

EMS Road Map

A. EMS Element	B. Location in ISMS Description	C. Document Location
1-Planning		
The ISMS/EMS Provides for the systematic planning of programs for pollution prevention [DOE O 450.1§4a.(1)(b)]	ISMS Description Plan 10200.016 Policy Statement 10200.010.	ESH&A Docs and Recs Files
The ISMS/EMS Provides for the systematic planning of programs for pollution prevention [DOE O 450.1§4a.(1)(b)]	Readiness Review (RR) Procedure 10200.010	ESH&A Docs and Recs Files
1.1 Environmental Aspects		
The ISMS/EMS includes policies [and] procedures to identify activities with significant environmental impacts [DOE O 450.1§4.a.(2)]	Environmental Aspects Procedure 10200.075, RR 10200.010	ESH&A Docs and Recs Files
1.2 - Legal and Other Requirements		
The ISMS/EMS provides for the systematic planning of programs for compliance with applicable requirements [DOE O 450.1 §4.a.(1)]	List serves, workshops, etc.	Various
	Contract No DE-AC02-07CH11358	www.internal.ameslab.gov
The ISMS/EMS includes (if applicable) conformity with DOE proposed actions with State Implementation Plans to attain and maintain national ambient air quality standards [DOE O 450.1§4.b.(1)(a)].	Air Permit 96-A-1282, Air Permit 96-A-1283	Environmental Specialist's Files
The ISMS/EMS includes (if applicable) implementation of a watershed approach for surface-water protection [DOE O 450.1 §4.b.(1)(b)].	Not Applicable	There are no watershed concerns
The ISMS/EMS includes (if applicable) protection of other natural resources, including biota [DOE O 450.1 §4.b(1)(d)].	Not Applicable	There are no other natural resources of concern
The ISMS/EMS includes (if applicable) protection of cultural resources [DOE O 450.1 §4.b.(1)(f)].	Procedure 10200.054, Hazard Identification for Excess Property & Materials	ESH&A Docs and Recs Files
The ISMS/EMS includes (if applicable) implementation of a site-wide approach for ground water protection [DOE O450.1 §4.b(1)(c)].	Not Applicable	There are no groundwater concerns
The ISMS/EMS includes (if applicable) protection of site resources from wildland and operational fires [DOE O 450.1 §4.b.(1)(e)].	Not Applicable	There are no wildlands of concern or operational fire concerns.

The ISMS/EMS provides for reduction or elimination of: the generation of waste, the release of pollutants to the environment, and the use of Class I ozone-depleting substances (ODS), through source reduction, reuse, segregation, and recycling and by procuring recycled-content materials and environmentally preferable products and services [DOE O 450.1 §4.b.(3)].	RR Procedure 10200.010 ESH&A Program Manual 10200.002 Waste Management Program Manual 10200.003	ESH&A Docs and Recs Files
The ISMS/EMS promotes the long-term stewardship of a site's natural and cultural resources throughout its operational, closure, and post-closure life cycle [DOE O 450.1 §4.b.(2)].	Policy Statement 10200.010 ESH&A Program Manual 10200.002	ESH&A Docs and Recs Files

1.3 - Objectives and Targets

The ISMS/EMS includes measurable environmental goals, objectives, and targets [DOE 450.1 §4.a.(3)].	Environmental Aspects Procedure 10200.075	ESH&A Docs and Recs Files
The ISMS/EMS includes site-specific goals that contribute to the accomplishment of DOE pollution prevention and energy efficiency goals [DOE 450.1 §5.c.(3)].	Environmental Aspects Procedure 10200.075	ESH&A Docs and Recs Files
	Objective/Target Goals Correspondences to EC from EMS Steering Group	Environmental Specialist's Files
Contractor ES&H performance objectives, performance measures, and commitments include appropriate environmental elements based on the environmental risks, impacts of activities at the site and established Departmental pollution prevention/energy efficiency goals [DOE O 450.1 §5.d.(17)].	Contract No. DE-AC02-07CH11358	www.internal.ameslab.gov

1.4 - Environmental Management Programs

The ISMS/EMS includes policies [and] procedures to manage, control, and mitigate the potential impacts of site activities with significant environmental impacts [DOE O 450.1 §4a.(2)].	Environmental Aspects Procedure 10200.075 RR Procedure 10200.010 ESH&A Program Manual 10200.002	ESH&A Docs and Recs Files
The ISMS/EMS includes (if applicable) conformity of DOE proposed actions with State Implementation Plans to attain and maintain national ambient air quality standards [DOE O 450.1 §4.b.(1)(a)].	Air Permit 96-A-1282, Air Permit 96-A-1283	Environmental Specialist's Files
The ISMS/EMS includes (if applicable) implementation of a watershed approach for surface-water protection [DOE O 450.1 §4.b.(1)(b)].	Not applicable	There are no watershed concerns.
The ISMS/EMS includes (if applicable) implementation of a site-wide approach for ground water protection [DOE O 450.1 §4.b.(1)(c)].	Not applicable	There are no ground water concerns.

The ISMS/EMS includes (if applicable) protection of other natural resources, including biota [DOE O 450.1 §4.b.(1)(d)].	Not applicable	There are no other natural resource concerns.
The ISMS/EMS includes development and implementation of cost-effective pollution prevention programs that use life-cycle assessment concepts and practices in determining program return-on-investment [DOE O 450.1 §5.c.(4)].	Objective/Target Goals Correspondences to EC from EMS Steering Group	Environmental Specialist's Files
	In-House Energy Plan 46300.003	Facility Service's Files
The ISMS/EMS includes (if applicable) protection of site resources from wildland and operational fires [DOE O 450.1 §4.b.(1)(e)].	Not applicable	There are no wildlands of concern.
The ISMS/EMS provides for reduction or elimination of: the generation of waste, the release of pollutants to the environment, and the use of Class I ozone-depleting substances (ODS), through source reduction, reuse, segregation, and recycling and by procuring recycled-content materials and environmentally preferable products and services [DOE O 450.1 §4.b.(3)].	RR Procedure 10200.010 Waste Management Program Manual 10200.003 Waste Min/P2 Plan 10200.023 ESH&A Program Manual 10200.002	ESH&A Docs and Recs Files
The ISMS/EMS promotes the long-term stewardship of a site's natural and cultural resources throughout its operational, closure, and post-closure life cycle [DOE O 450.1 §4.b.(2)].	Policy Statement 10200.010.	ESH&A Docs and Recs Files

2 - Implementation and Operation

The ISMS/EMS provides for the integrated execution of programs for public health and environmental protection, pollution prevention, and compliance with applicable requirements [DOE O 450.1 §4.a.(1)].	ESH&A Program Manual 10200.002 GET AL-001, EMS Guide 10200.006 Safety Performance Policy, 10200.007	ESH&A Docs and Recs Files
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2.1 - Roles, Authorities and Responsibilities

Structure and responsibility is addressed in DOE P 450.4, Safety Management System Policy; DOE P 411.1, Safety Management Functions Responsibilities and Authorities Policy; DOE M 411.1C, Safety Management Functions, Responsibilities and Authorities; and other DOE policies, procedures and requirements.	Environmental Aspects Procedure 10200.075 Safety Performance Policy, 10200.007	ESH&A Docs and Recs Files
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2.2 - Training, Awareness, and Competence

The ISMS/EMS includes training to identify activities with significant environmental impacts [DOE O 450.1 §4.a.(2)].	ESH&A Program Manual 10200.002	ESH&A Docs and Recs Files
The ISMS/EMS includes training to manage, control, and mitigate the potential impacts of site activities with significant environmental impacts [DOE O 450.1 §4.a.(2)].	ESH&A Program Manual 10200.002	ESH&A Docs and Recs Files
The ISMS/EMS includes training to assess performance and implement corrective actions where needed (DOE O 450.1 §4.a.(2)).	ESH&A Program Manual 10200.002	ESH&A Docs and Recs Files

2.3 - Communication

The ISMS/EMS provides for obtaining, as appropriate, community advice relevant to aspects of "Greening the Government" Executive orders, through new or existing outreach programs [DOE O 450.1 §5.d.(3)].	ESH&A Program Manual 10200.002	ESH&A Docs and Recs Files
	Annual Site Environmental Report	Lab's External website

2.4 - EMS Documentation

Approved ISMS descriptions have been updated, as necessary, to include EMS requirements [DOE O 450.1 §5.d.(2)].	ISMS Description Plan 10200.016	ESH&A Docs and Recs Files
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2.5 - Document Control

Document control is addressed in other DOE policies	ESH&A Program Manual 10200.002	ESH&A Docs & Recs
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2.6 - Operational Control

The ISMS/EMS includes procedures to manage, control, and mitigate the potential impacts of site activities with significant environmental impacts [DOE O 450.1 §4.a.(2)].	RR Procedure 10200.010	ESH&A Docs and Recs Files
	ESH&A Program Manual 10200.002	

2.7 - Emergency Preparedness and Response

Emergency preparedness and response is addressed in other DOE policies, procedures and requirements.	Ames Lab Emergency Plan 46300.001	ESH&A Docs and Recs Files
	ESH&A Program Manual 10200.002	

2.8 - Checking and Corrective Action

The ISMS/EMS provides for the evaluation of programs for compliance with applicable requirements [DOE O 450.1 §4.a.(1)(c)].	RR Procedure 10200.010	ESH&A Docs and Recs Files
	Walkthrough Procedures 10200.014, 021	
	Topical Appraisals Plan 10200.022	"
The ISMS/EMS provides for the evaluation of programs for public health and environmental protection [DOE O 450.1 §4.a.(1)(a)].	RR Procedure 10200.010	ESH&A Docs and Recs Files
	Walkthrough Procedures 10200.014, 021	
	Topical Appraisals Plan 10200.022	"
ISMS/EMS implementation is assessed as a component of the implementation of DOE P 450.5, Line Environment, Safety and Health Oversight (DOE O 450.1 §5.b.)	RR Procedure 10200.010	ESH&A Docs and Recs Files
	Walkthrough Procedures 10200.014, 021	
	Topical Appraisals Plan 10200.022	"

2.9 - Monitoring and Measurement

The ISMS/EMS includes policies [and] procedures to assess performance [DOE O 450.1 §4.a.(2)].	RR Procedure 10200.010	ESH&A Docs and Recs Files
	Walkthrough Procedures 10200.014, 021	
	Topical Appraisals Plan 10200.022	"
Contractor ES&H self-assessment programs within the framework of DOE P 450.5 are established and continue to be effective [DOE O 450.1 §5.d.(16)].	RR Procedure 10200.010	ESH&A Docs and Recs Files
	Walkthrough Procedures 10200.014, 021	
	Topical Appraisals Plan 10200.022	"
The ISMS/EMS ensures the early identification of, and appropriate response to, potential adverse environmental impacts associated with DOE operations, including, as appropriate, preoperational characterization and assessment and effluent and surveillance monitoring [DOE O 450.1 §4.b.(4)].	NEPA Plan 10200.025	ESH&A Docs and Recs Files
	RR Procedure 10200.010	
	Walkthrough Procedures 10200.014, 021	
	Topical Appraisals Plan 10200.022	ESH&A Docs and Recs Files
The ISMS/EMS provides for the conduct of environmental monitoring, as appropriate, to support the site's ISMS, to detect, characterize, and respond to releases from DOE activities [DOE O 450.1 §5.d.(14)].	RR Procedure 10200.010	ESH&A Docs and Recs Files
	Walkthrough Procedures 10200.014, 021	
	Topical Appraisals Plan 10200.022	ESH&A Docs and Recs Files
The ISMS/EMS provides for the conduct of environmental monitoring, as appropriate, to assess impacts [DOE O 450.1 §5.d.(14)].	RR Procedure 10200.010	ESH&A Docs and Recs Files
	Walkthrough Procedures 10200.014, 021	
	Topical Appraisals Plan 10200.022	"
The ISMS/EMS provides for the conduct of environmental monitoring, as appropriate, to estimate dispersal patterns in the environment [DOE O 450.1 §5.d.(14)].	RR Procedure 10200.010	ESH&A Docs and Recs Files
	Walkthrough Procedures 10200.014, 021	
	Topical Appraisals Plan 10200.022	"
The ISMS/EMS provides for the conduct of environmental monitoring, as appropriate, to characterize the pathways of exposure to members of the public; and to characterize the exposures and doses to individuals, and to the population [DOE O 450.1 §5.d.(14)].	RR Procedure 10200.010	ESH&A Docs and Recs Files
	Walkthrough Procedures 10200.014, 021	
	Topical Appraisals Plan 10200.022	G40 TASF
The ISMS/EMS provides for the conduct of environmental monitoring, as appropriate, to evaluate the potential impacts to the biota in the vicinity of the DOE activity [DOE O 450.1 §5.d.(14)].	Not Applicable	There are no biota concerns
The ISMS/EMS provides for the implementation of the analytical work supporting environmental monitoring using a consistent system for collecting, assessing, and documenting environmental data of known and documented quality [DOE O 450.1 §5.d.(15)(a)].	RR Procedure 10200.010	ESH&A Docs and Recs Files
	Walkthrough Procedures 10200.014, 021	
	Topical Appraisals Plan 10200.022	ESH&A Docs and Recs Files

The ISMS/EMS provides for the implementation of the analytical work supporting environmental monitoring using a validated and consistent approach for sampling and analysis of radionuclide samples to ensure laboratory data meet program-specific needs and requirements within the framework of a performance-based approach for analytical laboratory work [DOEO 450.1 §5.d.(15)(b)].	RR Procedure 10200.010 Walkthrough Procedures 10200.014, 021	ESH&A Docs and Recs Files
	Topical Appraisals Plan 10200.022	ESH&A Docs and Recs Files
The ISMS/EMS provides for the implementation of the analytical work supporting environmental monitoring using an integrated sampling approach to avoid duplicative data collection [DOE O 450.1 §5.d.(15)(c)].	RR Procedure 10200.010 Walkthrough Procedures 10200.014, 021	ESH&A Docs and Recs Files
	Topical Appraisals Plan 10200.022	ESH&A Docs and Recs Files

2.10 - Nonconformance and Corrective and Preventive Action

The ISMS/EMS includes policies [and]procedures to implement corrective actions where needed [DOE O 450.1 §4.a.(2)].	Classification and Investigation Procedure 10200.038, Corrective Action Procedure 10200.039, Event Reporting Program 40000.00, Lessons Learned Plan 10200.020	ESH&A Docs and Recs Files
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2.11 - Records

Record management is addressed in other DOE policies, procedures and requirements.	ESH&A Program Manual 10200.002	ESH&A Docs and Recs Files
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3 - Internal Assessments

The ISMS/EMS provides for the evaluation of programs for public health and environmental protection, pollution prevention, and compliance with applicable requirements [DOE O 450.1 §4.a.(1)].	NEPA Plan 10200.025	ESH&A Docs and Recs Files
	RR Procedure 10200.010 Walkthrough Procedures 10200.014, 021	
	Topical Appraisals Plan 10200.022	"
Contractor ES&H self-assessment programs within the framework of DOE P 450.5 are established and continue to be effective [DOE O 450.1 §5.d.(16)].	RR Procedure 10200.010 Walkthrough Procedures 10200.014, 021	ESH&A Docs and Recs Files
	Topical Appraisals Plan 10200.022	"

4 - Management Review

The ISMS/EMS provides for the evaluation of programs for public health and environmental protection, pollution prevention, and compliance with applicable requirements [DOE O 450.1 §4.a.(1)].	Contract No DE-AC02-07CH11358	www.internal.ameslab.gov
	Topical Appraisals Plan 10200.022	ESH&A Docs and Recs Files
The ISMS/EMS includes policies [and] procedures to assess performance [DOE O 450.1 §4.a.(2)].	Contract No DE-AC02-07CH11358	www.internal.ameslab.gov
	Topical Appraisals Plan 10200.022	Docs & Recs
The ISMS/EMS provides for annual reviews and updates (when appropriate) of the site's measurable environmental goals, objectives, and targets [DOE O 450.1 §4.a.(3)].	Environmental Aspects Procedure 10200.075	ESH&A Docs and Recs Files
ISMS/EMS implementation is assessed as a component of the implementation of DOE P 450.5, Line Environment, Safety and Health Oversight (DOE O 450.1 §5.b.).	Contract No DE-AC02-07CH11358	www.internal.ameslab.gov
	Topical Appraisals Plan 10200.022	ESH&A Docs and Recs Files
Contractor ES&H performance objectives, performance measures, and commitments are reviewed through the annual ISM review process [established pursuant to DEAR 970.5223-1 (e)] [DOE O 450.1 §5.d.(17)].	Contract No DE-AC02-07CH11358	www.internal.ameslab.gov
	ISMS Description Plan 10200.016	ESH&A Docs and Recs Files