

MGDS License Application Annotated Outline

Section 10.1 Quality Assurance Program for Various Activities Associated with the Geologic Repository

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 - 10.1.1.1 Applicable Provisions of 10 CFR 50, Appendix B (as specified in the QARD) That Have Been Applied to Activities Affecting Quality During Site Characterization of the Geologic Repository (See Table 10.1.1.1-1)**
 - 10.1.1.1.1 QA Program for the Yucca Mountain Site Characterization Office (YMSCO)**
 - 10.1.1.1.1.1 QA Program for Management and Operating Contractor (M&O)**
 - 10.1.1.1.1.2 QA Program for Reynolds Electrical & Engineering Company (REECO)**
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 - 10.1.1.2 Provisions Sufficiently Detailed to Respond to NRC "Review Plan for High-Level Waste Repository QA Program Descriptions" (See Table 10.1.1.2-1)**
 - 10.1.1.3 Existing Data That Has Not Been Gathered Under 10 CFR 60, Subpart G and Requires Qualification for Use in Licensing (See Table 10.1.1.3-1)**
 - 10.1.2 QA Program for Design and Construction**
 - 10.1.2.1 Provisions of 10 CFR 50, Appendix B (as specified in the QARD) That Are Applicable to Design and Construction Activities and That Have Been Previously Detailed for the Site Characterization QA Program (Cross Reference to 10.1.1)**
 - 10.1.2.2 Provisions of 10 CFR 50, Appendix B (as specified in the QARD) That Are Applicable to Design and Construction Activities and That Have Not Previously Been Applied for the Site Characterization QA Program (With Sufficient Detail to Permit Evaluation by NRC of Compliance With 10 CFR 50, Appendix B)**
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 - 10.1.3.1 Particular QA Site Characterization Program (Cross Reference to 10.1.1)**
 - 10.1.3.2 Provisions of 10 CFR 50, Appendix B (as specified in the QARD) That Will Be Applied to the Performance Confirmation Program and That Have Not Been Previously Applied for the Site Characterization QA Program (In**

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REFERENCES

10 CFR 60, Disposal of High-Level Radioactive Wastes in Geologic Repositories

10 CFR 2, Rules of Practice for Domestic Licensing Proceedings and Issuance of Orders

NRC, Review Plan for High-Level Waste Repository Quality Assurance Program Descriptions

YMP/CM-0011, Site Characterization Program Baseline

DOE/RW-0199, Site Characterization Plan, Yucca Mountain Site, Nevada Research and Development Area, Nevada

DOE/RW-0333P, Quality Assurance Requirements and Description

SKELETON TEXT

YMP/94-05, Rev. 0

Date: 03/31/95

Table 10.1.1.1-1 Provisions of 10 CFR 50, Appendix B (as specified in the QARD) Applied to Activities Affecting Quality During Site Characterization of the Geologic Repository

Appendix B Criteria	Remarks Regarding Applicability	Remarks Regarding Non-Applicability
Organization		
QA Program		
Design Control		
P.D. Control		
I, P, D		
Document Control,		
etc.		

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Table 10.1.1.2-1 Details of QA Program Responsiveness to NRC Review Plan for High-Level Waste Repository Quality Program Descriptions

NRC Review Plan Item	Where Found in QARD

Table 10.1.1.3-1 Existing Data By Activity That Has Not Been Gathered Under 10 CFR 60, Subpart G and Which Requires Qualification for Use in Licensing

Data	Activity

Date: 03/31/95

Table 10.1.3.2-1 Provisions of 10 CFR 50, Appendix B (as specified in the QARD) Applied to Activities Affecting Quality During the Performance Confirmation Program of the Repository

Appendix B Criteria	Remarks Regarding Applicability	Remarks Regarding Non-Applicability
Organization		
QA Program		
Design Control		
etc.		

Table 10.1.4.2-1 Provisions of 10 CFR 50, Appendix B (as specified in the QARD) Applied to Activities Affecting Quality During the Operation, Permanent Closure, Decontamination, and Decommissioning Phases of the Geologic Repository

Appendix B Criteria	Remarks Regarding Applicability	Remarks Regarding Non-Applicability
Organization		
QA Program		
Design Control		
etc.		

Date: 03/31/95

MGDS LA Annotated Outline Form A: Information Need	
Information Need Number:	INN 10.1-1
Section Number and Title:	10.1 QUALITY ASSURANCE PROGRAM FOR VARIOUS ACTIVITIES ASSOCIATED WITH THE GEOLOGIC REPOSITORY
Lead Author/Support Author and Phone:	
Primary LA AO Table or Figure INN supports (if applicable):	N/A
Explicit description of the needed information:	Data and assessments collected without approved QA program.
Information will be used to support:	
The Information is needed by/for (date or event):	
Most likely source of the Information:	
Information Source Description:	
Does the supporting data need to be QA?	N/A

INTEGRATOR (PMO):	
Date information will be available:	
Deliverable providing information:	
If the data needed is QA, then the QA source document number is:	

I-10.1-1

MGDS License Application Annotated Outline

Section 10.2 Implementation of the Quality Assurance Program for Site Characterization

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Date: 03/31/95

10.2 IMPLEMENTATION OF THE QA PROGRAM FOR SITE CHARACTERIZATION**Skeleton Text Has Not Been Developed For This Section**

[A statement similar to the following should be made in a potential license application: This section describes how the completed and ongoing quality affecting activities comply with the QA program requirements for site characterization. The description is in sufficient detail to enable NRC staff to determine whether and how applicable requirements of 10 CFR 50, Appendix B (as specified in the QARD) are satisfied (see Table 10.2-1).]

[A statement similar to the following should also be made in a potential license application: This section demonstrates that completed and ongoing quality affecting activities comply with the QA program requirements for site characterization.]

REFERENCES

10 CFR 2, Rules of Practice for Domestic Licensing Proceedings and Issuance of Orders

10 CFR 60, Disposal of High-Level Radioactive Wastes in Geologic Repositories

NRC, Review Plan for High-Level Waste Repository Quality
Assurance Program Descriptions

YMP/CM-0011, Site Characterization Program Baseline

DOE/RW-0199, Site Characterization Plan, Yucca Mountain Site, Nevada Research and
Development Area, Nevada

Date: 03/31/95

Table 10.2-1 Implementation of 10 CFR 50, Appendix B (as specified in the QARD) Criteria During Site Characterization

Applicable 10 CFR 50, Appendix B Criteria	Discussion of How the Criteria Were Implemented or Are Being Implemented at the Time of License Application
I	Sufficiently detailed to allow for NRC staff evaluation to determine compliance
II	
III	
etc.	

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Chapter 11.0 Emergency Planning

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11.0 EMERGENCY PLANNING

[This chapter presents the emergency plan for the Mined Geologic Disposal System (MGDS) facility. It provides measures for planned, appropriate responsive action applicable to postulated accidents and emergency conditions. The regulatory basis for this section is contained in 10 CFR 60, *Disposal of High-Level Radiologic Wastes in Geologic Repositories*, Subpart I - *Emergency Planning Criteria*. This section has been formatted against criteria of Regulatory Guide 3.67, Standard Format and Content for Emergency Plans for Fuel Cycle and Materials Facilities. It will be reformatted, as necessary, to meet the specified criteria of Subpart I, when issued. The facility and organization described in this chapter are based on nuclear power plant experience. The titles, structure, duties, and physical arrangements do not necessarily reflect the actual situation to be established.]

REFERENCES

Regulatory Guide 3.67, Standard Format and Content for Emergency Plans for Fuel Cycle and Materials Facilities, NRC, 1992

NUREG-0654 FEMA REP-1 Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants

NUREG-0396 EPA 520/1-78-016 (Planning Basis for Development of State and Local Government Radiological Emergency Plans in Support of Light Water Nuclear Power Plants)

(NOTE: The following DOE Orders are not applicable to DOE facilities licensed by the NRC, but are referenced for information purposes.)

DOE Order 5000.3A, Occurrence Reporting and Processing of Operations Information

DOE Order 5500, Planning for Operations Emergencies

DOE Order 5500.2B, Emergency Notification, Reporting and Response

DOE Order 5500.3A, Emergency Planning and Preparedness

DOE Order 5500.6A, Readiness Assurance for Emergency Management

ACRONYMS AND ABBREVIATIONS

DOE	U.S. Department of Energy
EOC	Emergency Operations Center
km	Kilometer
MGDS	Mined Geologic Disposal System
NRC	Nuclear Regulatory Commission

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Section 11.1 Site Description

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- 11.1.2-1 U.S. decennial census report for the year 2000 for Las Vegas, Nevada.
- 11.1.2-2 The average population of Mercury, Nevada for the last 10 years (2000 census).
- 11.1.2-3 The population of Beatty, Nevada (2000 census).
- 11.1.2-4 The population of Amargosa Valley, Nevada (2000 census).
- 11.1.2-5 Map of the site in relation to Las Vegas, Beatty, Amargosa Valley, Mercury, and the state.
- 11.1.2-6 Map of the site in relation to Nye County, including Tonopah, and major highways and rail lines.
- 11.1.2-7 The population of Nye County, Nevada within a 40 km (25 mile) radius of the MGDS facility (based on the 2000 census).
- 11.1.2-8 The population of Tonopah, Nevada (2000 census).
- 11.1.2.1-1 Projection of the population growth within a 40 km (25 mile) radius of the MGDS facility in the 50-year time span from 2000 to 2050.
 - 11.1.2.1.1-1 The basis of the population estimate projections.
 - 11.1.2.1.2-1 The estimated annual transient population within a 40 km (25 mile) radius of the MGDS facility beginning in the year 2000 and projected for 50 years.
 - 11.1.2.1.2-2 The recreational uses of land and water within an 80 km (50 mile) radius of the MGDS facility.
 - 11.1.2.1.2-3 The numbers of schools, day care centers, hospitals, etc., within an 80 km (50 mile) radius of the MGDS facility.
- 11.1.2.2-1 Discussion of residential land use within an 80 km (50 mile) radius of the MGDS facility.
- 11.1.2.2-2 Discussion of industrial land uses within an 80 km (50 mile) radius of the MGDS site.
- 11.1.2.2-3 Discussion of agricultural land use within an 80 km (50 mile) radius of the MGDS facility.

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11.1.2.2-4 Discussion of water use within an 80 km (50 mile) radius of the MGDS facility.

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11.1 SITE DESCRIPTION

11.1.1 Description of Licensed Activity

The U.S. Department of Energy (DOE) is the owner of the MGDS facility. [INN 11.1.1-1] is the contractor to the DOE for the operation of the facility. The MGDS facility consists of a subterranean repository complex and surface receiving, processing, temporary storage, and support buildings which receive spent nuclear fuel and defense high-level waste. The facility has the capability to receive and store up to 70,000 metric tons of material.

11.1.2 Location

The MGDS facility is located in southern Nevada, approximately 160 km (100 miles) northwest of Las Vegas, which is the nearest large city. Las Vegas has a population of [INN 11.1.2-1]. Three communities are within 50 km (30 miles) of the facility. Mercury, a base camp type community for the Nevada Test Site, with an average population of about [INN 11.1.2-2], is 40 km (25 miles) to the southeast. Beatty, with a population of [INN 11.1.2-3], is the closest, 16 km (10 miles) to the west. Amargosa Valley, with a population of only [INN 11.1.2-4], is approximately 20 km (12 miles) south of the facility. The state map, shown in Figure 11.1.2-1 [INN 11.1.2-5], shows the relationship of the MGDS facility to these population centers within the state.,

Figure 11.1.2-2 [INN 11.1.2-6] shows the location of the facility within Nye County and the relationship of the facility to the nearest towns and cities. The topography in the facility area (within an 8 km (5 mile) radius of the repository) ranges in elevation from 1,450 meters (4,750 feet) above mean sea level at the top of Yucca Mountain (within which, at an elevation of 1,080 meters (3,550 feet) above sea level, the repository is located), to 1,100 meters (3,600 feet) above sea level at the surface facilities site in Midway Valley, 1.6 km (1 mile) east of the repository.

As shown by Figures 11.1.2-1 and 11.1.2-2, the facility is located away from densely populated metropolitan areas. Major highways and a rail line provide excellent transportation routes for the receipt of spent fuel and other high-level nuclear waste. [The site characterization process will determine whether the site meets regulatory prerequisites for hydrology, geology, seismology, and meteorology.]

Nye County has a population of about [INN 11.1.2-7] within a 40 km (25 mile) radius of the facility. The population concentration is highest in the county seat, Tonopah, 150 km (95 miles) northwest of the repository site. Tonopah's population is [INN 11.1.2-8].

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11.1.2.1 Demography

The population of Nye County is [INN 11.1.2-7]. Population growth within a 40 km (25 mile) radius of the facility site over the next 50 years is projected to be [INN 11.1.2.1-1].

11.1.2.1.1 Permanent Population

The distance from the MGDS facility site to the nearest permanent civilian (non-site) residence is approximately 16 km (10 miles) west of the site. Population estimates are based on projections made by [INN 11.1.2.1.1-1].

11.1.2.1.2 Transient Population

- a. Estimated annual population [INN 11.1.2.1.2-1],
- b. Recreational uses of land and water within 80 km (50 miles) of the site [INN 11.1.2.1.2-2],
- c. Schools, day care centers, hospitals, etc. [INN 11.1.2.1.2-3].

11.1.2.2 Land Use Census

- a. Residential [INN 11.1.2.2-1],
- b. Industrial [INN 11.1.2.2-2],
- c. Agricultural [INN 11.1.2.2-3],
- d. Water [INN 11.1.2.2-4].

11.1.3 Facility and Site Description

The MGDS facility is located on 21975.4 acres, as illustrated in Figure 9.1.1-1, Section 9.1. The facility complex consists of the surface facilities, the subsurface repository, the transportation network, and the repository access ramps. The facility is self-sufficient in support facilities and equipment.

REFERENCES

Regulatory Guide 3.67, Standard Format and Content for Emergency Plans for Fuel Cycle and Materials Facilities, NRC, 1992

NUREG-0654 FEMA REP-1 Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants

NUREG-0396 EPA 520/1-78-016 (Planning Basis for Development of State and Local Government Radiological Emergency Plans in Support of Light Water Nuclear Power Plants)

(NOTE: The following DOE Orders are not applicable to DOE facilities licensed by the NRC, but are referenced for information purposes.)

DOE Order 5000.3A, Occurrence Reporting and Processing of Operations Information

DOE Order 5500, Planning for Operations Emergencies

DOE Order 5500.2B, Emergency Notification, Reporting and Response

DOE Order 5500.3A, Emergency Planning and Preparedness

DOE Order 5500.6A, Readiness Assurance for Emergency Management

FIGURE CAPTIONS

Figure 11.1.2-1 Southern Nevada Map

A map of southern Nevada, showing the location of the MGDS facility.] [INN 11.1.2-5]

Figure 11.1.2-2 Local Site Map

A map of the MGDS facility site. [INN 11.1.2-6]

Date: 03/31/95

MGDS LA Annotated Outline Form A: Information Need	
Information Need Number:	INN 11.1.1-1
Section Number and Title:	11.1 SITE DESCRIPTION
Lead Author/Support Author and Phone:	Ken Ashe (702) 794-7665
Primary LA AO Table or Figure INN supports (if applicable):	
Explicit description of the needed information:	The name of the contractor to DOE for the operation of the MGDS facility.
Information will be used to support:	
The Information is needed by/for (date or event):	After DOE selection of the contractor
Most likely source of the Information:	
Information Source Description:	
Does the supporting data need to be QA?	

INTEGRATOR (PMO):	
Date information will be available:	
Deliverable providing information:	
If the data needed is QA, then the QA source document number is:	

Date: 03/31/95

MGDS LA Annotated Outline Form A: Information Need	
Information Need Number:	INN 11.1.2-1
Section Number and Title:	11.1 SITE DESCRIPTION
Lead Author/Support Author and Phone:	Ken Ashe (702) 794-7665
Primary LA AO Table or Figure INN supports (if applicable):	
Explicit description of the needed information:	U.S. decennial census report for the year 2000 for Las Vegas, Nevada.
Information will be used to support:	
The Information is needed by/for (date or event):	At the end of the century
Most likely source of the Information:	
Information Source Description:	
Does the supporting data need to be QA?	

INTEGRATOR (PMO):	
Date information will be available:	
Deliverable providing information:	
If the data needed is QA, then the QA source document number is:	

Date: 03/31/95

MGDS LA Annotated Outline Form A: Information Need	
Information Need Number:	INN 11.1.2-2
Section Number and Title:	11.1 SITE DESCRIPTION
Lead Author/Support Author and Phone:	Ken Ashe (702) 794-7665
Primary LA AO Table or Figure INN supports (if applicable):	
Explicit description of the needed information:	The average population of Mercury, Nevada for the last 10 years (2000 census).
Information will be used to support:	
The Information is needed by/for (date or event):	After release of 2000 census results
Most likely source of the Information:	
Information Source Description:	
Does the supporting data need to be QA?	

INTEGRATOR (PMO):	
Date information will be available:	
Deliverable providing information:	
If the data needed is QA, then the QA source document number is:	

Date: 03/31/95

MGDS LA Annotated Outline Form A: Information Need	
Information Need Number:	INN 11.1.2-3
Section Number and Title:	11.1 SITE DESCRIPTION
Lead Author/Support Author and Phone:	Ken Ashe (702) 794-7665
Primary LA AO Table or Figure INN supports (if applicable):	
Explicit description of the needed information:	The population of Beatty, Nevada (2000 census)
Information will be used to support:	
The Information is needed by/for (date or event):	After release of 2000 census results
Most likely source of the Information:	
Information Source Description:	
Does the supporting data need to be QA?	

INTEGRATOR (PMO):	
Date information will be available:	
Deliverable providing information:	
If the data needed is QA, then the QA source document number is:	

MGDS LA Annotated Outline Form A: Information Need	
Information Need Number:	INN 11.1.2-4
Section Number and Title:	11.1 SITE DESCRIPTION
Lead Author/Support Author and Phone:	Ken Ashe (702) 794-7665
Primary LA AO Table or Figure INN supports (if applicable):	
Explicit description of the needed information:	The population of Amargosa Valley, Nevada (2000 census)
Information will be used to support:	
The Information is needed by/for (date or event):	After release of 2000 census results
Most likely source of the Information:	
Information Source Description:	
Does the supporting data need to be QA?	

INTEGRATOR (PMO):	
Date information will be available:	
Deliverable providing information:	
If the data needed is QA, then the QA source document number is:	

Date: 03/31/95

MGDS LA Annotated Outline Form A: Information Need	
Information Need Number:	INN 11.1.2-5
Section Number and Title:	11.1 SITE DESCRIPTION
Lead Author/Support Author and Phone:	Ken Ashe (702) 794-7665
Primary LA AO Table or Figure INN supports (if applicable):	Figure 11.1.2-1
Explicit description of the needed information:	Map of site in relation to Las Vegas, Beatty, Armargosa Valley, Mercury, and the state
Information will be used to support:	
The Information is needed by/for (date or event):	TBD
Most likely source of the Information:	
Information Source Description:	None identified
Does the supporting data need to be QA?	

INTEGRATOR (PMO):	
Date information will be available:	
Deliverable providing information:	
If the data needed is QA, then the QA source document number is:	

Date: 03/31/95

MGDS LA Annotated Outline Form A: Information Need	
Information Need Number:	INN 11.1.2-6
Section Number and Title:	11.1 SITE DESCRIPTION
Lead Author/Support Author and Phone:	Ken Ashe (702) 794-7665
Primary LA AO Table or Figure INN supports (if applicable):	Figure 11.1.2-2
Explicit description of the needed information:	Map of site in relation to Nye County, including Tonopah, and major highways and rail lines
Information will be used to support:	
The Information is needed by/for (date or event):	TBD
Most likely source of the Information:	
Information Source Description:	None identified
Does the supporting data need to be QA?	

INTEGRATOR (PMO):	
Date information will be available:	
Deliverable providing information:	
If the data needed is QA, then the QA source document number is:	

Date: 03/31/95

MGDS LA Annotated Outline Form A: Information Need	
Information Need Number:	INN 11.1.2-7
Section Number and Title:	11.1 SITE DESCRIPTION
Lead Author/Support Author and Phone:	Ken Ashe (702) 794-7665
Primary LA AO Table or Figure INN supports (if applicable):	
Explicit description of the needed information:	The population of Nye County, Nevada within a 40 km (25 mile) radius of the MGDS facility (based on the 2000 census)
Information will be used to support:	
The Information is needed by/for (date or event):	After release of 2000 census results
Most likely source of the Information:	
Information Source Description:	
Does the supporting data need to be QA?	

INTEGRATOR (PMO):	
Date information will be available:	
Deliverable providing information:	
If the data needed is QA, then the QA source document number is:	

Date: 03/31/95

MGDS LA Annotated Outline Form A: Information Need	
Information Need Number:	INN 11.1.2-8
Section Number and Title:	11.1 SITE DESCRIPTION
Lead Author/Support Author and Phone:	Ken Ashe (702) 794-7665
Primary LA AO Table or Figure INN supports (if applicable):	
Explicit description of the needed information:	The population of Tonopah, Nevada (2000 census)
Information will be used to support:	
The Information is needed by/for (date or event):	After release of 2000 census results
Most likely source of the Information:	
Information Source Description:	
Does the supporting data need to be QA?	

INTEGRATOR (PMO):	
Date information will be available:	
Deliverable providing information:	
If the data needed is QA, then the QA source document number is:	

Date: 03/31/95

MGDS LA Annotated Outline Form A: Information Need	
Information Need Number:	INN 11.1.2.1-1
Section Number and Title:	11.1 SITE DESCRIPTION
Lead Author/Support Author and Phone:	Ken Ashe (702) 794-7665
Primary LA AO Table or Figure INN supports (if applicable):	
Explicit description of the needed information:	Projection of the population growth within a 40 km (25 mile) radius of the MGDS facility in the 50-year time span from 2000 to 2050.
Information will be used to support:	
The Information is needed by/for (date or event):	After release of 2000 census results
Most likely source of the Information:	
Information Source Description:	
Does the supporting data need to be QA?	

INTEGRATOR (PMO):	
Date information will be available:	
Deliverable providing information:	
If the data needed is QA, then the QA source document number is:	

Date: 03/31/95

MGDS LA Annotated Outline Form A: Information Need	
Information Need Number:	INN 11.1.2.1.1-1
Section Number and Title:	11.1 SITE DESCRIPTION
Lead Author/Support Author and Phone:	Ken Ashe (702) 794-7665
Primary LA AO Table or Figure INN supports (if applicable):	
Explicit description of the needed information:	The basis of the population estimate projections.
Information will be used to support:	
The Information is needed by/for (date or event):	After release of 2000 census results.
Most likely source of the Information:	
Information Source Description:	
Does the supporting data need to be QA?	

INTEGRATOR (PMO):	
Date information will be available:	
Deliverable providing information:	
If the data needed is QA, then the QA source document number is:	

Date: 03/31/95

MGDS LA Annotated Outline Form A: Information Need	
Information Need Number:	INN 11.1.2.1.2-1
Section Number and Title:	11.1 SITE DESCRIPTION
Lead Author/Support Author and Phone:	Ken Ashe (702) 794-7665
Primary LA AO Table or Figure INN supports (if applicable):	
Explicit description of the needed information:	The estimated annual transient population within a 40 km (25 mile) radius of the MGDS facility beginning in the year 2000 and projected for 50 years.
Information will be used to support:	
The Information is needed by/for (date or event):	After release of 2000 census results
Most likely source of the Information:	
Information Source Description:	
Does the supporting data need to be QA?	

INTEGRATOR (PMO):	
Date information will be available:	
Deliverable providing information:	
If the data needed is QA, then the QA source document number is:	

Date: 03/31/95

MGDS LA Annotated Outline Form A: Information Need	
Information Need Number:	INN 11.1.2.1.2-2
Section Number and Title:	11.1 SITE DESCRIPTION
Lead Author/Support Author and Phone:	Ken Ashe (702) 794-7665
Primary LA AO Table or Figure INN supports (if applicable):	
Explicit description of the needed information:	The recreational uses of land and water within an 80 km (50 mile) radius of the MGDS facility.
Information will be used to support:	
The Information is needed by/for (date or event):	After release of 2000 census results
Most likely source of the Information:	
Information Source Description:	
Does the supporting data need to be QA?	

INTEGRATOR (PMO):	
Date information will be available:	
Deliverable providing information:	
If the data needed is QA, then the QA source document number is:	

MGDS LA Annotated Outline Form A: Information Need	
Information Need Number:	INN 11.1.2.1.2-3
Section Number and Title:	11.1 SITE DESCRIPTION
Lead Author/Support Author and Phone:	Ken Ashe (702) 794-7665
Primary LA AO Table or Figure INN supports (if applicable):	
Explicit description of the needed information:	The numbers of schools, day care centers, hospitals, etc., within an 80 km (50 mile) radius of the MGDS facility.
Information will be used to support:	
The Information is needed by/for (date or event):	After release of 2000 census results.
Most likely source of the Information:	
Information Source Description:	
Does the supporting data need to be QA?	

INTEGRATOR (PMO):	
Date information will be available:	
Deliverable providing information:	
If the data needed is QA, then the QA source document number is:	

Date: 03/31/95

MGDS LA Annotated Outline Form A: Information Need	
Information Need Number:	INN 11.1.2.2-1
Section Number and Title:	11.1 SITE DESCRIPTION
Lead Author/Support Author and Phone:	Ken Ashe (702) 794-7665
Primary LA AO Table or Figure INN supports (if applicable):	
Explicit description of the needed information:	Discussion of residential land use within an 80 km (50 mile) radius of the MGDS facility.
Information will be used to support:	
The Information is needed by/for (date or event):	After release of 2000 census results.
Most likely source of the Information:	
Information Source Description:	
Does the supporting data need to be QA?	

INTEGRATOR (PMO):	
Date information will be available:	
Deliverable providing information:	
If the data needed is QA, then the QA source document number is:	

Date: 03/31/95

MGDS LA Annotated Outline Form A: Information Need	
Information Need Number:	INN 11.1.2.2-2
Section Number and Title:	11.1 SITE DESCRIPTION
Lead Author/Support Author and Phone:	Ken Ashe (702) 794-7665
Primary LA AO Table or Figure INN supports (if applicable):	
Explicit description of the needed information:	Discussion of industrial land use within an 80 km (50 mile) radius of the MGDS facility.
Information will be used to support:	
The Information is needed by/for (date or event):	After release of 2000 census results.
Most likely source of the Information:	
Information Source Description:	
Does the supporting data need to be QA?	

INTEGRATOR (PMO):	
Date information will be available:	
Deliverable providing information:	
If the data needed is QA, then the QA source document number is:	

Date: 03/31/95

MGDS LA Annotated Outline Form A: Information Need	
Information Need Number:	INN 11.1.2.2-3
Section Number and Title:	11.1 SITE DESCRIPTION
Lead Author/Support Author and Phone:	Ken Ashe (702) 794-7665
Primary LA AO Table or Figure INN supports (if applicable):	
Explicit description of the needed information:	Discussion of agricultural land use within an 80 km (50 mile) radius of the MGDS facility.
Information will be used to support:	
The Information is needed by/for (date or event):	After release of 2000 census results.
Most likely source of the Information:	
Information Source Description:	
Does the supporting data need to be QA?	

INTEGRATOR (PMO):	
Date information will be available:	
Deliverable providing information:	
If the data needed is QA, then the QA source document number is:	

Date: 03/31/95

MGDS LA Annotated Outline Form A: Information Need	
Information Need Number:	INN 11.1.2.2-4
Section Number and Title:	11.1 SITE DESCRIPTION
Lead Author/Support Author and Phone:	Ken Ashe (702) 794-7665
Primary LA AO Table or Figure INN supports (if applicable):	
Explicit description of the needed information:	Discussion of water use within an 80 km (50 mile) radius of the MGDS facility.
Information will be used to support:	
The Information is needed by/for (date or event):	After release of 2000 census results
Most likely source of the Information:	
Information Source Description:	
Does the supporting data need to be QA?	

INTEGRATOR (PMO):	
Date information will be available:	
Deliverable providing information:	
If the data needed is QA, then the QA source document number is:	

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Section 11.2 Types of Accidents

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 - 11.2.1.1.2-1 Description of postulated nuclear type accidents.
 - 11.2.1.1.3-1 Description of postulated failure of equipment type accidents.
 - 11.2.1.1.4-1 Description of postulated fires in critical area type accidents.
- 11.2.1.2-1 Description of abnormal operational events.
- 11.2.2-1 Discussion of methodology for detection of emergency conditions.
 - 11.2.2.1-1 Description of process system emergency conditions.
 - 11.2.2.2-1 Description of alarm system and release prevention emergency conditions.

11.2 TYPES OF ACCIDENTS

[The following sections will be developed when the design and technology for the MGDS facility is completed and a hazards analysis is performed for the specific systems and functions of the facility.]

11.2.1 Postulated Accidents and Abnormal Operational Events [INN 11.2.1-1]

11.2.1.1 Postulated Accidents [INN 11.2.1.1-1]

11.2.1.1.1 Natural Phenomena [INN 11.2.1.1.1-1]

11.2.1.1.2 Nuclear Criticality [INN 11.2.1.1.2-1]

11.2.1.1.3 Failure of Equipment [INN 11.2.1.1.3-1]

11.2.1.1.4 Fires in Critical Areas [INN 11.2.1.1.4-1]

11.2.1.2 Abnormal Operational Events [INN 11.2.1.2-1]

11.2.2 Detection of Emergency Conditions [INN 11.2.2-1]

11.2.2.1 Process System [INN 11.2.2.1-1]

11.2.2.2 Alarm System and Release Prevention [INN 11.2.2.2-1]

REFERENCES

Regulatory Guide 3.67, Standard Format and Content for Emergency Plans for Fuel Cycle and Materials Facilities, NRC, 1992

NUREG-0654 FEMA REP-1 Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants

NUREG-0396 EPA 520/1-78-016 (Planning Basis for Development of State and Local Government Radiological Emergency Plans in Support of Light Water Nuclear Power Plants)

(NOTE: The following DOE Orders are not applicable to DOE facilities licensed by the NRC, but are referenced for information purposes.)

DOE Order 5000.3A, Occurrence Reporting and Processing of Operations Information

DOE Order 5500, Planning for Operations Emergencies

DOE Order 5500.2B, Emergency Notification, Reporting and Response

DOE Order 5500.3A, Emergency Planning and Preparedness

DOE Order 5500.6A, Readiness Assurance for Emergency Management

Date: 03/31/95

MGDS LA Annotated Outline Form A: Information Need	
Information Need Number:	INN 11.2.1-1
Section Number and Title:	11.2 TYPES OF ACCIDENTS
Lead Author/Support Author and Phone:	Ken Ashe (702) 794-7665
Primary LA AO Table or Figure INN supports (if applicable):	
Explicit description of the needed information:	Description and discussion of postulated accidents at the MGDS facility.
Information will be used to support:	
The Information is needed by/for (date or event):	After accident projection methodology has been established.
Most likely source of the Information:	
Information Source Description:	
Does the supporting data need to be QA?	

INTEGRATOR (PMO):	
Date information will be available:	
Deliverable providing information:	
If the data needed is QA, then the QA source document number is:	

MGDS LA Annotated Outline Form A: Information Need	
Information Need Number:	INN 11.2.1.1-1
Section Number and Title:	11.2 TYPES OF ACCIDENTS
Lead Author/Support Author and Phone:	Ken Ashe (702) 794-7665
Primary LA AO Table or Figure INN supports (if applicable):	
Explicit description of the needed information:	Description of postulated accidents.
Information will be used to support:	
The Information is needed by/for (date or event):	After accident projection methodology has been established.
Most likely source of the Information:	
Information Source Description:	
Does the supporting data need to be QA?	

INTEGRATOR (PMO):	
Date information will be available:	
Deliverable providing information:	
If the data needed is QA, then the QA source document number is:	

Date: 03/31/95

MGDS LA Annotated Outline Form A: Information Need	
Information Need Number:	INN 11.2.1.1.1-1
Section Number and Title:	11.2 TYPES OF ACCIDENTS
Lead Author/Support Author and Phone:	Ken Ashe (702) 794-7665
Primary LA AO Table or Figure INN supports (if applicable):	
Explicit description of the needed information:	Description of postulated natural phenomena type accidents.
Information will be used to support:	
The Information is needed by/for (date or event):	After accident projection methodology has been established.
Most likely source of the Information:	
Information Source Description:	
Does the supporting data need to be QA?	

INTEGRATOR (PMO):	
Date information will be available:	
Deliverable providing information:	
If the data needed is QA, then the QA source document number is:	

MGDS LA Annotated Outline Form A: Information Need	
Information Need Number:	INN 11.2.1.1.2-1
Section Number and Title:	11.2 TYPES OF ACCIDENTS
Lead Author/Support Author and Phone:	Ken Ashe (702) 794-7665
Primary LA AO Table or Figure INN supports (if applicable):	
Explicit description of the needed information:	Description of postulated nuclear type accidents.
Information will be used to support:	
The Information is needed by/for (date or event):	After accident projection methodology has been established.
Most likely source of the Information:	
Information source Description:	
Does the supporting data need to be QA?	

INTEGRATOR (PMO):	
Date information will be available:	
Deliverable providing information:	
If the data needed is QA, then the QA source document number is:	

Date: 03/31/95

MGDS LA Annotated Outline Form A: Information Need	
Information Need Number:	INN 11.2.1.1.3-1
Section Number and Title	11.2 TYPES OF ACCIDENTS
Lead Author/Support Author and Phone:	Ken Ashe (702) 794-7665
Primary LA AO Table or Figure INN supports (if applicable):	
Explicit description of the needed information:	Description of postulated failure of equipment type accidents.
Information will be used to support:	
The Information is needed by/for (date or event):	After accident projection methodology has been established.
Most likely source of the Information:	
Information Source Description:	
Does the supporting data need to be QA?	

INTEGRATOR (PMO):	
Date information will be available:	
Deliverable providing information:	
If the data needed is QA, then the QA source document number is:	

MGDS LA Annotated Outline Form A: Information Need	
Information Need Number:	INN 11.2.1.1.4-1
Section Number and Title:	11.2 TYPES OF ACCIDENTS
Lead Author/Support Author and Phone:	Ken Ashe (702) 794-7665
Primary LA AO Table or Figure INN supports (if applicable):	
Explicit description of the needed information:	Description of postulated fires in critical area type accidents.
Information will be used to support:	
The Information is needed by/for (date or event):	After accident projection methodology has been established.
Most likely source of the Information:	
Information Source Description:	
Does the supporting data need to be QA?	

INTEGRATOR (PMO):	
Date information will be available:	
Deliverable providing information:	
If the data needed is QA, then the QA source document number is:	

Date: 03/31/95

MGDS LA Annotated Outline Form A: Information Need	
Information Need Number:	INN 11.2.1.2-1
Section Number and Title:	11.2 TYPES OF ACCIDENTS
Lead Author/Support Author and Phone:	Ken Ashe (702) 794-7665
Primary LA AO Table or Figure INN supports (if applicable):	
Explicit description of the needed information:	Description of abnormal operational events.
Information will be used to support:	
The Information is needed by/for (date or event):	After methodology for identifying abnormal operational events has been established.
Most likely source of the Information:	
Information Source Description:	
Does the supporting data need to be QA?	

INTEGRATOR (PMO):	
Date information will be available:	
Deliverable providing information:	
If the data needed is QA, then the QA source document number is:	

MGDS LA Annotated Outline Form A: Information Need	
Information Need Number:	INN 11.2.2-1
Section Number and Title:	11.2 TYPES OF ACCIDENTS
Lead Author/Support Author and Phone:	Ken Ashe (702) 794-7665
Primary LA AO Table or Figure INN supports (if applicable):	
Explicit description of the needed information:	Discussion of methodology for detection of emergency conditions.
Information will be used to support:	
The Information is needed by/for (date or event):	After methodology for detection of emergency conditions has been established.
Most likely source of the Information:	
Information Source Description:	
Does the supporting data need to be QA?	

INTEGRATOR (PMO):	
Date information will be available:	
Deliverable providing information:	
If the data needed is QA, then the QA source document number is:	

Date: 03/31/95

MGDS LA Annotated Outline Form A: Information Need	
Information Need Number:	INN 11.2.2.1-1
Section Number and Title:	11.2 TYPES OF ACCIDENTS
Lead Author/Support Author and Phone:	Ken Ashe (702) 794-7665
Primary LA AO Table or Figure INN supports (if applicable):	
Explicit description of the needed information:	Description of process system emergency conditions.
Information will be used to support:	
The Information is needed by/for (date or event):	After methodology for detection of emergency conditions has been established.
Most likely source of the Information:	
Information Source Description:	
Does the supporting data need to be QA?	

INTEGRATOR (PMO):	
Date information will be available:	
Deliverable providing information:	
If the data needed is QA, then the QA source document number is:	

Date: 03/31/95

MGDS LA Annotated Outline Form A: Information Need	
Information Need Number:	INN 11.2.2.2-1
Section Number and Title:	11.2 TYPES OF ACCIDENTS
Lead Author/Support Author and Phone:	Ken Ashe (702) 794-7665
Primary LA AO Table or Figure INN supports (if applicable):	
Explicit description of the needed information:	Description of alarm system and release prevention emergency conditions.
Information will be used to support:	
The Information is needed by/for (date or event):	After methodology for detection of emergency conditions has been established.
Most likely source of the Information:	
Information Source Description:	
Does the supporting data need to be QA?	

INTEGRATOR (PMO):	
Date information will be available:	
Deliverable providing information:	
If the data needed is QA, then the QA source document number is:	

SKELETON TEXT

Date: 03/31/95

YMP/94-05, Rev.0

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Section 11.3 Classification of Accidents

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- 11.3.3.2-1 Off-Site Protective Action Recommendations Form [INN 11.3.2-1]

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- 11.3.2-1 Conditions which would require notification to and involvement of off-site support agencies and examples of off-site protective action recommendations which would be made to off-site agencies.

- 11.3.3.1-1 The text of a standard emergency notification message form to be used by MGDS facility management to notify concerned organizations regarding an emergency situation.

Date: 03/31/95

11.3 CLASSIFICATION OF ACCIDENTS

Three classification categories have been established for postulated accidents at the MGDS facility. Classification categories and their descriptions are listed in this section. The postulated accidents to which the classifications relate are described in Subsection 11.2.1.1.

11.3.1 Classification System

11.3.1.1 Unusual Event

An "Unusual Event" is defined as a situation in which no release of radioactive or other hazardous material is imminent, but which could require non-routine actions or augmentation staff. Examples of such events are a tornado watch, explosion, or gunfire near the site, and transportation of a radioactively contaminated injured individual to an off-site medical facility.

11.3.1.2 Alert

An "Alert" is defined as an incident that has led to, or could lead to, a release of radioactive or other hazardous material, but the release did not or is not expected to require a response by an off-site agency to protect persons off-site. An alert reflects mobilization of the licensee's emergency response organization, either on alert status or full mobilization, but does not indicate an expectation of off-site consequences. It may, however, require off-site response organization support for on-site situations such as fire.

11.3.1.3 Site Area Emergency

A "Site Area Emergency" is defined as an incident that has led to, or could lead to, a release of radioactive or other hazardous material and could require a response by an off-site response organization to protect persons off-site.

11.3.1.4 Initiating Conditions/Emergency Action Levels

The postulated accidents described in Section 11.2 are the basis for the initiating conditions. Emergency Action levels for each initiating condition within the three classifications of postulated accidents are used to provide guidance as to the classification of each incident.

11.3.2 Notification and Coordination

The MGDS Facility Shift Supervisor is responsible for coordinating the notification of all personnel on-site and for notifying the state and county 24-hour contact points upon declaration of any of the three emergency classifications. The Shift Supervisor may also receive Process or Area alarms that would indicate a potential for one of the three emergency classifications. MGDS facility personnel are responsible for notifying the Shift Supervisor of any incident which has the potential of being one of the three emergency classifications. The Shift Supervisor determines the level of response needed from the on-site Emergency

Response Organization and from the off-site support agencies. For Alert and Site Area Emergency classifications, the Shift Supervisor evaluates the need to make off-site protective action recommendations to the state and county emergency management agencies.

[INN 11.3.2-1]

Implementing procedures for each emergency classification contain specific guidance for:

- a. On-site response
- b. Emergency response organization activation
- c. Off-site protective action recommendations
- d. Off-site notification

In the event of an emergency classification at the MGDS facility, the off-site notification network is utilized to notify the state and county 24-hour contact points. All communication methods are available from the Shift Supervisor's area and from the primary and alternate Emergency Operation Centers. Subsection 11.6.2 describes the communications capability on-site to the off-site state and county contact points.

11.3.3 Information to be Communicated

11.3.3.1 Emergency Message Form

A standardized emergency message format has been established for use between the MGDS facility and the federal, state, and county emergency management personnel. The standardized message form is illustrated in Figure 11.3.3.1-1 [INN 11.3.3.1-1]. The MGDS facility Emergency Plan Implementing Procedures address notification requirements consistent with the emergency classification and the action level schedule.

11.3.3.2 Supporting Information

Figure 11.3.3.2-1 [INN 11.3.2-1] shows off-site protective action recommendations the MGDS facility personnel make to assist the state and local off-site authorities in preparing emergency messages for public information.

Date: 03/31/95

REFERENCES

Regulatory Guide 3.67, Standard Format and Content for Emergency Plans for Fuel Cycle and Materials Facilities, NRC, 1992

NUREG-0654 FEMA REP-1 Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants

NUREG-0396 EPA 520/1-78-016 (Planning Basis for Development of State and Local Government Radiological Emergency Plans in Support of Light Water Nuclear Power Plants)

(NOTE: The following DOE Orders are not applicable to DOE facilities licensed by the NRC, but are referenced for information purposes.)

DOE Order 5000.3A, Occurrence Reporting and Processing of Operations Information

DOE Order 5500, Planning for Operations Emergencies

DOE Order 5500.2B, Emergency Notification, Reporting and Response

DOE Order 5500.3A, Emergency Planning and Preparedness

DOE Order 5500.6A, Readiness Assurance for Emergency Management

FIGURE CAPTIONS

Figure 11.3.3.1-1 Standardized Emergency Notification Message Form

[INN 11.3.3.1-1]

Figure 11.3.3.2-1 Off-Site Protective Action Recommendations Form

A form used for recommending protective action for off-site agencies/organizations.

[INN 11.3.2-1]

MGDS LA Annotated Outline Form A: Information Need	
Information Need Number:	INN 11.3.2-1
Section Number and Title:	11.3 CLASSIFICATION OF ACCIDENTS
Lead Author/Support Author and Phone:	Ken Ashe (702) 794-7665
Primary LA AO Table or Figure INN supports (if applicable):	Figure 11.3.3.2-1
Explicit description of the needed information:	Conditions which would require notification to and involvement of off-site support agencies and examples of off-site protective action recommendations which would be made to off-site agencies.
Information will be used to support:	
The Information is needed by/for (date or event):	
Most likely source of the Information:	
Information Source Description:	
Does the supporting data need to be QA?	

INTEGRATOR (PMO):	
Date information will be available:	
Deliverable providing information:	
If the data needed is QA, then the QA source document number is:	

MGDS LA Annotated Outline Form A: Information Need	
Information Need Number:	INN 11.3.3.1-1
Section Number and Title:	11.3 CLASSIFICATION OF ACCIDENTS
Lead Author/Support Author and Phone:	Ken Ashe (702) 794-7665
Primary LA AO Table or Figure INN supports (if applicable):	Figure 11.3.3.1-1
Explicit description of the needed information:	The text of a standard emergency notification message form to be used by MGDS facility management to notify concerned organizations regarding an emergency situation.
Information will be used to support:	
The Information is needed by/for (date or event):	
Most likely source of the Information:	
Information Source Description:	
Does the supporting data need to be QA?	

INTEGRATOR (PMO):	
Date information will be available:	
Deliverable providing information:	
If the data needed is QA, then the QA source document number is:	

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11.4.2.6 Maintenance Manager	11.4-3
11.4.2.7 Compliance Manager	11.4-3
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- 11.4.4-1 Coordination and Interaction of the MGDS Facility with Off-Site Agencies/Organizations [INN 11.4.4-1]

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- 11.4.3-2 Letter of Agreement (Fire Department) [INN 11.4.3-2]

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- 11.4.2-1 An organization chart showing on-site and off-site emergency support relationships.
- 11.4.2.1-1 A table indicating the primary and back-up means of communications with off-site agencies/organizations.
- 11.4.3-1 Emergency assistance agreement with the closest hospital.
- 11.4.3-2 Emergency assistance agreement with the fire department.
- 11.4.3-3 The name of the full-service hospital closest to the MGDS facility.
- 11.4.3-4 Distance from the MGDS facility to the nearest full-service hospital.
- 11.4.4-1 Table outlining coordination and interaction relationships between the MGDS facility and outside agencies/organizations.

Date: 03/31/95

11.4 RESPONSIBILITIES**11.4.1 Normal Facility Organization**

The normal facility operating organization is shown in Figure 11.4.1-1 [INN 11.4.1-1]. More detailed information regarding the normal facility organization is provided in Chapter 2.

11.4.2 Facility Organization During Emergency Conditions

Figure 11.4.2-1 [INN 11.4.2-1] illustrates the facility organization during emergency conditions. The relationship of personnel to their normal responsibilities and duties is unchanged during an emergency condition. Special responsibilities for each position are outlined below.

11.4.2.1 Emergency Coordinator

Initial activities at the MGDS facility during any emergency condition are directed by the Shift Supervisor from the Central Control Room. The Shift Supervisor assumes the functions of the Emergency Coordinator until the arrival of the MGDS Facility Manager or his designee, at which time the MGDS Facility Manager or his designee assumes the functions of the Emergency Coordinator. The Emergency Coordinator has the authority and the responsibility to immediately and unilaterally initiate any emergency actions, including:

- a. Provide protective action recommendations to authorities responsible for implementing off-site emergency measures. This authority shall not be delegated to other members of the emergency organizations.
- b. Notification and activation of the facility, county, state, DOE, Department of the Air Force, and Nuclear Regulatory Commission (NRC) emergency organizations having a response role.
- c. Continued assessment of actual or potential consequences both on-site and off-site throughout the evolution of the emergency condition.
- d. Effective implementation of countermeasures in the environs, including protective actions for affected areas, implementation of monitoring teams, and facilities to evaluate the environmental consequences of the emergency condition, and prompt notification of and communications with off-site authorities (Table 11.4.2.1-1). [INN 11.4.2.1-1]
- e. Continued maintenance of an adequate state of emergency preparedness until the emergency situation has been effectively resolved and the facility is returned to a normal and safe condition.

Date: 03/31/95

11.4.2.2 Shift Manager

[Note: The nuclear power industry typically utilizes the Shift Manager (Shift Technical Advisor) to assist the Shift Supervisor during non-routine events. The MGDS facility organization may or may not use this position.]

The Shift Manager on duty ensures that all actions required during any emergency condition have been performed and that all actions necessary for the protection of persons and property are being taken. The Shift Manager continues to take all actions necessary to ensure that any emergency condition is brought under control.

11.4.2.3 MGDS Facility Manager

The MGDS Facility Manager (Emergency Coordinator), or in his absence a designated alternate, has responsibility and authority for activation of the Emergency Operations Center (EOC). The MGDS Facility Manager staffs the EOC with those personnel deemed necessary to allow the Central Control Room to gain immediate control of the emergency condition. The MGDS Facility Manager has direct communications via telephone and radio with off-site Response Teams, and via telephone to DOE, U.S. Air Force, and NRC representatives. The MGDS Facility Manager maintains lines of communication and consultation with these agencies to ensure that they are informed of the emergency condition at all times, in accordance with this Emergency Plan.

11.4.2.4 Operations Manager

The Operations Manager, when designated, assumes the duties of the MGDS Facility Manager. The Operations Manager provides technical expertise to the MGDS Facility Manager and the Shift Supervisor regarding solutions to operational problems. The Operations Manager ensures that each operating shift is staffed with competent personnel who are trained and are prepared to manage all abnormal conditions, and augments personnel resources as necessary to accomplish this goal. The Operations Manager provides technical expertise to other members of the EOC and works closely with the Maintenance Manager in restoring facility equipment to operational status during and after the abnormal condition.

11.4.2.5 Technical Support Manager

The Technical Support Manager, when designated, assumes the duties of the MGDS Facility Manager. The Technical Support Manager provides expertise to the MGDS Facility Manager and the Shift Supervisor regarding solutions to technical problems and provides technical expertise to the other members of the EOC in chemistry and engineering. The Technical Support Manager's duties include responsibility for communications with off-site emergency response groups. The Technical Support Manager ensures that all areas of responsibility under the Technical Support Manager's direction are staffed with competent personnel who are properly trained and are prepared to support resolution of any abnormal emergency condition.

Date: 03/31/95

11.4.2.6 Maintenance Manager

The Maintenance Manager, when designated, assumes the duties of the MGDS Facility Manager. The Maintenance Manager provides expertise to the MGDS Facility Manager and the Shift Supervisor regarding solutions to maintenance problems. The Maintenance Manager provides technical and engineering expertise to the other members of the EOC in areas of mechanical maintenance, planning, instrument and electrical maintenance, and materials support. The Maintenance Manager ensures that all areas of responsibility under the Maintenance Manager's direction are staffed with competent personnel who are properly trained and are prepared to support resolution of any abnormal condition.

11.4.2.7 Compliance Manager

[Note: The nuclear power industry typically utilizes a Compliance Manager to interface with regulatory organizations (NRC, Environmental Protection Agency, etc.). This position may be combined with another at the MGDS facility.]

The Compliance Manager, when designated, assumes the duties of the MGDS Facility Manager. The Compliance Manager provides technical expertise to the MGDS Facility Manager and the Shift Supervisor regarding conditions at the facility. The Compliance Manager provides technical expertise to other members of the EOC in the areas of licensing and emergency preparedness. This includes responsibility for communications with the NRC EOC. The Compliance Manager ensures that all areas under the Manager's direction are staffed with competent personnel who are properly trained and are prepared to support resolution of any abnormal condition.

11.4.2.8 Evacuation Coordinator

The designated Evacuation Coordinator, when designated, assumes the duties of the MGDS Facility Manager. The designated Evacuation Coordinator is also responsible for providing administrative support for the EOC. When designated, the Evacuation Coordinator directs security personnel in coordinating evacuation of affected areas of the facility and in accounting for facility personnel.

11.4.2.9 Radiation/Chemical Protection Manager

The Radiation/Chemical Protection Manager is responsible for providing EOC personnel information and recommendations to the Emergency Coordinator concerning actions at the facility and off-site which are deemed necessary for limiting exposures to facility personnel and members of the general public. This individual also has prime responsibility for decontamination activities, with assistance from others as necessary.

Date: 03/31/95

11.4.2.10 Community Relations Coordinator

The Community Relations Coordinator is responsible for coordinating news releases to the public. This includes ensuring that news releases about the MGDS facility are coordinated with other agencies making similar releases. The Emergency Coordinator/MGDS Manager has approval authority for all news releases regarding emergencies at the MGDS facility.

11.4.3 Local Off-Site Assistance to the MGDS Facility

On an annual basis, the MGDS facility establishes and maintains formal written emergency assistance agreements with the following agencies/groups:

- a. Hospital,
- b. Fire Department,
- c. Local and State law enforcement agencies,
- d. Local Emergency Planning Committee.

Copies of these emergency assistance agreements, if applicable, and other related correspondence are presented as Figures 11.4.3-1 [INN 11.4.3-1], 11.4.3-2 [INN 11.4.3-2], and 11.3.3.2-1 [INN 11.3.2-1].

A current telephone listing of all off-site organizations which might be needed during site emergency situations is maintained as part of the facility's Emergency Response Plan Implementing Procedures. The facility Emergency Coordinator or his designee is responsible for contacting and requesting assistance from local off-site emergency organizations when required during emergency situations.

[INN 11.4.3-3] Hospital, located approximately [INN 11.4.3-4] km from the facility, is used for treatment of personnel who cannot be satisfactorily treated at the facility. Physicians at the hospital, as well as other local physicians, are notified in writing by the MGDS staff of potential chemical and radiological hazards associated with facility operations. This provides a basis for the physicians' planning for potential cases they may be asked to treat.

[Note: In the utility industry, nuclear power plant staff has customarily provided required training to community support agencies. The MGDS facility staff also provides such training.]

Date: 03/31/95

11.4.4 Coordination with Participating Government Agencies

Coordination and interaction of the facility with off-site agencies/organizations in an emergency response situation is illustrated in Table 11.4.4-1 [INN 11.4.4-1]. Facility emergency response personnel meet at least annually with each designated participant off-site assistance group to accomplish training and to review items of mutual interest.

REFERENCES

Regulatory Guide 3.67, Standard Format and Content for Emergency Plans for Fuel Cycle and Materials Facilities, NRC, 1992

NUREG-0654 FEMA REP-1 Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants

NUREG-0396 EPA 520/1-78-016 (Planning Basis for Development of State and Local Government Radiological Emergency Plans in Support of Light Water Nuclear Power Plants)

(NOTE: The following DOE Orders are not applicable to DOE facilities licensed by the NRC, but are referenced for information purposes.)

DOE Order 5000.3A, Occurrence Reporting and Processing of Operations Information

DOE Order 5500, Planning for Operations Emergencies

DOE Order 5500.2B, Emergency Notification, Reporting and Response

DOE Order 5500.3A, Emergency Planning and Preparedness

DOE Order 5500.6A, Readiness Assurance for Emergency Management

TABLE TITLES

Table 11.4.2.1-1 Off-Site Communications

[A table indicating the primary and back-up means of communication with off-site agencies/organizations.]

[INN 11.4.2.1-1]

Table 11.4.4-1 Coordination and Interaction of the MGDS Facility with Off-Site Agencies/Organizations

[A table outlining coordination and interaction relationships between the MGDS facility and outside agencies/organizations.]

[INN 11.4.4-1]

FIGURE CAPTIONS

Figure 11.4.1-1 MGDS Facility Organization [INN 11.4.1-1]

An organization chart indicating the MGDS facility organization structure for normal operations

Figure 11.4.2-1 Off-Site Emergency Support [INN 11.4.2-1]

An organization chart indicating the on-site and off-site emergency support relationships

Figure 11.4.3-1 Letter of Agreement (Hospital) [INN 11.4.3-1]

A letter of agreement between the MGDS facility and off-site hospital(s), detailing emergency interface and assistance.

Figure 11.4.3-2 Letter of Agreement (Fire Department) [INN 11.4.3-2]

A letter of agreement between the MGDS facility and off-site fire department(s), detailing emergency interface and assistance.

Date: 03/31/95

MGDS LA Annotated Outline Form A: Information Need	
Information Need Number:	INN 11.4.1-1
Section Number and Title:	11.4 RESPONSIBILITIES
Lead Author/Support Author and Phone:	Ken Ashe (702) 794-7665
Primary LA AO Table or Figure INN supports (if applicable):	Figure 11.4.1-1
Explicit description of the needed information:	An organization chart showing the MGDS facility organization for normal (non-emergency) operations.
Information will be used to support:	
The Information is needed by/for (date or event):	
Most likely source of the Information:	
Information Source Description:	
Does the supporting data need to be QA?	

INTEGRATOR (PMO):	
Date information will be available:	
Deliverable providing information:	
If the data needed is QA, then the QA source document number is:	

MGDS LA Annotated Outline Form A: Information Need	
Information Need Number:	INN 11.4.2-1
Section Number and Title:	11.4 RESPONSIBILITIES
Lead Author/Support Author and Phone:	Ken Ashe (702) 794-7665
Primary LA AO Table or Figure INN supports (if applicable):	Figure 11.4.2-1
Explicit description of the needed information:	An organization chart showing on-site and off-site emergency support relationships.
Information will be used to support:	
The Information is needed by/for (date or event):	
Most likely source of the Information:	
Information Source Description:	
Does the supporting data need to be QA?	

INTEGRATOR (PMO):	
Date information will be available:	
Deliverable providing information:	
If the data needed is QA, then the QA source document number is:	

Date: 03/31/95

MGDS LA Annotated Outline Form A: Information Need	
Information Need Number:	INN 11.4.2.1-1
Section Number and Title:	11.4 RESPONSIBILITIES
Lead Author/Support Author and Phone:	Ken Ashe (702) 794-7665
Primary LA AO Table or Figure INN supports (if applicable):	Table 11.4.2.1-1
Explicit description of the needed information:	A table indicating the primary and back-up means of communication with off-site agencies/organizations
Information will be used to support:	
The Information is needed by/for (date or event):	TBD
Most likely source of the Information:	
Information Source Description:	None identified
Does the supporting data need to be QA?	

INTEGRATOR (PMO):	
Date information will be available:	
Deliverable providing information:	
If the data needed is QA, then the QA source document number is:	

MGDS LA Annotated Outline Form A: Information Need	
Information Need Number:	INN 11.4.3-1
Section Number and Title:	11.4 RESPONSIBILITIES
Lead Author/Support Author and Phone:	Ken Ashe (702) 794-7665
Primary LA AO Table or Figure INN supports (if applicable):	Figure 11.4.3-1
Explicit description of the needed information:	Emergency assistance agreement with the closest hospital
Information will be used to support:	Section 11.5.7
The Information is needed by/for (date or event):	TBD
Most likely source of the Information:	
Information Source Description:	None identified
Does the supporting data need to be QA?	

INTEGRATOR (PMO):	
Date information will be available:	
Deliverable providing information:	
If the data needed is QA, then the QA source document number is:	

Date: 03/31/95

MGDS LA Annotated Outline Form A: Information Need	
Information Need Number:	INN 11.4.3-2
Section Number and Title:	11.4 RESPONSIBILITIES
Lead Author/Support Author and Phone:	Ken Ashe (702) 794-7665
Primary LA AO Table or Figure INN supports (if applicable):	Figure 11.4.3-2
Explicit description of the needed information:	Emergency assistance agreement with the fire department
Information will be used to support:	Section 11.5.7
The Information is needed by/for (date or event):	TBD
Most likely source of the Information:	
Information Source Description:	None identified
Does the supporting data need to be QA?	

INTEGRATOR (PMO):	
Date information will be available:	
Deliverable providing information:	
If the data needed is QA, then the QA source document number is:	

MGDS LA Annotated Outline Form A: Information Need	
Information Need Number:	INN 11.4.3-3
Section Number and Title:	11.4 RESPONSIBILITIES
Lead Author/Support Author and Phone:	Ken Ashe (702) 794-7665
Primary LA AO Table or Figure INN supports (if applicable):	
Explicit description of the needed information:	The name of the full-service hospital closest to the MGDS facility.
Information will be used to support:	Sections 11.4.3, 11.5.6, and 11.5.7
The Information is needed by/for (date or event):	
Most likely source of the Information:	
Information Source Description:	
Does the supporting data need to be QA?	

INTEGRATOR (PMO):	
Date information will be available:	
Deliverable providing information:	
If the data needed is QA, then the QA source document number is:	

Date: 03/31/95

MGDS LA Annotated Outline Form A: Information Need	
Information Need Number:	INN 11.4.3-4
Section Number and Title:	11.4 RESPONSIBILITIES
Lead Author/Support Author and Phone:	Ken Ashe (702) 794-7665
Primary LA AO Table or Figure INN supports (if applicable):	
Explicit description of the needed information:	Distance from the MGDS facility to the nearest full-service hospital.
Information will be used to support:	Sections 11.4.3 and 11.5.7
The Information is needed by/for (date or event):	
Most likely source of the Information:	
Information Source Description:	
Does the supporting data need to be QA?	

INTEGRATOR (PMO):	
Date information will be available:	
Deliverable providing information:	
If the data needed is QA, then the QA source document number is:	

MGDS LA Annotated Outline Form A: Information Need	
Information Need Number:	INN 11.4.4-1
Section Number and Title:	11.4 RESPONSIBILITIES
Lead Author/Support Author and Phone:	Ken Ashe (702) 794-7665
Primary LA AO Table or Figure INN supports (if applicable):	Table 11.4.4-1
Explicit description of the needed information:	Table outlining coordination and interaction relationships between the MDGS facility and outside agencies/organizations
Information will be used to support:	
The Information is needed by/for (date or event):	TBD
Most likely source of the Information:	
Information Source Description:	None identified
Does the supporting data need to be QA?	

INTEGRATOR (PMO):	
Date information will be available:	
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- 11.5.5.1.2-1 Description of exposure guidelines for emergency workers involved in emergency radiation incidents.
- 11.5.6-1 Identity of the organization to contact to provide ambulance transportation from the MGDS facility to the nearest full-service hospital in the event of injury to facility personnel requiring such service.

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11.5 EMERGENCY RESPONSE MEASURES

11.5.1 Activation of Emergency Response Organization

The EOC is activated as required by the appropriate implementing procedures. Activation of the EOC is required for the Alert and Site Area classifications. Should conditions warrant, the Shift Supervisor may elect to partially activate the EOC. This would only occur if the event is of short duration and is easily managed by a few personnel.

11.5.2 Assessment and Corrective Actions

The emergency classification scheme outlined in Section 11.3 is used to classify initiating events.

11.5.2.1 Dose Assessment

A dose assessment methodology provides the capability to calculate the dose from actual release following an accidental release of radioactive materials [INN 11.5.2.1-1]. The dose assessment model uses local meteorology in conjunction with the amount of radioactive material released.

11.5.2.2 Hazardous Material Release

Determinations are made as to the extent of planning for a hazardous material release, based on the technology chosen and the hazardous materials involved.

11.5.3 Mitigating Actions

Abnormal operations or emergency procedures provide mitigating actions for emergency events at the MGDS facility.

11.5.4 Protective Actions

The MGDS facility on-site paging system (loudspeakers and local radio network) provides the principal means to alert and notify site personnel of an emergency situation. Facility employees not having emergency assignments, visitors, and contractor personnel who are in the area of concern are conducted to assembly areas. Evacuation of on-site personnel to off-site locations is detailed in implementing procedures.

11.5.4.1 Provisions

Provisions for emergency equipment for the Emergency Response Organization are provided and MGDS facility kits are made immediately available. Specific contents of the emergency kits are listed in the MGDS facility Radiation Protection Procedures.

11.5.4.2 Contamination Control

Radiation Protection Procedures outline the contamination control measures to be taken during emergency events. Radiation Protection personnel that are members of the Emergency Response Organization provide specific guidance and direction for contamination control for the emergency event.

11.5.5 Exposure Control in Radiological Emergencies**11.5.5.1 Emergency Radiation Exposure Control Program****11.5.5.1.1 Exposure and Monitoring**

For emergency incidents involving personnel radiation exposure, efforts are made to maintain exposure limits As Low As Reasonably Achievable. The MGDS facility Emergency Coordinator is responsible for authorization of emergency workers receiving radiation exposure in excess of prescribed limits.

11.5.5.1.2 Emergency Worker Exposure Guidelines

Emergency worker exposure guidelines follow: [INN 11.5.5.1.2-1].

11.5.5.1.3 Monitoring

Dose estimation techniques are subdivided into several categories:

- a. Thermoluminescent Dosimeter badges are worn by MGDS facility employees to monitor beta and gamma exposure.

[Note: The following may or may not be required, pending the accident analyses for the MGDS facility.]

- b. Criticality dosimeters are located within the surface headquarters building. When recovered and evaluated, the dosimeters provide spectrum information and assist in reconstruction of any criticality incident.
- c. Air sampling is used in situations involving airborne dispersal of radionuclides.
- d. Bioassay sample collection (fecal, urine, and nose smears) are also used for assessing internal exposure.

Dose records are evaluated and maintained by the Radiation Protection Group.

Date: 03/31/95

11.5.5.2 Decontamination of Personnel

In the event of a minor or localized incident not involving facility evacuation, personnel decontamination is accomplished by using standard radiation protection practices. Available facilities in this situation include personnel showers for whole body decontamination and a decontamination kit for localized contamination involving a limited body area. Effectiveness of decontamination efforts are evaluated by Radiation Protection personnel. Procedures are available which specify the extent of decontamination efforts which may be undertaken without medical supervision.

To support personnel decontamination during a facility evacuation, a decontamination kit, including selected decontamination agents, is included with the emergency supplies. This kit enables prompt gross decontamination where low levels are involved. Action levels for determining the need for personnel decontamination and the means for decontamination of personnel, wounds, supplies, instruments, and equipment is specified in facility response procedures.

11.5.6 Medical Transportation

In the event of an injury to facility personnel who may also be radiologically contaminated, [INN 11.5.6-1] is contacted and provides for ambulance transportation from the MGDS facility to [INN 11.4.3-3] Hospital.

[An ambulance and/or helicopter may be maintained on the MGDS site for evacuation.]

11.5.7 Medical Treatment

[INN 11.4.3-3] Hospital, located approximately [INN 11.4.3-4] miles from the MGDS facility, provides support services to the facility in the event of a medical emergency. Physicians associated with the hospital participate in annual emergency training involving the transportation and treatment of radiologically contaminated patients and those patients exposed to hazardous substances. Details regarding medical treatment arrangements between the MGDS facility and the off site hospital are described in letters of agreement (see Figures 11.4.3-1 and 11.4.3-2).

REFERENCES

Regulatory Guide 3.67, Standard Format and Content for Emergency Plans for Fuel Cycle and Materials Facilities, NRC, 1992

NUREG-0654 FEMA REP-1 Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants

NUREG-0396 EPA 520/1-78-016 (Planning Basis for Development of State and Local Government Radiological Emergency Plans in Support of Light Water Nuclear Power Plants)

(NOTE: The following DOE Orders are not applicable to DOE facilities licensed by the NRC, but are referenced for information purposes.)

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DOE Order 5500, Planning for Operations Emergencies

DOE Order 5500.2B, Emergency Notification, Reporting and Response

DOE Order 5500.3A, Emergency Planning and Preparedness

DOE Order 5500.6A, Readiness Assurance for Emergency Management

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MGDS LA Annotated Outline Form A: Information Need	
Information Need Number:	INN 11.5.2.1-1
Section Number and Title:	11.5 EMERGENCY RESPONSE MEASURES
Lead Author/Support Author and Phone:	Ken Ashe (702) 794-7665
Primary LA AO Table or Figure INN supports (if applicable):	
Explicit description of the needed information:	Radiation dose assessment methodology.
Information will be used to support:	
The Information is needed by/for (date or event):	
Most likely source of the Information:	
Information Source Description:	
Does the supporting data need to be QA?	N/A

INTEGRATOR (PMO):	
Date information will be available:	
Deliverable providing information:	
If the data needed is QA, then the QA source document number is:	

MGDS LA Annotated Outline Form A: Information Need	
Information Need Number:	INN 11.5.5.1.2-1
Section Number and Title:	11.5 EMERGENCY RESPONSE MEASURES
Lead Author/Support Author and Phone:	Ken Ashe (702) 794-7665
Primary LA AO Table or Figure INN supports (if applicable):	
Explicit description of the needed information:	Description of exposure guidelines for emergency workers involved in emergency radiation incidents.
Information will be used to support:	
The Information is needed by/for (date or event):	
Most likely source of the Information:	
Information Source Description:	
Does the supporting data need to be QA?	N/A

INTEGRATOR (PMO):	
Date information will be available:	
Deliverable providing information:	
If the data needed is QA, then the QA source document number is:	

Date: 03/31/95

MGDS LA Annotated Outline Form A: Information Need	
Information Need Number:	INN 11.5.6-1
Section Number and Title:	11.5 EMERGENCY RESPONSE MEASURES
Lead Author/Support Author and Phone:	Ken Ashe (702) 794-7665
Primary LA AO Table or Figure INN supports (if applicable):	
Explicit description of the needed information:	Identity of the organization to contact to provide ambulance transportation from the MGDS facility to the nearest full-service hospital in the event of injury to facility personnel requiring such service.
Information will be used to support:	
The Information is needed by/for (date or event):	
Most likely source of the Information:	
Information Source Description:	
Does the supporting data need to be QA?	N/A

INTEGRATOR (PMO):	
Date information will be available:	
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If the data needed is QA, then the QA source document number is:	

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- 11.6.3-2 Identification of the dedicated medical equipment located in the MGDS medical facility.
- 11.6.4.1-1 Discussion of Liquid Effluent Monitors used at the MGDS facility as part of the emergency monitoring equipment, including numbers and types.
- 11.6.4.2-1 Discussion of Air Monitors used at the MGDS facility as part of the emergency monitoring equipment, including numbers and types.
- 11.6.4.3-1 Discussion of Meteorological Monitors used at the MGDS facility as part of the emergency monitoring equipment, including numbers and types.

11.6 EMERGENCY RESPONSE EQUIPMENT AND FACILITIES

11.6.1 Central Control Room

[INN 11.6.1-1, INN 11.6.1-2]

11.6.2 On Site Communications Equipment

The communications methods consist of the following:

- a. Direct telephone system to the established state and county 24-hour contact points,
- b. Radio net, which includes the established state and county 24-hour contact points,
- c. Normal telephone system,
- d. Electronic facsimile net, which includes the established state and county 24-hour contact points,
- e. Emergency Notification System to the NRC,
- f. Direct communication link with the DOE,

11.6.3 On Site Medical Facilities

The MGDS medical facility is located in the [INN 11.6.3-1] building and has the following dedicated medical equipment: [INN 11.6.3-2]

11.6.4 Emergency Monitoring Equipment

Specific MGDS facility implementing procedures list the equipment available for use during emergencies, as well as the frequency of inspection, inventory, and operational checks. The MGDS facility Radiation Protection Manual defines the criteria for calibration of all monitoring equipment for emergency use.

[Note: The following sections will be developed based upon the specific technology chosen, the facility layout, and regulatory requirements. Typically, monitoring of liquid and air effluents is performed by process and area monitors. Meteorological monitoring could be performed from instrumentation located on a tower located at the MGDS facility site.]

11.6.4.1 Liquid Effluent Monitors

[INN 11.6.4.1-1]

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11.6.4.2 Air Monitors

[INN 11.6.4.2-1]

11.6.4.3 Meteorological Monitors

[INN 11.6.4.3-1]

Date: 03/31/95

REFERENCES

Regulatory Guide 3.67, Standard Format and Content for Emergency Plans for Fuel Cycle and Materials Facilities, NRC, 1992

NUREG-0654 FEMA REP-1 Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants

NUREG-0396 EPA 520/1-78-016 (Planning Basis for Development of State and Local Government Radiological Emergency Plans in Support of Light Water Nuclear Power Plants)

(NOTE: The following DOE Orders are not applicable to DOE facilities licensed by the NRC, but are referenced for information purposes.)

DOE Order 5000.3A, Occurrence Reporting and Processing of Operations Information

DOE Order 5500, Planning for Operations Emergencies

DOE Order 5500.2B, Emergency Notification, Reporting and Response

DOE Order 5500.3A, Emergency Planning and Preparedness

DOE Order 5500.6A, Readiness Assurance for Emergency Management

MGDS LA Annotated Outline Form A: Information Need	
Information Need Number:	INN 11.6.1-1
Section Number and Title:	11.6 EMERGENCY RESPONSE EQUIPMENT AND FACILITIES
Lead Author/Support Author and Phone:	Ken Ashe (702) 794-7665
Primary LA AO Table or Figure INN supports (if applicable):	
Explicit description of the needed information:	Identity of the building in which the Control Room (for emergency responses) is located.
Information will be used to support:	
The Information is needed by/for (date or event):	
Most likely source of the Information:	
Information Source Description:	
Does the supporting data need to be QA?	

INTEGRATOR (PMO):	
Date information will be available:	
Deliverable providing information:	
If the data needed is QA, then the QA source document number is:	

Date: 03/31/95

MGDS LA Annotated Outline Form A: Information Need	
Information Need Number:	INN 11.6.1-2
Section Number and Title:	11.6 EMERGENCY RESPONSE EQUIPMENT AND FACILITIES
Lead Author/Support Author and Phone:	Ken Ashe (702) 794-7665
Primary LA AO Table or Figure INN supports (if applicable):	
Explicit description of the needed information:	Identification of alternate locations for use in the event the Central Control Room is not available.
Information will be used to support:	
The Information is needed by/for (date or event):	
Most likely source of the Information:	
Information Source Description:	
Does the supporting data need to be QA?	

INTEGRATOR (PMO):	
Date information will be available:	
Deliverable providing information:	
If the data needed is QA, then the QA source document number is:	

Date: 03/31/95

MGDS LA Annotated Outline Form A: Information Need	
Information Need Number:	INN 11.6.3-1
Section Number and Title:	11.6 EMERGENCY RESPONSE EQUIPMENT AND FACILITIES
Lead Author/Support Author and Phone:	Ken Ashe (702) 794-7665
Primary LA AO Table or Figure INN supports (if applicable):	
Explicit description of the needed information:	Identity of the building in which the MGDS medical facility is located.
Information will be used to support:	
The Information is needed by/for (date or event):	
Most likely source of the Information:	
Information Source Description:	
Does the supporting data need to be QA?	

INTEGRATOR (PMO):	
Date information will be available:	
Deliverable providing information:	
If the data needed is QA, then the QA source document number is:	

MGDS LA Annotated Outline Form A: Information Need	
Information Need Number:	INN 11.6.3-2
Section Number and Title:	11.6 EMERGENCY RESPONSE EQUIPMENT AND FACILITIES
Lead Author/Support Author and Phone:	Ken Ashe (702) 794-7665
Primary LA AO Table or Figure INN supports (if applicable):	
Explicit description of the needed information:	Identification of the dedicated medical equipment located in the MGDS medical facility.
Information will be used to support:	
The Information is needed by/for (date or event):	
Most likely source of the Information:	
Information Source Description:	
Does the supporting data need to be QA?	

INTEGRATOR (PMO):	
Date information will be available:	
Deliverable providing information:	
If the data needed is QA, then the QA source document number is:	

MGDS LA Annotated Outline Form A: Information Need	
Information Need Number:	INN 11.6.4.1-1
Section Number and Title:	11.6 EMERGENCY RESPONSE EQUIPMENT AND FACILITIES
Lead Author/Support Author and Phone:	Ken Ashe (702) 794-7665
Primary LA AO Table or Figure INN supports (if applicable):	
Explicit description of the needed information:	Discussion of Liquid Effluent Monitors used at the MGDS facility as part of the emergency monitoring equipment, including numbers and types.
Information will be used to support:	
The Information is needed by/for (date or event):	
Most likely source of the Information:	
Information Source Description:	
Does the supporting data need to be QA?	

INTEGRATOR (PMO):	
Date information will be available:	
Deliverable providing information:	
If the data needed is QA, then the QA source document number is:	

Date: 03/31/95

MGDS LA Annotated Outline Form A: Information Need	
Information Need Number:	INN 11.6.4.2-1
Section Number and Title:	11.6 EMERGENCY RESPONSE EQUIPMENT AND FACILITIES
Lead Author/Support Author and Phone:	Ken Ashe (702) 794-7665
Primary LA AO Table or Figure INN supports (if applicable):	
Explicit description of the needed information:	Discussion of Air Monitors used at the MGDS facility as part of the emergency monitoring equipment, including numbers and types.
Information will be used to support:	
The Information is needed by/for (date or event):	
Most likely source of the Information:	
Information Source Description:	
Does the supporting data need to be QA?	

INTEGRATOR (PMO):	
Date information will be available:	
Deliverable providing information:	
If the data needed is QA, then the QA source document number is:	

MGDS LA Annotated Outline Form A: Information Need	
Information Need Number:	INN 11.6.4.3-1
Section Number and Title:	11.6 EMERGENCY RESPONSE EQUIPMENT AND FACILITIES
Lead Author/Support Author and Phone:	Ken Ashe (702) 794-7665
Primary LA AO Table or Figure INN supports (if applicable):	
Explicit description of the needed information:	Discussion of Meteorological Monitors used at the MGDS facility as part of the emergency monitoring equipment, including numbers and types.
Information will be used to support:	
The Information is needed by/for (date or event):	
Most likely source of the Information:	
Information Source Description:	
Does the supporting data need to be QA?	

INTEGRATOR (PMO):	
Date information will be available:	
Deliverable providing information:	
If the data needed is QA, then the QA source document number is:	

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Section 11.7 Maintenance of Emergency Preparedness Capability

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11.7 MAINTENANCE OF EMERGENCY PREPAREDNESS CAPABILITY**11.7.1 Written Emergency Plan Implementation Procedures**

The MGDS facility Emergency Preparedness Manager develops and maintains a formal set of Emergency Plan Implementing Procedures applicable to the MGDS facility. These documents provide the guidance necessary for implementing specific emergency procedures for accident conditions and for all other categorized non-routine operational events. The guidance indicates the responsibility of facility management for preparing and implementing emergency plans and provides review and annual update of procedures. Individuals and groups assigned responsibilities in an emergency are informed of any changes in procedural requirements. A copy of all emergency instructions pertinent to each specific accident scenario and other categorized non-routine operational events are developed and included in the Emergency Plan Implementing Procedures.

11.7.2 Training**11.7.2.1 General Aspects**

The training program is designed specifically to train the operating and maintenance personnel in the use and effective operation of equipment while performing the intended tasks at the facility. The training consists of both classroom instruction and in-facility training in four basic program elements:

- a. Radiation Safety,
- b. Facility Operations,
- c. Equipment Operation,
- d. Emergency Procedures.

11.7.2.2 Training Period

Initial training for emergency response personnel is provided, and annual retraining is accomplished and documented in facility training files. Training for local law enforcement agency personnel will be conducted in accordance with the Facility Security Plan, Section 1.5. Training for all emergency personnel complies with applicable DOE Orders and NRC regulations.

11.7.2.3 Facility Organization Training

Emergency Training for emergency response personnel is conducted in accordance with applicable MGDS facility procedures for the Emergency Response Training Program. Specific lesson outlines for this training and documentation of the training are available at the MGDS facility.

Practical drills are conducted for each group within the organization to allow the individuals to perform their assigned functions. Makeup sessions are given and documentation (objective evidence) that all persons received training is provided in facility training files. Drill action items are developed to make enhancements in areas identified.

11.7.2.4 Training Radiological Protection Monitoring Team Personnel

Training for Radiological Protection Monitoring Team personnel is conducted by the Radiation Protection Group. Specific lesson plans for this training and documentation of training is maintained by the Radiation Protection Group.

11.7.2.5 First Aid Training

A Medical Emergency Response Team is comprised of MGDS facility personnel from various internal work groups.

11.7.2.6 Emergency Response Training (Off-Site Agency)

Emergency response training is provided to those organizations who may be called upon to respond to MGDS facility emergencies by providing information necessary to allow them to protect themselves and others in providing fire, governmental, law enforcement, and medical support services. This program is further defined in the Emergency Response Training Program. Specific lesson guides for these presentations and documentation of training is available at the MGDS facility.

11.7.2.7 Off-Site Support

Figures 11.4.3-1 and 11.4.3-2 illustrate letters of agreement with off-site support organizations which provide support to the MGDS facility during emergencies. The letters of agreement also address training for off-site support organizations.

11.7.3 Drills and Exercises

Planning, developing, scheduling, and conducting emergency response exercises and drills for the MGDS facility is the responsibility of the Emergency Preparedness Manager. Exercises are conducted in accordance with applicable DOE Orders, NRC requirements, and Federal Emergency Management Agency requirements. Scenarios are varied from year to year to ensure that all major elements of the emergency plan are tested over a six year period. Some

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exercises are unannounced to participants and are conducted during off normal hours to ensure a continued high level of readiness to cope with emergency events.

11.7.4 Exercise Critiques

Evaluation and critiques of all emergency response exercises are made by non-participating observers as soon after the conclusion of the exercise as possible. The findings are forwarded to the facility Emergency Preparedness Manager. Changes (needed corrective action, etc.) identified by the observers and concurred with by the facility Emergency Preparedness Manager are communicated to participating organizations and groups as soon as possible following the exercise. All plans are revised to reflect necessary changes.

11.7.5 Critique Action Items

The oral evaluations made during the critique and any follow-up written evaluation are compiled into a "Critique Action Item List." The list is transmitted to persons designated to have lead responsibility in resolution of the items. Completion dates are established during development of the action item list. The MGDS facility Emergency Preparedness Manager ensures that all action items are resolved satisfactorily.

11.7.6 Review and Updating of the Plan and Procedures

At least every 12 months, the MGDS facility Emergency Preparedness Manager arranges for an independent review of the Emergency Preparedness Program. The review is conducted by the Quality Assurance organization and will include plans, procedures, training programs, drills/exercises, equipment, and state/local plan interfaces. The documented review report is submitted to the appropriate facility management. Appropriate portions of the review results are reported to concerned federal, state, and local organizations. MGDS facility management evaluates the findings and ensures effective corrective action is taken, as appropriate. The results of the review, along with recommendations for improvement, are documented and retained by Quality Assurance.

11.7.7 Maintenance and Inventory of Emergency Equipment, Instrumentation, and Supplies

All equipment described in the Plan is inventoried and inspected for operability in accordance with applicable MGDS facility procedures. Corrective action is effected, as necessary, to remedy deficiencies.

11.7.8 Verification of Emergency Telephone Numbers

Emergency telephone numbers contained in the facility's Emergency Plan or its implementing procedures are verified and updated periodically as required by DOE Orders, NRC requirements, and MGDS facility periodic test procedures.

REFERENCES

Regulatory Guide 3.67, Standard Format and Content for Emergency Plans for Fuel Cycle and Materials Facilities, NRC, 1992

NUREG-0654 FEMA REP-1 Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants

NUREG-0396 EPA 520/1-78-016 (Planning Basis for Development of State and Local Government Radiological Emergency Plans in Support of Light Water Nuclear Power Plants)

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DOE Order 5500, Planning for Operations Emergencies

DOE Order 5500.2B, Emergency Notification, Reporting and Response

DOE Order 5500.3A, Emergency Planning and Preparedness

DOE Order 5500.6A, Readiness Assurance for Emergency Management

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Section 11.8 Records and Reports

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11.8 RECORDS AND REPORTS**11.8.1 Records of Incidents**

Records of emergency events are documented as completed procedures and are maintained in the completed procedures section of the document control area. These records are maintained permanently.

11.8.2 Records of Preparedness Assurance

Records are kept on file at the MGDS facility that confirm the Emergency Preparedness Program is designed to assure the proper response to radiological incidents and other emergencies. These records include training, drills, emergency equipment inventories and inspections, maintenance agreements with off site organizations, and reviews and updates of the Emergency Plan. These records are maintained for a minimum of five years.

REFERENCES

Regulatory Guide 3.67, Standard Format and Content for Emergency Plans for Fuel Cycle and Materials Facilities, NRC, 1992

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DOE Order 5500.6A, Readiness Assurance for Emergency Management

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Section 11.9 Recovery Description

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11.9.3 Resumption of Normal Operations	11.9-3
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11.9.1-1 Formal recovery organization (chart).

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11.9 RECOVERY DESCRIPTION

Recovery from an emergency incident begins when the emergency incident is under control and more deliberate planning can be made. It is the MGDS facility Emergency Coordinator's responsibility to determine when it is appropriate to enter into the recovery phase and terminate the emergency [Note: Determine if DOE and/or NRC should be included in the decision process]. Required activities may be performed prior to termination of the emergency, or they may be conducted as part of the recovery phase of response. Any facility or building reentry actions conducted prior to the termination of the emergency must be authorized by the MGDS facility Emergency Coordinator. Prior to facility or building reentry, the following actions are considered:

- a. Assessment of radiological/hazardous material surveillance data to determine areas potentially affected.
- b. Review of exposure histories of personnel required to participate in reentry operations.
- c. Determination of adequacy of monitoring and survey instrumentation and equipment (e.g., type, range number, calibration).
- d. Plan survey team activities to include:
 - (1) areas to be surveyed,
 - (2) anticipated radiation and contamination levels,
 - (3) survey equipment required,
 - (4) shielding requirements and availability,
 - (5) protective clothing and equipment required,
 - (6) access control procedures, including exposure control limits and personnel dosimetry requirements,
 - (7) decontamination requirements,
 - (8) communications requirements.
- e. Review and revise security access lists to prevent unauthorized or unintentional entry into hazardous areas.
- f. Reentry teams should be tasked with as many of the following tasks as practicable:
 - (1) Determination of the initial required recovery operations.
 - (2) Observation of hazards or potential hazards associated with the recovery operations.
 - (3) Conduct of comprehensive surveillance of facilities.
 - (4) Isolation and posting of areas.
 - (5) Assessing conditions of equipment and areas.

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In the period immediately following an incident, initial radiation/hazardous material monitoring involves only gross hazard assessment. This immediate surveillance is used to provide the basic initial information for recovery operations to begin.

11.9.1 Downgrade/Termination of an Emergency

Downgrading or terminating from an Alert or higher hazardous material emergency requires approval of the MGDS facility Emergency Coordinator.

- a. The following criteria for downgrading or terminating an emergency and beginning recovery operations shall be met:
 - (1) Hazardous material/radiation exposure levels are stable or decreasing.
 - (2) Affected facility is in a stable condition and can be maintained in that condition indefinitely.
 - (3) Fire or other similar emergency conditions no longer constitute a hazard.
 - (4) Releases of hazardous materials to the environment have ceased or are controlled.
 - (5) Incident scene can be preserved until cognizant investigative authority concurs that recovery or normal operations may be resumed.
 - (6) Discussions have been held with all off-site agencies and agreement has been reached to terminate the emergency.

- b. The extent of recovery activities will dictate the framework of the recovery organization:
 - (1) For events of a minor nature, the facility organization should be adequate to perform necessary recovery actions.
 - (2) For events involving damage to facility systems, the facility emergency response organization, or portions thereof, should be adequate to coordinate the necessary recovery actions.
 - (3) For events involving significant damage to facilities, a formal recovery organization will be established to manage the recovery actions. [INN 11.9.1-1]

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11.9.2 Recovery Organization

Upon termination of an emergency, the Emergency Response Organization [INN 11.9.1-1] is deactivated and a Recovery Organization is established to implement recovery plans. This organization is comprised of a Recovery Manager and key operating and security management personnel representing broad functional areas. The Recovery Organization operates from the EOC.

11.9.3 Resumption of Normal Operations

A final briefing of all Recovery Organization personnel and the DOE site representative is held to discuss resumption of normal operations and requirements for final reports on recovery operations. All documentation of recovery operations is collected and processed for permanent storage.

Date: 03/31/95

REFERENCES

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NUREG-0654 FEMA REP-1 Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants

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(NOTE: The following DOE Orders are not applicable to DOE facilities licensed by the NRC, but are referenced for information purposes.)

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DOE Order 5500, Emergency Preparedness

DOE Order 5500.2B, Emergency Categories, Classes, Notification, and Reporting Requirements

DOE Order 5500.3A, Emergency Planning and Preparedness

DOE Order 5500.6A, Readiness Assurance for Emergency Management

Date: 03/31/95

MGDS LA Annotated Outline Form A: Information Need	
Information Need Number:	INN 11.9.1-1
Section Number and Title:	11.9 RECOVERY DESCRIPTION
Lead Author/Support Author and Phone:	Ken Ashe (702) 794-7665
Primary LA AO Table or Figure INN supports (if applicable):	
Explicit description of the needed information:	Formal recovery organization (chart).
Information will be used to support:	
The Information is needed by/for (date or event):	
Most likely source of the Information:	
Information Source Description:	
Does the supporting data need to be QA?	

INTEGRATOR (PMO):	
Date information will be available:	
Deliverable providing information:	
If the data needed is QA, then the QA source document number is:	