	independent technical review panel
JSA	job safety analysis
LEL	lower explosive limit
LLRW	low-level radioactive waste
LLW	low-level waste
LN2	liquid nitrogen
MAP	mixed activation product
MCP	management control procedure
MFP	mixed fission product
MSDS	Material Safety Data Sheet
NEPA	National Environmental Policy Act
NIOSH	National Institute of Occupational Safety & Health
NPL	National Priorities List
NPT	Non-Proliferation Treaty
NRR	noise reduction rating
NRTS	National Reactor Testing Station
OCVZ	organic concentration in the vadose zone
OMP	Occupational Medical Program
OSHA	Occupational Safety and Health Administration
OU	operating unit
PCB	polychlorinated biphenyl
PCM	personal contamination monitor
PEL	permissible exposure limit

PHA	preliminary hazards assessment
PID	photoionization detector
PM	project manager
POD	plan-of-the-day
PPE	personal protective equipment
PRD	program requirements document
QA/QC	quality assurance/quality control
QAPjP	Quality Assurance Project Plan
QPP	quality program plan
RadCon	radiological control
RBA	radiological buffer area
RCIMS	Radiological Control Information Management Systems
RCM	radiological control manual
RCRA	Resource Conservation and Recovery Act
RCT	radiological control technician
RD/RA	remedial design/remedial action
RE	radiological engineer
REM	roentgen equivalent man
RFP	Rocky Flats Plant
RI	remedial investigation
RI/FS	remedial **investigatiodfeasibility**study
RMA	Radioactive Material Area
ROD	Record of Decision
RSI	sonic drill rig vendor
RW	radiological worker
RWMC	Radioactive Waste Management Complex

RWMIS	Radioactive Waste Management Information System
RWP	radiological work permit
S&H	safety and health
SAIC	Science Applications International Corporation
SAP	sample analysis plan
SAR	safety analysis report
SCBA	self-contained breathing apparatus
SDA	Subsurface Disposal Area
SIA	staged interim action
SP	safety professional
SRPA	Snake Rive Plain Aquifer
SS	shift supervisor
STEL	short-term exposure limits
SWP	safe work permit
SZ	support zone
TAN	Test Area North
TLD	thermoluminescent dosimeter
TLV	threshold-limit value
TPR	technical procedure requirement
TRA	Test Reactor Area
TRAIN	Training Records and Information Network
TRU	transuranic
TSA	Transuranic Storage Area
TSR	technical safety requirements
TWA	time-weighted average
TWP	Transuranic Waste Program

USCG	United States Coast Guard
USQ	unreviewed safety question
VD	vapor density (air = 1)
VOC	volatile organic compound
VPP	Voluntary Protection Program
WAC	waste acceptance criteria
WAG	waste area group
WBGT	wet bulb globe test
WCC	Warning Communications Center
WERF	Waste Experimental Reduction Facility