Appendix G

MEMORANDUM of UNDERSTANDING

MISSOURI DEPARTMENT of NATURAL RESOURCES

MISSOURI DEPARTMENT of HEALTH AND SENIOR SERVICES

Table of Contents

Table of Contents 2

Departmental Mission Statements 3

Preamble 3

Section 1: General 4

Section 2: Coordination 6

Section 3: Water Pollution Control 10

Section 4: Drinking Water 22

Section 5: Solid, Infectious, and Pharmaceutical Waste 29

Section 6: Radiological Emergency Response 35

Section 7: Hazardous Waste/Substances 37

Section 8: Air Pollution Control 45

Section 9: Laboratory 49

Section 10: Terrorist/WMD and Other Emergency Response Events 53

Section 11: Long Term Stewardship 66

SIGNATURES 70

Acronym Glossary 71

Organization Charts 74

Departmental Mission Statements

The mission of the Department of Natural Resources is to preserve, protect, restore and enhance Missouri's natural, cultural and energy resources and to inspire their enjoyment and responsible use for present and future generations.

The Department of Health and Senior Services enhances quality of life for all Missourians by protecting and promoting the community's health and well being of citizen's of all ages.

Preamble

This Memorandum of Understanding (MOU) defines the activities that the Missouri Department of Health and Senior Services (DHSS) and the Missouri Department of Natural Resources (DNR) conduct in protecting the public health and the environment from contamination due to physical, chemical, radiological, and biological agents.

The main purpose of this agreement is to provide a common understanding of the responsibilities of each agency concerning the investigation, assessment, and control of physical, chemical, radiological, and biological agents in the environment. In general, DHSS is responsible for risk assessment, which is the process used to quantitatively or qualitatively estimate and characterize the probability of adverse effects occurring as a result of physical, chemical, radiological, or biological contamination. In general, DNR is responsible for risk management, which is the process of weighing and selecting of options and implementing controls to assure an appropriate level of protection from risks posed by physical, chemical, radiological, or biological contamination. Risk assessment is one of many tools used in the risk management process. Because of specific legislation or funding issues, there are exceptions to this general division of responsibilities. These exceptions are noted in the appropriate sections of the MOU.

Nothing in this agreement shall be construed to restrict in any way either department's authorities and/or responsibilities under the federal and state statutes with which they are charged.

Section 1: General

AGENCY ROLES

Missouri Department of Health and Senior Services (DHSS) protects the public and public health by

- identifying and preventing disease;
- assessing risk from exposures to toxic and radioactive materials;
- investigating, preventing, and remediating on-site sewage disposal system problems;
- responding to radiological accidents and incidents; and
- enforcing state and federal statutes on food protection, lodging, infectious waste from hospitals, on-site sewage, and radiological health.

Missouri Department of Natural Resources (DNR) protects the public health and the environment by --

- providing technical assistance;
- providing information to the public;
- enforcing state and federal statutes on air, drinking water, wastewater, hazardous waste, solid waste; and
- providing emergency response services to protect the public and the environment from releases of hazardous substances.

DNR and DHSS agree to actively promote and support coordination between the departments and with all local agencies involved in environmental health or environmental protection activities.

DHSS maintains contracts with all local public health agencies within the state of Missouri and provides these agencies with advice, assistance, and consultation.

DNR maintains air pollution control contracts with St. Louis County Department of Health and the City of Springfield-Greene County Health Department, as well as the City of St. Louis Health Department and Kansas City Health Department.

PARTIES

This agreement is entered into by the DNR Director and the DHSS Director. References to the directors of these two departments may be construed to mean their appropriate designees.

A. REVIEW COMMITTEE

This agreement will be reviewed each year by DNR and DHSS. The directors will each appoint representatives to meet at least once a year to review and resolve problems associated with the implementation of this agreement.

B. TERMS

This agreement shall remain in effect indefinitely from the date of execution. It may be terminated by either party with at least sixty (60) days written notice. This agreement may be modified upon the initiative of either party. Any modifications must be in writing and be signed by the DNR and DHSS directors.

Section 2: Coordination

A. NOTIFICATION

Both departments agree to notify the other of information pertaining to potential contamination which may affect public health or the environment in accordance with timeframes set out in each section of this MOU. Notification will be immediate in the event of emergency.

Both departments agree to notify the other immediately upon receipt of information pertaining to confirmed or highly probable illnesses suspected to be related to an environmental source.

After normal business hours, the appropriate single point of contact for notification at DNR shall be the Environmental Services Program's (ESP) Environmental Emergency Response (EER) twenty-four hour telephone hotline at (573) 634-2436 unless otherwise specifically designated in other provisions of this MOU, referenced Standard Operating Procedures (SOPs) or cited guidance documents. For DHSS Department Situation Room (DSR), the 24-hour telephone number is (800) 392-0272. The respective duty officers will be responsible for notifying appropriate program and management staff.

B. RELEASE OF PUBLIC INFORMATION

When possible, both departments agree to coordinate news releases concerning physical, chemical, radiological, or biological agents in the environment which have a potential effect on public health or require regulatory action. When both departments have roles in a situation, joint releases should be issued. DNR will be the lead agency for public statements or news releases about environmental regulatory actions, emergency responses other than radiation emergencies, and risk management decisions. DHSS will be the lead agency for statements or releases about human toxicity of physical, chemical, radiological or biological agents; risk and health assessment; radiological emergency response; and epidemiological studies of environmental contamination or environmentally-related disease. More specific procedures listed elsewhere in this document may apply to specific incidents.

C. EMERGENCY RESPONSE

The DNR Environmental Services Program (ESP) is the lead agency for hazardous substance emergencies, as provided in Sections 260.500-550, RSMo.

The DHSS Bureau of Environmental Epidemiology (BEE) is the lead agency for radiological emergencies when there is a risk to public health or safety. If there is no risk to public health or safety but a threat to the environment, DNR will assume the lead role.

The two departments agree to provide each other their formal plans for dealing with emergencies and to keep the plans up-to-date. Each agency will update the other with the names and home phone numbers for their designated emergency response personnel.

D. EPIDEMIOLOGICAL STUDIES, TOXICOLOGICAL EVALUATIONS, RISK ASSESSMENTS, AND OUTBREAK INVESTIGATIONS

DHSS through the Section for Disease Control and Environmental Epidemiology (DCEE) is the lead agency for assessing the human toxicity and risk of physical, chemical, radiological, and biological agents in the environment and for investigating communicable disease outbreaks suspected to be related to environmental causes. Most of these responsibilities fall within two bureaus of DCEE: the Bureau of Environmental Epidemiology (BEE) and the Bureau of Environmental Health Services (BEHS).

BEE will conduct risk/cleanup document reviews, determine safe residual site contamination levels, produce risk determinations for environmentally contaminated sites, and create Human Health Baseline Risk Assessments, Residual Risk Assessments, Preliminary Remedial Goals, or review such documents based on Environmental Protection Agency (EPA) Risk Assessment Guidance for Superfund (RAGS) or other methodologies as agreed upon by DNR and DHSS. This activity will require that a prior funding mechanism be established between DNR and EPA to redirect funding to DHSS for that purpose. These activities will be completed within a time frame agreed upon between DNR personnel requesting the risk assessment and the BEE personnel conducting the risk assessment.

BEE will advise DNR about changes in safe cleanup level determinations based on changes in toxicological information.

BEE will provide DNR with assessments of the toxicity of environmental agents upon request, as staffing (budget) and expertise permit.

Each agency will invite the other to participate in any group set up by either agency to review or modify any cleanup regulations or guidelines in order to assure protection of human health and the environment.

DHSS will conduct epidemiological studies related to environmental contamination or reports of non-communicable environmentally-related disease when DHSS considers that

activity necessary to protect public health. DHSS will consult and notify DNR of the results prior to release to the public.

DHSS will lead epidemiological and environmental investigations of suspected outbreaks of communicable diseases. If a suspected environmental source of an outbreak is regulated by DNR, DNR will conduct the environmental portion of the investigation with assistance and in coordination with the local health authority and/or staff from DHSS.

If the outbreak involves a public water system, DNR will conduct the inspection and evaluate the water system, coordinating with DHSS as appropriate.

For the purpose of fulfilling air permitting requirements, the DNR Air Pollution Control Program (APCP) will determine the Acceptable Ambient Level (AAL) following the protocol outlined in Section 8. BEE will assist the APCP in its determination of the AAL. Prior to the release of the AAL, BEE will have 30 days to review and comment on the recommended AAL.

E. LABORATORY SERVICES

Each department may request that the other's laboratory analyze environmental samples as budgets and work schedules permit. Special requests for DNR laboratory support should be in writing from the BEE Bureau Chief to the Environmental Services Program (ESP). Any DHSS laboratory or local health department employee, who wants to have samples analyzed by DNR/ESP, is to request that through BEE. Special requests for DHSS laboratory support should be in writing from the appropriate DNR program director, or the Division of Environment Quality director to the Director of the State Public Health Laboratory (SPHL).

The provision of laboratory services by DHSS for drinking water microbiological testing is covered under an annual work plan.

F. SHARING OF DRINKING WATER SUPPLY ANALYSES

Each agency agrees to make any results of analysis of drinking water samples not specifically covered by other provisions of this MOU available to the other upon request. DNR or DHSS staff will contact the DNR Environmental Services Program (ESP) Environmental Emergency Response (EER) twenty-four hour hotline at (573) 634-2436 immediately when contamination potentially related to a release, spill or other emergency situation is found in public or private drinking water supplies. DNR/EER will notify DHSS immediately upon becoming aware of such release, spill or other emergency situation involving drinking water supplies. DNR/EER will contact other DNR programs/regions and DHSS for appropriate follow-up.

G. IMPLEMENTATION GUIDELINES FOR PROGRAMMATIC AND/OR POLICY CHANGE

Pursuant to Executive Order 02-05, both departments are required to provide an opportunity for comment on proposed rules that significantly impact the mission of the other agency at least 30 days before a proposed regulation is filed with the Secretary of State. In addition, both departments agree to work together to review proposed policies and program guidelines that may have an impact on the operations of the other department prior to dissemination to the general public. Both agencies agree to meet at least annually to review the overall interactions of cooperative activities.

H. CANCER INQUIRY COMMITTEE REPRESENTATION

DNR will provide a representative to the DHSS Division of Community and Public Health's Cancer Inquiry Committee. This representative will attend meetings of the committee to provide DNR's perspective regarding environmental concerns expressed to the committee by the citizens in their cancer inquiries. This representative will be alerted any time the committee determines a cancer cluster may be related to environmental contamination so the representative can communicate that information to other DNR personnel for possible follow-up.

I. ANNUAL WORK PLANNING MEETING

DNR, the Section for Disease Control and Environmental Epidemiology (DCEE), and other DHSS programs represented in this MOU will meet at least annually to advise each other about their projected annual work plans or strategic objectives so each agency is aware of activities that may impact them in the upcoming year. If either agency knows of specific activities or products they plan to request from the other agency for that year, this meeting will be the appropriate place to begin discussions regarding those needs. This meeting, or associated meetings involving program-level staff, should be used to discuss any coordination or cooperation issues between the agencies.

J. FUNDING

The agencies agree that the cost of all services, personnel, equipment, material or information shall be provided through an existing funding source (e.g., Hazardous Waste Fund (HWF), cooperative agreements with the U.S. Environmental Protection Agency (EPA), DNR-DHSS work plan, etc.). Funding for services not covered by an existing source will be negotiated at the time the service is requested.

Section 3: Water Pollution Control

A. Overview

The purpose of this section is to provide a common understanding of the responsibilities and provide guidance for the cooperative activities of DHSS and DNR related to domestic wastewater treatment and water pollution control. The goal is to improve the protection of public health and the environment through more effective communication, cooperation, and coordinated response, when appropriate, to wastewater treatment.

The specific agency units whose activities are covered in this section are:

- The DHSS Division of Community and Public Health (DCPH), Section for Disease Control and Environmental Epidemiology (DCEE)
    - Bureau of Communicable Disease Control and Prevention;
    - Bureau of Environmental Epidemiology; and the
    - Bureau of Environmental Health Services.
- The DNR Division of Environmental Quality (DEQ):
    - Water Protection Program (WPP);
    - Financial Assistance Center (FAC);
    - Regional Offices;
    - Environmental Services Program (ESP);
        - Environmental Emergency Response Section (EER); and
- The DNR Division of Geology and Land Survey (DGLS).

B. General Authority

1. DHSS

Per Section 192.011, RSMo, DHSS shall monitor the adverse health effects of the environment and prepare population risk assessments regarding environmental hazards including, but not limited to, those relating to water, air, toxic waste, solid waste, sewage disposal, and others. DHSS is to make recommendations to DNR for improvement of public health as related to the environment.

Per Section 192.020, RSMo, DHSS has primary responsibility for safeguarding the health of the people in the State and all its subdivisions.

2. DNR

The Missouri Clean Water Law Chapter 644, RSMo sets forth requirements to protect the waters of the state and to maintain and improve their quality for beneficial uses and ensure that no waste is discharged into any waters of the state without first receiving the necessary treatment or other corrective action to protect the legitimate beneficial uses of such waters and provide for the prevention, abatement and control of new or existing water pollution and to cooperate with other agencies of the state in carrying out these objectives.

The Missouri Clean Water Law Chapter 644 Section 644.051 states: "It shall be unlawful for any person to build, alter, replace, operate, use or maintain any water contaminant or point source in this state that is subject to the standards, rules or regulations promulgated pursuant to the provisions of section 644.006 to 644.141 unless such person holds a permit from the commission..."

DNR has jurisdictional responsibility for all wastes not defined as domestic which includes all industrial discharges. This category includes facilities that discharge contact stormwater.

A. Joint Responsibilities

1. DCEE and WPP will meet quarterly, or as needed, to ensure that the required coordination is occurring. Agenda items will include jurisdictional issues, interagency training needs, quarterly violations lists, new and proposed rules and statutes, and other topics as needed.

2. DCEE, WPP, DNR Regional Offices, ESP and EER will continue to work together to maintain and update as needed the existing Standard Operating Procedures.

3. DCEE and WPP will cooperate in the adoption of EPA's Voluntary National Guidelines for Management of On-site and Clustered (Decentralized) Wastewater Treatment Systems and implement management strategies where possible. DCEE will request DNR's support and cooperation to implement management elements under DNR jurisdiction.

4. DCEE and WPP will work together to promote knowledge of roles and responsibilities of each agency among agency staff, local public health agency staff, and outside stakeholders. This will cover jurisdictional matters and each agency's

role and authorities related to decentralized wastewater treatment options, residential housing development requirements, etc.

5. DCEE and WPP will cooperate in the development and implementation of processes for facility reporting, inter-agency notification, and public notices of bypasses, non-permitted discharges, spills, and potential spills.

6. DCEE and WPP will continue to cooperate in determining the most practicable, cost effective, health and environment protective wastewater treatment solutions for regulated facilities to ensure that the goals of both agencies are met.

DOMESTIC WASTEWATER

A. Overview

The purpose of this section is to provide a common understanding of responsibilities and provide guidance for the cooperative activities of DHSS and DNR related to domestic wastewater treatment. The goal is to improve the protection of public health and the environment through more effective communication, cooperation, and coordinated response.

B. General Authority

1. DHSS

The Missouri On-Site Sewage Laws, Sections 701.025-701.059, RSMo form the bases for the authority to regulate on-site wastewater systems by the DCEE. Subsection 701.033.1(1) directs DHSS to promulgate rules to carry out provisions of this law. The following rules have been established:

- 19 CSR 20-3.015 The Operation of On-site Sewage Treatment and Disposal Systems
- 19 CSR 20-3.040 Environmental Health Standards for the Control of Communicable Diseases
- 19 CSR 20-3.060 Minimum Construction Standards for On-Site Sewage Disposal Systems;
- 19 CSR 20-3.070 Requirements for On-Site Wastewater Treatment System Inspectors/Evaluators;
- 19 CSR 20-3.080 Requirements for Percolation Testers, On-Site Soils Evaluators and Registered On-Site Wastewater Treatment System Installers.

DHSS regulates lodging establishments (Sections 315.005 to 315.079, RSMo), food establishments (19 CSR 20-1.025), food processing facilities (Sections 196.010 to 196.271, RSMo), and child care facilities (Section 210.252, RSMo) (hereafter “DHSS regulated facilities”). DHSS requires regulated facilities to comply with DNR wastewater regulations and/or minimum on-site sewage regulations.

Domestic sewage is defined in Section 701.025, RSMo as: "...human excreta and wastewater, including bath and toilet waste, residential laundry waste, residential kitchen waste and other similar waste from household or establishment appurtenances..." This definition includes wastewater from restaurants, office buildings, church buildings, and many retail stores and similar facilities. It does not include process wastewaters, such as those from meat processing plants, wineries, cheese making facilities, mortuaries, truck/automobile service garages with floor drains, veterinary clinics, surgery suites, kennels, live fish bait operations, bio-fuel production facilities, and any other non-domestic wastes from commercial or industrial facilities.

Section 701.031, RSMo requires property owners of all buildings where people live, work, or assemble to provide for the sanitary disposal of all domestic sewage by discharging either to an on-site sewage system in accordance with on-site sewage laws and rules or in accordance with Chapter 644, which is administered by WPP.

A permit is required for the installation or major repair of an on-site sewage system except that owners of single-family residence lots of three acres or more and owners of ten acres or more with at least ten acres for each single family residence are exempt (unless adjacent to a lake operated by the Corps of Engineers or public utility.)

Conditions for the exemptions are:

- The system must be located in excess of ten feet from the property lines;
- No effluent may enter adjoining property, contaminate surface or groundwater or create a nuisance; and,
- For the ten acre exemption, no single-family residence on-site system may be located within three hundred sixty feet of any other.

Under Section 701.035, RSMo, political subdivisions are allowed to enforce ordinances establishing a system for the regulation and inspection of on-site systems, provided such ordinance establishes a system at least equal to state regulation. Local ordinances have been adopted by a number of municipalities and counties, including counties with ordinances giving authority to an agency other than the local public health agency (LPHA). Local agencies, including LPHAs whether or not they have an on-site system ordinance, implement local policies and procedures and hire staff independently.

DCEE or the local authority will have authority over wastewater treatment systems for single-family residences including single-family residence lagoons (one house – one lagoon) and holding tanks. DCEE or the local authority will also have jurisdiction over other sources of domestic sewage flows of three thousand gallons per day (3,000 gpd) or less, including multifamily residences, commercial facilities, and restaurants, which discharge into subsurface soil treatment/dispersal systems or holding tanks.

Section 701.043.1.(7), RSMo and 19 CSR 20-3.060 (6)(L), provide authority for DCEE to allow variances to the minimum separation distances, or to the minimum sizing of the soil treatment/dispersal area, for on-site wastewater treatment systems existing prior to January 1, 1996 or for lots platted prior to January 1, 1996.

Under Section 701.043.2., RSMo, when it is determined that an on-site wastewater treatment system complies with the state standards, additional requirements cannot be imposed.

2. DNR

DNR has jurisdictional responsibility for all flows greater than three thousand (>3,000) gallons per day along with some sources of domestic flows three thousand (3,000) gallons per day or less that do not discharge into subsurface soil absorption systems such as lagoon treatment systems serving multi-family, commercial and DHSS regulated facilities.

Title 10 – Department of Natural Resources, Division 20 – Clean Water Commission contains regulations promulgated under Chapter 644 to carry out provisions of the law.

- 10 CSR 20-6.010 Construction and Operating Permits
- 10 CSR 20-6.030 Disposal of Wastewater in Residential Housing Developments
- 10 CSR 20-7.015 Effluent Limits
- 10 CSR 20-7.031 Water Quality Standards
- 10 CSR 20-8 Chapter 8 - Design Guides

3. Determining Jurisdiction

Jurisdiction for all new wastewater treatment systems using soil treatment/dispersal or holding tanks will be determined by calculations of flow according to Table 2A of DHSS rule 19 CSR 20-3.060, Minimum Construction Standards for On-Site Sewage Disposal Systems.

Jurisdiction for existing facilities can be determined by using accurate and verifiable water use data in determining peak flows – not average daily flows - in gallons per day. Peak flow calculations should be compared to estimated daily flows according to Table 2A of the DHSS rule.

C. Roles and Responsibilities

1. DHSS

Section (l)(B) of 19 CSR 20-3.060 contains the Minimum Construction Standards for On-Site Sewage Disposal. When the DCEE receives an inquiry or permit application for a commercial/industrial facility or subdivision, DCEE will direct the developer to contact the DNR regional office or the WPP for DNR to review issues related to the Missouri Clean Water Law. Commercial facilities with domestic sewage flows less than or equal to three thousand gallons per day (≤3,000 gpd) do not need to be referred to the WPP when proposing to install subsurface soil absorption systems or holding tanks. However, any proposed soil treatment/dispersal system that would not comply with DHSS regulations or would discharge to the surface should be directed to the DNR regional office. The agencies will cooperate in reviewing the method of wastewater treatment for facilities generating small volumes of domestic wastewater and new housing developments.

DHSS may permit a lagoon system for single-family residences to include a small in-house business such as a child care facility licensed for up to 10 children, provided the additional wastewater is domestic and not more than 50% of the total design flow. If the additional flows are greater, or would become greater than 50% then the lagoon system would be the jurisdiction of DNR.

DHSS does not permit on-site wastewater treatment systems, such as sand filter systems or constructed wetlands that are designed to discharge to the soil surface.

When there is a concern for groundwater contamination at a site proposed for on-site wastewater treatment, DCEE may request an investigation by a registered geologist using the DGLS form, *Assessment of Individual On-Site Waste Disposal Geological Limitations* (19 CSR 20-3.060(1)(A) 49).

2. DNR

DNR has responsibility for all point source surface discharge of domestic wastewater whether or not the design flow is less than three thousand gallons (3,000 gals.) per day. All facilities which are proposing a point source surface discharge must obtain a construction and operating permit from WPP or DNR regional offices.

Most manufacturing facilities are considered potential sources of industrial waste and should be referred to DNR for determination of permitting authority.

DNR will retain jurisdiction over holding tanks, sewage tanks and other components intended for use as a part of a DNR permitted wastewater collection and treatment system.

The WPP has developed design criteria and standards for small sewage works (10 CSR 20-8.020) and criteria for determining the method of wastewater treatment in residential housing developments (10 CSR 20-6.030); WPP or DNR regional offices will review and approve sewage treatment plans for subdivisions and DHSS regulated facilities that require a construction permit under 10 CSR 20-6.010. WPP and the DNR Regional Offices will issue permits to construct and operate domestic wastewater treatment facilities, when required for DHSS regulated facilities. DNR permits are available for review electronically over the internet.

DNR has responsibility for determining when specific no–discharge facilities are eligible for permit exemptions. The exemption from construction and operating permits is possible when a facility generates 3,000 gallons per day or less of domestic wastewater that is held within a no-discharge lagoon, followed by either on-site land application or is pumped and hauled to a permitted treatment or disposal facility. If a facility satisfies these criteria, it is then exempt by rule and does not require WPP or DNR Regional Office approval, unless the department determines that construction or operating practices are not adequate. Nothing shall prevent the WPP or DNR Regional Office from taking action to ensure that a facility does not discharge into surface or groundwater of the state, including requiring a permit for a facility that was previously exempt. Even if no permit is required, the facility (lagoon) will remain the jurisdiction of DNR throughout its life.

If it can be demonstrated to the WPP or DNR Regional Office that an existing DNR permitted facility (lagoon) has flows less than or equal to 3,000 GPD and is functioning as a no-discharge facility as described above, then the WPP or DNR Regional Office may terminate the operating permit. If the no-discharge facility serves a business (convenience store, hotel, etc.) regulated by DHSS, the WPP or DNR Regional Office will give written notification (via email) to DCEE that the permit has been terminated and that the facility (lagoon) will remain the jurisdiction of DNR throughout its life.

10 CSR 20-6.030 Disposal of Wastewater in Residential Housing Developments, sets forth requirements for developers of residential housing to determine the method of wastewater disposal. The rule applies to all new residential housing developments and existing developments that were required to comply with previous regulations, but have not received department approval. Approval under the residential housing rule does not obligate DHSS to approve an on-site wastewater treatment system on any lot within any residential housing development. DNR is also responsible for approving the method of domestic wastewater treatment in multiple family housing developments with seven or more units or any expansion of three or more units of an existing development or complex, that disperses effluent into subsurface soil

treatment/dispersal systems when domestic sewage flows are less than or equal to 3,000 gallons per day. Multiple family housing developments may include duplexes, quadplexes, motels, hotels, apartments, RV campgrounds and trailer parks. The WPP will provide copies of all residential housing developments approvals to the DCEE On-site Sewage Program and/or local administrative authority.

Existing residential housing developments shall be reviewed on a case by case basis to determine if the development requires approval under the residential housing development rule as described above.

Individual on-site wastewater treatment systems shall not be installed on any individual lot in a development that proposes or has been permitted for a centralized collection and treatment facility, unless, the facility owner has obtained a written waiver from the continuing authority of the centralized treatment facility, per 10 CSR 20-6.010(3)(B), and has received written approval from DNR for that method of wastewater treatment as described in 10 CSR 20-6.030 Disposal of Wastewater in Residential Housing Developments.

D. Cooperative Activities

Bypasses, non-permitted discharges, spills, and threatened spills from DNR regulated wastewater treatment facilities

1. DHSS

DCEE has the responsibility to evaluate the health risk of non-permitted sewage discharges, spills, or threatened spills and to cooperate in the issuance of health advisories, where appropriate. DCEE will perform risk assessments, provide toxicological evaluations, and conduct epidemiological studies when appropriate. This responsibility comes from Section 192.020, RSMo, which requires DHSS to safeguard the health of Missourians by investigating and preventing disease.

DCEE will notify WPP and/or DNR Regional Office after becoming aware of any DHSS regulated facility that appears to be in violation of the Clean Water Act. WPP and/or DNR Regional Office will work with DCEE to determine if a joint investigation is needed. WPP and/or DNR Regional Office will keep DCEE informed of the investigation and the disposition of the situation.

DCEE will notify DNR's EER twenty-four hour telephone hotline at (573) 634-2436 for sewage releases after 5:00 PM, on weekends and holidays. All other calls should go to DNR Regional Offices during normal business hours. WPP and/or DNR Regional Offices will keep DCEE informed of the investigation and the disposition of the situation.

DCEE will determine when they will advise appropriate local health departments of bypasses, non-permitted discharges, spills, and threatened spills.

DCEE will provide field support when needed in relation to actual or potential human exposure to sewage.

DCEE will, in cooperation with DNR and appropriate local public health agencies, issue health advisories and public information documents when the situation affects the public health.

2. **DNR**

DNR will notify DCEE of all spills and unauthorized discharges. WPP and/or DNR Regional Offices will copy DCEE on correspondence between DNR and DHSS regulated facilities.

There are cases where an observed bypass at a treatment facility may be an authorized discharge; therefore, not requiring reporting and response. The State of Missouri has several cities that have a combined sewer overflow (CSO) conveyance system for their municipal stormwater and wastewater. Generally, the CSO discharges occur during wet weather events and are permitted discharges from defined outfall locations, and therefore would not require reporting or DNR response. In the case of an unpermitted discharge in a CSO community, standard reporting and response procedures would be followed.

Service line breaks may pose a threat to public health or water quality if the resulting spill is significantly large. Most service line breaks are small and have only local impacts. As a matter of practice, when DNR becomes aware of such a spill, DNR notifies the responsible sewer operator of the condition and takes no further action.

DNR agrees to collaborate with DCEE on the release of public health advisories and other related public health information as appropriate.

In the case of actual or potential human exposure, ESP will provide DCEE with a copy of all corresponding laboratory reports.

Discharges or surfacing from on-site systems

DCEE will notify WPP and/or the DNR Regional Office Water Pollution Control Unit after becoming aware of sewage discharges from multi-family residences, small businesses or other DHSS regulated facilities if the discharges may reasonably be expected to enter waters of the state. WPP and/or DNR Regional Offices will determine with DCEE whether a joint investigation is needed. WPP and/or DNR Regional Offices will inform DCEE of the progress of the investigation and the disposition of the situation.

DCEE will notify WPP and/or the DNR Regional Office Water Pollution Control Unit after becoming aware of sewage discharges from single-family residences that may reasonably be expected to enter waters of the state. WPP and/or DNR Regional Office will work with the DCEE to determine if a joint investigation is needed. WPP and/or DNR Regional Office will keep DCEE informed of the investigation and the disposition of the situation.

WPP and/or DNR Regional Offices will notify DCEE when aware of sewage discharges from single-family residences, multi-family residences and businesses with flows less than or equal to 3,000 gallons per day. DCEE will keep WPP and/or DNR Regional Offices informed of the disposition of the situation.

On-site wastewater treatment system technologies

DCEE will request consultation with WPP, as appropriate, under Section 701.033.4, RSMo regarding the trial or experimental use of innovative systems for on-site wastewater treatment.

WPP will continue to coordinate with DCEE, as appropriate, under 701.033.4 regarding trial or experimental use of innovative systems for on-site wastewater treatment.

Underground Injection Control Program, Class V Well Inventory

DCEE will notify DGLS of any permit applications for on-site wastewater systems that receive effluent from multiple family developments or other establishments that serve 20 or more people per day with peak daily flows less than or equal to 3,000 gallons per day of domestic wastewater.

Financial assistance for decentralized wastewater treatment systems

DCEE and DNR will continue to work in cooperation with other stakeholders to implement a funding assistance program for the repair or replacement of malfunctioning individual single family on-site wastewater treatment systems. Both agencies will ensure that any program developed will be operated equitably and that Environmental Justice as defined by DNR is achieved.

DCEE and the FAC will continue to work together regarding jurisdiction, technical assistance, design review and permitting when decentralized (on-site and cluster) wastewater treatment systems are proposed for an underserved community and that community applies for financial assistance. Both agencies will ensure this is done equitably and that Environmental Justice as defined by DNR is achieved.

OTHER AREAS OF COORDINATION RELATED TO WATER QUALITY

Fish Advisory

A. Overview

DHSS annually issues a Fish Advisory for the consumption of sport-caught fish in Missouri. The fish tissue data collected by DNR is an important part of the information used to compose this advisory. This section of the MOU describes the specific responsibilities involved in this process.

B. General Authority

Under Section 192.011, RSMo, DHSS shall monitor the adverse health effects of the environment and prepare population risk assessments regarding environmental hazards including, but not limited to, those relating to water, air, toxic waste, solid waste, sewage disposal, and others. Under the same section, DHSS is to make recommendations to DNR for protecting public health as related to the environment. Under Section 192.020, RSMo, DHSS has primary responsibility for safeguarding the health of the people in the State.

DNR is authorized by the clean water law, to "encourage, participate in, or conduct studies, investigations, and research and demonstrations relating to water pollution and causes, prevention, control, and abatement thereof", by Section 644.026(5), RSMo. This would include monitoring for contaminants in fish tissue that may affect human health.

C. Roles and Responsibility

DHSS develops and releases an annual Fish Advisory. DHSS may provide input into the types of fish and locations to be sampled and make recommendations on the locations, fish and chemicals to be analyzed.

DNR will consider DHSS's input into its fish tissue monitoring plans. Once the monitoring and analysis have been completed, DNR will provide DHSS the results in a timely manner.

D. Cooperative Activities

DNR and DHSS will coordinate with each other and with the Missouri Department of Conservation (MDC) to discuss fish tissue monitoring plans and needs. This coordination will occur prior to preparation of sampling plans. Other meetings may be held during the course of the year if necessary.

303(d) Listing Methodology

Every two years, DNR prepares a list of impaired waters that require additional protection, known as the section 303(d) list. Prior to preparing this list, DNR creates a Methodology Document which guides the listing process in detail. The document describes what data is acceptable, how data for various parameters will be analyzed, and the statistical tools to be used. The methodology is developed in consultation with a variety of governmental and private stakeholders and is adopted by the Clean Water Commission. DHSS will be an active participant in this process, contributing to those portions of the methodology dealing with human health. DNR will consider DHSS's input.

Water Quality Standards

DNR is required to revise its water quality standards every three years. DNR will coordinate with DHSS in an inter-agency review of these proposed revisions. DNR will consider DHSS's input into the proposed revisions to state water quality standards that relate to human health protection.

Nonpoint Source Pollution

DCEE will assist DNR upon request with the review of applications for DNR Section 319 grants.

Section 4: Drinking Water

A. Overview

DNR and DHSS each have roles and responsibilities relating to water supplies. The mission of the DNR Public Drinking Water Branch is to ensure the provision of safe and adequate supplies of drinking water to the public and to safeguard groundwater supplies through the regulation of well drilling. DNR meets these responsibilities by regulating public water systems and the drilling and plugging of wells. Public water systems serve drinking water to at least 15 service connections or regularly serve at least 25 persons daily at least 60 days out of the year. They may be privately owned, such as convenience stores, or publicly owned, such as public water supply districts.

DHSS, in its mission to protect and safeguard the public, is concerned about the health of those who consume water. They regulate water supplies that serve facilities they regulate, provide instruction to regulated facilities about the use of water from public supplies, and provide advice and technical assistance to the public about water supplies.

In some instances (for example, certain child care facilities, restaurants, and convenience stores, and similar establishments) DNR and DHSS regulatory responsibilities overlap.

B. General Authority

1. DHSS

Under Section 640.100.3, RSMo (cum. supp. 2008), the Department of Natural Resources or the Department of Health and Senior Services (DHSS) shall, at the request of any water supplier, conduct any analyses or tests required pursuant to section 192.020 or the state statutes pertaining to the regulation of public water systems.

DHSS statutes and regulations require water supplies in lodging establishments (Section 315.024, RSMo), food establishments (19 CSR 20-1.025), food processing facilities (Sections 196.010 to 196.271, RSMo), and child care facilities (Section 210.252, RSMo) (hereafter "DHSS regulated facilities") to provide a safe drinking water supply. If these are public water systems, they must have a permit to dispense water and be in substantial compliance with the safe drinking water law and regulations. Private (non-public) water supplies serving DHSS regulated facilities must meet minimum construction and water quality standards set by DHSS.

DHSS has the responsibility to investigate and prevent disease under Section 192.020, RSMo including the inspection and sampling of private wells upon request, and the issuance of Boil Orders when necessary to safeguard the health of the people of Missouri.

DHSS as per Section 192.011, RSMo monitors for adverse health effects and

prepares population risk assessments regarding environmental hazards from water supplies and other environmental sources. DHSS makes recommendations to DNR for the improvement of public health as related to the environment.

2. DNR

Under Section 640.100.3, RSMo (cum. supp. 2008), the Department of Natural Resources or the Department of Health and Senior Services (DHSS) shall, at the request of any water supplier, make any analyses or tests required pursuant to section 192.020 or the state statutes pertaining to the regulation of public water systems.

DNR Public Drinking Water Branch (PDWB) has the responsibility and authority to administer, implement, and enforce the Missouri safe drinking water statutes (Sections 640.100-640.140, RSMo) and associated regulations (10 CSR 60- 1.010-16.030). This includes setting and enforcing standards for maximum contaminant levels, treatment techniques, disinfection, and public water system construction, as well as permitting, operator certification, backflow, and public notice requirements.

DNR has the responsibility to make and enforce regulations pertaining to well drillers and well construction standards under Sections 256.600-256.640, RSMo and 10 CSR 23-1.010 to 23-1.160.

3. Other

Neither agency has authority to regulate water supplies for private residences, except that DNR regulates the construction of new wells under certain circumstances and the plugging of abandoned wells. However, DHSS will offer advice and technical assistance to citizens about existing private water supplies or laboratory sample test results of these water supplies as requested. The DHSS State Public Health Laboratory (SPHL) will provide testing of water supplies for owners of non-public water systems.

C. Roles and Responsibility

1. DHSS

DHSS is responsible for providing microbiological analyses of public water supplies. DHSS will normally provide chemical and microbiological analysis for private water supplies.

DHSS shall provide at least one SPHL staff member to serve as the Laboratory Certification Officer (LCO) / Microbiology Program Manager for the Drinking Water Microbiology Laboratory Certification Program administered by the DNR PDWB. This laboratory certification program is administered under the provisions of the U.S. EPA Manual for the Certification of Laboratories Analyzing Drinking Water: Criteria and Procedures, Quality Assurance (MCLADW), Fifth Edition, 2005, EPA publication 815-

R-05-004. The Director of the DNR PDWB serves as the Certifying Authority (CA) for this program.

The LCO / Microbiology Program Manager will be responsible for the following:

- Meet the requirements for and perform the functions of the LCO and Program Manager positions as described in the MCLADW.
- Perform triennial on-site evaluations (audits) of certified drinking water microbiology laboratories in Missouri.
- Perform on-site evaluations (audits) of laboratories requesting certification for the first time.
- Perform reviews of certification documents from out-of-state laboratories requesting reciprocal certification in Missouri.
- Provide written evaluation reports to the DNR PDWB and make recommendations regarding the certification status of evaluated laboratories.
- Maintain records of each certified laboratory, including triennial evaluation reports, written responses, DNR PDWB certification documents (certificates and parameter lists) and annual proficiency testing reports.
- Provide technical assistance and training to laboratories to ensure they meet the requirements for certification.
- Work with US EPA Region 7 and DNR PDWB staff to ensure the Drinking Water Microbiology Laboratory Certification Program meets all federal and state requirements for the program.

DHSS will actively support DNR's efforts to seek renewal of the public drinking water primacy fee.

The DHSS State Public Health Laboratory will work with DNR to develop new procedures to provide DNR with results of tests of private water supplies. This is expected to include a mechanism for distinguishing between samples from domestic and multifamily wells where possible and reporting well locations to the extent practical.

DHSS Bureau of Environmental Public Health Services (BEHS) will as soon as practically possible but no later than 24 hours after becoming aware of the event, notify the PDWB and the appropriate DNR regional offices of possible waterborne disease outbreaks and investigations (excluding investigations involving only routine chemical sampling) related to public water systems. If this notification occurs outside of normal business hours, the notification will be made to the EER emergency response hot-line (573-634-2436). BEHS will collect samples, as needed, from public water supplies as part of investigations of possible waterborne disease outbreaks.

The BEHS will notify the appropriate DNR regional office within one (1) working day of all unsafe water samples from DHSS regulated facilities on public water systems or when cross connections with other water systems are observed.

BEHS will assure that DHSS regulated facilities with an unsafe water supply implement interim measures protective of public health until permanent corrective actions have restored a safe water supply. BEHS will follow established procedures to move to enforcement actions up to and including closure of establishments that do not implement prescribed interim measures or progress towards permanent corrective action. More detailed information about potential interim measures is available in the program portions of DHSS's Environmental Health Operational Guidelines (EHOG). BEHS or the LPHA will also follow DHSS guidelines related to posting appropriate notices within DHSS regulated facilities to protect public health.

BEHS will issue boil water orders or limit use orders to DHSS regulated facilities using private water supplies as per program standards. BEHS will assure that new facilities using private water supplies will comply with applicable program standards.

BEHS directs LPHA's to routinely collect water samples from all DHSS regulated facilities utilizing private and non-community public water supplies. This sample is to add validity to the routine samples submitted by the establishment by having a sample collected by a public health professional.

The Bureau of Environmental Epidemiology (BEE) will collect samples as needed from public water supplies to monitor for chemical contamination.

BEHS will assure new DHSS regulated facilities utilizing public water supplies will not be approved to operate without having a permit to dispense water (or having a written compliance plan with DNR) and being in substantial compliance with safe drinking water law and regulations.

BEHS will work with local public health agencies (LPHA's) when notified by DNR Regional Offices of a boil water order or boil water advisory, or limit use orders determined by DHSS to be of public health significance. The LPHA will contact the regulated facilities that are using the affected water system if their continued operation without interim measures might pose a risk to public health.

BEHS will notify the appropriate DNR regional office when there is a need for them to determine if the water supply serving a regulated facility is a public water supply.

2. DNR

DNR/PDWB is the agency responsible for issuing boil water orders or other orders limiting the use of potable water from public water supplies. DNR and DHSS boil water order procedures can be found in the *Drinking Water: Boil-Water Orders Manual.*

PDWB will notify the DHSS BEHS Bureau Chief and the appropriate DNR regional office before release orders or advisories are lifted. If these notices are in response to chemical contaminants, the Bureau Chief of BEE will also be notified. These notifications may be made by an email to the "Boil Order Notification Group" in normal situations; direct contact will be made when appropriate.

PDWB will make available to BEHS and BEE data on public water systems in noncompliance with microbiological, chemical and other standards of the safe drinking water law and regulations.

DNR will contact the public water system officials of boil water orders, boil water advisories and limit use orders and arrange for notice to the news media

DNR will assure that whenever a non-community water system has an acute violation, as defined in 10 CSR 60-8.010(2)(A), and/or an initial detection of E. coli, the facility owner/operator will immediately post a public notice prominently on all doors providing entrance to the facility warning the public that the water is unsafe. The system will continuously post this notice throughout the duration of the event.

Water system owners who desire to begin adding fluoride are required to submit engineering plans and specifications to PDWB for review and approval. PDWB staff inspects fluoridation installations as part of their routine operation and maintenance inspections of public water systems and may conduct final inspections of fluoridation installations in accordance with Regional Office Work Plan guidelines. DNR routinely provides fluoride monitoring data from public water systems to the DHSS Office of Primary Care and Rural Health.

If DNR becomes aware of a potential waterborne disease outbreak, they will as soon as practically possible, but no later than twenty-four hours after becoming aware of the event, notify the bureau chief of the DHSS Bureau of Communicable Disease Control and Prevention and the bureau chief of BEHS. After hours, notification from DNR will be made to the DHSS department situation room 1-800-392-0272.

The DNR PDWB Wellhead Protection Section will furnish the BEHS with copies of registrations for private and non-community public wells that serve DHSS regulated facilities when requested.

DNR will give operators of non-community water systems serving DHSS regulated facilities instructions on actions to be taken (such as installation of treatment systems) after a water sample from these supplies tests positive for bacterial, chemical or other contaminants.

DNR is responsible for providing chemical analyses of public water supplies. St. Louis County Environmental Health Laboratory is designated by DNR as the "Primacy" lab for radionuclide analyses of samples from public water systems.

DNR will seek renewal of the public drinking water primacy fee pursuant to its legislative authority under Section 640.100.5, RSMo (cum. supp. 2008). The statutory purpose of the primacy fee is to ensure the primacy agency has sufficient funding to comply with federal requirements for maintaining the primacy of state enforcement of the federal Safe Drinking Water Act.

DNR regional offices will expeditiously make a determination as to whether or not the water supply of a DHSS regulated facility constitutes a public water system when such determination is requested. Reasonable efforts will be made to verify the accuracy of information received from these facilities used to make this determination. This may involve joint visits to the facility by DNR and DHSS regional staff / LPHA staff.

DNR's Environmental Services Program laboratory may conduct chemical analysis of samples from private water supplies when necessary to support the activities of other environmental programs in DNR.

D. Cooperative Activities

The agencies will work cooperatively to prepare and disseminate information releases to the public in response to emergency situations such as floods and other natural or manmade disasters where private and public water supplies may have been affected. Each agency will ask the other to review and comment on information before it is released. The agencies will conduct these reviews expeditiously. Information reviewed after the effective date of this MOU that is to be used on subsequent similar events, if the information is unchanged, need not be reviewed again.

When necessary, DHSS and DNR staff will meet and share information on new technology related to drinking water treatment, purification, or filtration. They will provide informational releases to the industry and the public at large on accepted methods, practices, and technology for the provision of safe drinking water. This will ensure a consistent message from both agencies regarding these technologies.

Appropriate DHSS, BEHS and DNR programmatic and Regional staffs will keep each other informed on the status of enforcement activities related to water violations including issuance of notices of violation and closure of regulated facilities served by a non-community water supply.

Each agency will share information about water supplies where chemical contaminants have been detected, but do not exceed health-based thresholds. DNR’s quarterly monitoring data from these public water supplies will be shared with DHSS personnel.

Each agency agrees to send Branch or Bureau level staff to quarterly meetings to discuss issues relating to water supplies.

Each agency agrees to conduct joint investigations of potential public water supply contamination whenever a PWS is thought to be a contributing factor to public health concerns. This will be through the sharing of locations of health concerns to ensure that DNR and DHSS staff can develop and implement an aggressive sampling plan to quickly and decisively determine if the PWS is involved. DHSS staff shall develop the sampling locations and make arrangements for entry to properties and DNR staff shall be responsible for taking and delivery of samples to the state laboratory for analysis.

DHSS conducts epidemiologic studies when routine surveillance or citizen concerns indicate that further investigation may be indicated. Citizens may contact DHSS or DNR with their concerns. When DNR is contacted, they should report these concerns to DHSS Bureau of Environmental Epidemiology. DHSS will investigate the concern, then notify DNR of the results of that investigation. In cases where it appears that disease rates related to the concern are greater than expected, DHSS and DNR will collaborate on sampling and other actions. When disease rates cannot be shown to be greater than expected, DHSS and DNR will collaborate to determine whether sampling is appropriate or not. If sampling is conducted, results will be shared between both agencies.

Section 5: Solid, Infectious, and Pharmaceutical Waste

Solid Waste

A. Roles and General Authority

1. DHSS

Authority for regulating solid waste storage is the responsibility of DCEE under Chapters 315, RSMo and 196, RSMo relating to lodging and food handling establishments.

2. DNR

Regulation of the disposal and treatment of solid waste is the responsibility of DNR Solid Waste Management Program (SWMP) and/or DNR regional offices and is regulated by Sections 260.200-260.345, RSMo and associated DNR rules.

B. Cooperative Activities

1. DHSS

DHSS agrees that DCEE will refer possible violations of solid waste statutes and rules to SWMP and the appropriate DNR regional office. These staff will also provide consultation to SWMP or DNR regional offices on solid waste problems related to insect and rodent control.

DCEE will conduct investigations of actual or suspected health effects possibly related to solid waste processing and disposal upon DNR's request as soon as possible.

2. DNR

DNR agrees that SWMP and the DNR regional offices will provide DCEE with technical advice on solid waste management upon request and as soon as possible. They will also investigate possible violations referred to them by DHSS staff as soon as possible.

Infectious Waste

A. Roles and General Authority

DHSS Division of Regulation and Licensure (DRL) is responsible for regulating infectious waste management and disposal in hospitals (Section 260.203, RSMo and 19 CSR 30-20.070, 19 CSR 30-22.030, and 19 CSR 30-24.040).

DNR SWMP is responsible for regulating the management, transport, and disposal of infectious waste for all entities except for on-site management by hospitals under Section 260.203, RSMo, 10 CSR 80-5.010, and 10 CSR 80-7.010.

Joint Responsibilities: DRL and SWMP are jointly responsible for reviewing requests by hospitals for approval to accept infectious waste from small quantity generators and other Missouri hospitals (Section 260.203, RSMo, 10 CSR 80-2.010 (46) and (47), and 10 CSR 80-7.010). APCP is responsible for regulating the emissions from and permitting requirements of incineration of infectious waste (Chapter 643, RSMo). The SWMP is also responsible for permitting requirements of infectious waste incinerators

B. Cooperative Activities

1. DHSS

a. DHSS agrees that DCEE will provide SWMP with technical advice on possible health effects of infectious waste.

b. DRL will coordinate infectious waste activities closely with SWMP. DRL agrees to notify SWMP or APCP of possible violations of DNR statutes and rules.

c. DRL also agrees to investigate all complaints involving management of infectious waste in hospitals under DRL jurisdiction.

d. DRL will coordinate the review of requests by hospitals for approval to treat infectious waste from small quantity generators and other Missouri hospitals with the SWMP. DRL will notify SWMP within 10 days of receipt of a hospital's request for approval to accept infectious waste from off-site. If SWMP has not received the hospital request within 10 days, SWMP will send written notification to the hospital that the request to accept such waste for treatment must be sent by certified mail to both DRL and SWMP.

   Review of the submitted information will result either in an approval or denial of the request. If the information submitted does not comply with DHSS requirements, DRL will deny the hospital request to accept infectious waste from off-site. If the information submitted complies with DHSS requirements, DRL will approve the hospital request to accept infectious waste from off-site, contingent upon DNR's concurrence.

   As required by Section 260.203.9, RSMo, DRL will respond in writing to each request by a hospital for approval to accept off-site infectious waste with either an approval or a denial within ninety days of receipt of such request. DRL will send SWMP copies of correspondence with hospitals regarding the approval process.

   DHSS/DRL has the following responsibilities in approving or denying requests from hospitals to accept off-site infectious waste for treatment:

- Approval of storage, processing, record keeping, and training requirements;
- Approval of treatment method, including equipment specifications and operating procedures as required in DHSS' regulations;
- Approval of the total quantity of infectious waste to be accepted at a hospital offsite;
- Approval of requests to add other small quantity generators and Missouri hospitals to an existing approval when there is question about compliance with DHSS' offsite quantity restrictions; and
- Arrange site visits of hospitals that are not permitted infectious waste processing facilities upon request by DNR staff.

e. DRL will forward all inquiries concerning incineration of infectious waste to APCP and provide a list of medical waste incinerators to APCP for permit determination.

2. DNR

a. DNR agrees that SWMP and APCP will provide DRL with technical assistance on infectious waste treatment and disposal.

b. SWMP and APCP will coordinate their infectious waste management activities closely with DRL, especially the promulgation of solid waste and air pollution rules on infectious waste treatment, disposal and air emission requirements.

c. SWMP staff will notify DRL within one week of any complaint involving management of infectious waste in a hospital.

d. APCP agrees to notify DRL of any requests from hospitals to build and/or operate an infectious waste incinerator within 20 days of the application.

e. SWMP will coordinate the review of requests by hospitals for approval to treat infectious waste from small quantity generators and other Missouri hospitals with DRL. SWMP will notify DRL of receipt of a hospital request within 10 days of receipt of a hospital's request for approval to accept infectious waste from off-site. If DRL has not received the hospital request within 10 days, DRL will send written notification to the hospital that the request to accept such waste for treatment must be sent by certified mail to both SWMP and DRL.

   Review of the submitted information will result either in an approval or denial of the request. If the information submitted does not comply with DNR's requirements, SWMP will deny the hospital's request to accept infectious waste from off-site. If the information submitted complies with DNR's requirements,

SWMP will approve the hospital's request to accept infectious waste from off-site, contingent upon DHSS concurrence.

As required by Section 260.203.9, RSMo, SWMP will respond to each request in writing by a hospital for approval to accept off-site infectious waste with either an approval or a denial within ninety days of receipt of such request. SWMP will send DRL copies of all correspondence with hospitals regarding the approval process.

DNR SWMP has the following responsibilities in approving or denying requests from hospitals to accept off-site infectious waste for treatment:

- approval of the sources of infectious waste accepted at the hospital (only small quantity generators and other Missouri hospitals);
- approval of packaging, tracking, transportation, and disposal requirements for infectious waste taken to a hospital for treatment;
- approval of the method of disposal for treated infectious waste, including any residue from the treatment process; and
- referral of an applicant to DNR's APCP or WPP, as applicable, to ascertain any Missouri Air Conservation and/or Clean Water Law requirements for the hospital.

f. DNR may conduct site visits of hospitals to determine compliance with the Missouri Solid Waste Management Law and implementing regulations. DNR personnel will coordinate or arrange for site visits of hospitals that are not permitted infectious waste processing facilities with DRL.

g. In the event an environmental emergency occurs involving infectious waste, the first point of contact shall be DNR's Environmental Emergency Response (EER) section at (573) 634-2436. If warranted, EER will arrive on-site, assess the situation, document site conditions, and coordinate subsequent actions with the SWMP.

h. DNR will defer to the lead law enforcement agency if the lead law enforcement agency plans to pursue criminal charges. At no point in time will DNR be responsible for holding evidence or securing a site for evidence purposes. This responsibility falls under the jurisdiction of the lead law enforcement agency.

i. During active investigations involving infectious waste, coordination shall occur among DRL, DCEE, SWMP and APCP in order to achieve compliance with Missouri's laws and regulations.

Pharmaceutical (or Medication) Waste

A. Roles and General Authority

1. DHSS

Medication waste is regulated under the provisions of this agreement that govern solid waste, infectious waste, hazardous waste and radiologic waste when medication waste is applicable to those categories. DHSS currently regulates medication waste as part of medication management by licensed entities under the following rules:

19 CSR 30-20.100 Hospitals

19 CSR 30-30.020 Ambulatory Surgical Centers

19 CSR 30-26.010 Home Health Agencies

19 CSR 30-35.020 Hospice Facilities

19 CSR 30-35.010 Hospice Programs

19 CSR 30-85.042 Intermediate Care and Skilled Nursing Facilities

19 CSR 30-86.042 Residential Care Facilities

19 CSR 30-86.043 Residential Care Facilities II

19 CSR 30-86.047 Assisted Living Facilities

19 CSR 20-50.030 Prescription Drug Repository Programs

19 CSR 30-1.078 Controlled Substances

2. DNR

Regulation of the disposal of non-hazardous medication waste is the responsibility of the SWMP under Section 260.210, RSMo. The DNR Hazardous Waste Program (HWP) regulates those medication wastes which are listed or characteristic hazardous wastes under Section 260.360(11), RSMo.

B. Cooperative Activities

1. DHSS

DHSS encourages all licensed entities to develop thorough policies and procedures for disposal of medication waste specific for the following categories: hazardous waste, infectious waste, radiologic waste, controlled substances and general

medication waste not included in other categories, when these categories are applicable to the licensed entity. Such policies and procedures should include identification of all medications with special handling requirements for collection, clean up of spills and storage, and specific waste streams for each category.

DHSS will conduct investigations of actual or suspected health effects possibly related to improper pharmaceutical waste disposal at healthcare facilities upon DNR's request as soon as possible.

DHSS recognizes specific requirements for disposal of hazardous medication waste regulated by EPA and OSHA and encourages compliance by all DHSS licensed entities.

DHSS recognizes recommendations from FDA and the White House Office of National Drug Control Policy (ONDCP) for consumer disposal of household medication waste and encourages compliance by consumers and DHSS licensed entities when applicable.

2. DNR

DNR recognizes the potential scientifically-established impact of medication waste to aquatic organisms in state and national waterways. In addition, emerging studies are documenting the presence of medication waste and personal care products in waterways, with potential impacts to humans as well. Therefore, DNR believes and recommends that medication waste should be incinerated or properly land disposed in most instances.

SWMP agrees to provide technical guidance to DHSS, as requested, regarding proper disposal of non-RCRA medication waste. DNR HWP agrees to provide technical guidance to DHSS, as requested, regarding proper disposal of hazardous medication waste.

DHSS and DNR agree to convene an interagency workgroup to review this issue and to determine whether new recommendations may be appropriate for the disposal of medication waste in a manner that is more protective of human health and the environment, but not burdensome to the public and regulated entities.

DNR will investigate possible violations referred to them by DHSS staff as soon as possible.

Section 6: Radiological Emergency Response

A. Overview

The Department of Health and Senior Services (DHSS), the Department of Natural Resources (DNR), and the Department of Public Safety (DPS) recognize the need for radiological emergency response planning, and the need for prompt, effective, and coordinated response actions to protect the people and resources of the state in the event of a radiological incident. Each agency has statutory responsibility in this regard. Each agency has developed programs and professional competence to meet those responsibilities and are committed to cooperative efforts to ensure appropriate actions to protect public health and safety and the environment.

B. General Authority

1. DHSS

Responsibilities of DHSS, with respect to radiation protection, are outlined in Chapter 192, RSMo 1986. Section 192.510 requires DHSS to respond to all radiation emergencies and to coordinate its emergency plans and actions with DNR and DPS. Those functions are performed by DHSS, Radiological Emergency Program (REP).

2. DNR

Article IV of the Missouri constitution designates DNR as the agency responsible for environmental control. Sections 260.500 through 260.550, RSMo and associated state regulations provide DNR the authority to be notified and respond to hazardous substance incidents, which may include radiological incidents. Those functions are performed by the DNR, Environmental Emergency Response (EER) Section.

3. SEMA

The responsibilities of the State Emergency Management Agency (SEMA) within DPS are defined in Chapter 44, RSMo 1986, and are further addressed in the Missouri Nuclear Accident Plan. This agency develops state plans, coordinates plans and activities of other state and local agencies, and provides guidance to local authorities.

C. Roles and Responsibility

1. DHSS

If there is a risk to health or safety, DHSS, REP will serve as the lead agency in subsequent public health actions. The DHSS, REP will follow its Standard Operating Procedures for radiological emergency response operations to assist in making decisions regarding radiological emergencies.

2. **DNR**

   If there is no risk to health or safety, but a threat to the environment, DNR, EER will assume the lead role for cleanup oversight. The DNR, EER will refer to Sections 2, 4, and 37 of its Hazardous Substance Emergency Response Plan (HSERP), which is an appendix to Annex N of the State of Missouri Emergency Operations Plan to assist in making decisions regarding radiological emergencies. If a longer-term remediation is required, oversight of the cleanup will transition to staff within the DNR, Hazardous Waste Program, who will coordinate with DHSS, REP on appropriate cleanup levels.

3. **Joint Responsibilities**

   DNR, EER and DHSS, REP will coordinate a response to a potential radiological incident based upon all information available. Collection and analysis of samples will be coordinated between DNR and DHSS. SEMA may provide additional resources as necessary to facilitate an effective response to a radiological incident and serve as liaison with other agencies.

D. Cooperative Activities

Each agency agrees to notify the other per Section 2 of this MOU. Additionally, the SEMA Duty Officer will be notified of any radiological incident at (573) 751-2748 by the agency initially aware of the incident.

Emergency response will continue to be a cooperative effort of DHSS, DNR, and DPS. An appropriate response to a radiation emergency could require commitments of personnel, time and resources by all three departments. Each, at the request of another, will provide such assistance as can be made available.

Agencies will conduct joint training/exercises for radiological response activities on a regular basis.

Section 7: Hazardous Waste/Substances

A. Overview

The purpose of this section is to define the activities that the Missouri Department of Health and Senior Services (DHSS) and the Missouri Department of Natural Resources (DNR) conduct in protecting public health and the environment from hazardous wastes and substances and to define the manner in which DHSS and DNR will coordinate their efforts and assist one another to ensure activities are effective and time and cost efficient.

This section provides a common understanding of the responsibilities of DHSS and DNR concerning the investigation, assessment, and control of hazardous substances, which include hazardous wastes, in the environment. This section also outlines the relationship between DHSS and DNR pertaining to the assessment of health effects of hazardous substances in the environment.

The specific DHSS and DNR divisions, sections, bureaus, and units covered by this section are as follows:

DHSS: Section for Disease Control and Environmental Epidemiology (DCEE) and Bureau of Environmental Epidemiology (BEE)

DNR: Division of Environmental Quality (DEQ), Hazardous Waste Program (HWP), Environmental Services Program (ESP), Environmental Emergency Response Section (EER), Brownfield Voluntary Cleanup Program (BVCP), Tanks Section, Federal Facilities Section, Superfund Section, Enforcement Section, and Permits Section

The goals of this section are to define the DHSS and DNR roles, responsibilities, cooperative actions, and agreements related to the protection of human health and the environment from risks posed by hazardous substances in the environment.

B. General Authority

1. DHSS

DHSS has primary responsibility for safeguarding the health of the people of Missouri (Section 192.020, RSMo). Under sections 260.445.5 and 260.391.1(2), RSMo, DHSS is to evaluate the effects to human health of abandoned or uncontrolled hazardous waste sites and of releases of hazardous substances as defined in Section 260.500, RSMo. These evaluations can include immediate investigatory responses to actual or potential environmental contamination and

advice to DNR and other regarding appropriate remedial actions to reduce, control, or eliminate health hazards. In addition, DHSS is responsible for evaluating the human toxicity and assessing the risk to people from exposure(s) to all types of hazardous substances in the environment. The evaluation process may include conducting epidemiological studies to identify trends in diseases related to hazardous substance exposure.

Section 192.011, RSMo requires DHSS to monitor adverse health effects of the environment and prepare population risk assessments regarding environmental hazards including, but not limited to, those relating to air, water, soil, toxic waste, solid waste, sewage disposal, and others. DHSS is to make recommendations to DNR for improvement of public health as related to the environment.

Per 10 CSR 25-7.264(2)(P) of the Code of State Regulations, DHSS is responsible for the technical review and approval of all health profiles prepared as part of a hazardous waste treatment or disposal facility permit application to DNR. DNR should consult with DHSS regarding appropriate information to be included in a health profile, and to determine when additional epidemiological investigations might be warranted or required.

2. DNR

The DNR HWP is responsible for the supervision and enforcement of the Missouri Hazardous Waste Management Law, Sections 260.350 – 260.482, RSMo, as well as the laws found at Sections 260.566 – 260.575, RSMo (BVCP), Sections 260.900 – 260.960, RSMo (dry cleaners), and Sections 319.100 – 319.137, RSMo (petroleum storage tanks). This includes all related standards and rules and the terms and conditions of orders, permits, and licenses adopted or issued thereunder for active and closed Resource Conservation and Recovery Act (RCRA) hazardous waste management and disposal facilities; Brownfield Voluntary Cleanup Program sites; petroleum underground and above ground storage tanks; Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) sites; and federal facilities. In addition, the HWP is responsible for the investigation of abandoned and uncontrolled hazardous waste sites, maintenance of a registry of confirmed abandoned and uncontrolled hazardous waste sites ("the Registry"), and the preparation of an annual report of sites on the Registry.

DNR's ESP-EER is responsible for ensuring the protection of public health and the environment from hazardous substance emergencies in accordance with Sections 260.500 – 260.550, RSMo.

C. Roles and Responsibilities

1. DHSS

a. In general, DHSS is responsible for risk assessment, which is the process used to quantitatively or qualitatively estimate and characterize the probability of adverse effects occurring as a result of physical, chemical, radiological, or biological contamination.

b. DHSS will maintain expertise in the areas of risk assessment, radiation assessment, site characterization related to exposure pathway identification, toxicology, and other areas applicable to environmental public health.

c. DHSS-BEE will provide health assessments to DNR-HWP for each site included on the Registry. These Registry health assessments will be reviewed at least annually and updated as warranted.

d. In addition, DNR-HWP may request DHSS-BEE to provide health assessments at other sites, review analytical sample results, or evaluate environmental issues that are under DNR-HWP purview. Assessments provided by DHSS-BEE may take the form of quantitative risk assessments, semi-quantitative or qualitative public health assessments or health consultations, or other public health technical assistance. The type of health assessment will be determined on a case-by-case basis in consideration of factors such as schedule, complexity, the potential for public exposure to hazardous substances, and other factors.

e. Whenever appropriate, DHSS will cooperate with ESP-EER to conduct health assessments for sites where ESP-EER takes action to abate a hazardous substance emergency or to cleanup a hazardous substance release.

f. DHSS will collect drinking water samples from private wells to assess for exposure to hazardous substances. Sample analysis may include bacteriological, chemical, or radiological contaminants. Occasionally, DHSS may collect and test tap water at residences or businesses connected to public water supplies in order to assess exposure to substances that may occur within the water distribution system. DHSS will provide drinking water sample results to DNR-HWP as appropriate for further investigation into of a known or potential environmental source of water contamination.

g. Upon the request of the DNR-HWP, DHSS-BEE may schedule routine private drinking water well sampling from areas at or near known hazardous substances sites to monitor for changes in human exposure potential or migration of contaminants. The number of samples, monitoring period, and costs related to such activities will be determined cooperatively by DHSS-BEE and the appropriate DNR-HWP staff. Sample results will be provided to the private individual and to DNR-HWP.

h. DHSS will consult with and advise the DNR-HWP and hazardous waste permit applicants regarding the health profile component of the permit application. DHSS will assist applicants with obtaining data in DHSS possession that might be relevant to development of a health profile. DHSS may charge the applicant for this assistance and data. DHSS is responsible for reviewing and approving each health profile submitted as part of a permit application. As warranted, DHSS will assist the DNR-HWP with revising the health profile rules.

i. When DHSS-BEE plans environmental public health activities at or in the vicinity of a site known to them as being addressed by DNR-HWP, DHSS-BEE will notify the appropriate DNR-HWP personnel prior to the site visit. When necessary, DHSS-BEE may request the site visit be maintained confidential. If DHSS-BEE discovers during or after the site visit that they are or were working on a site that is, or is very near, a site being addressed by DNR-HWP, DHSS-BEE will notify the appropriate DNR personnel as soon as practical.

2. DNR

a. In general, DNR is responsible for risk management, which is the weighing and selecting of options and the implementation of controls to assure an appropriate level of protection to human health and the environment from physical, chemical, radiological, or biological contaminants. Risk assessment is one of many tools used in the risk management process.

b. DNR ESP-EER will respond to hazardous substance emergencies and/or direct other entities in responding to such emergencies in order to protect human health and the environment. DNR will consult with DHSS regarding such emergencies as warranted.

c. DNR-HWP shall provide oversight of investigations and risk management at sites under its authority. Such management shall be for the purposes of ensuring adequate human health and environmental protection and for compliance with all applicable laws and rules. DNR's management activities shall include, but not necessarily be limited to, the review of plans, reports, and other documents; conducting site visits, site inspections, site investigations, and sampling events; consulting with site owners; and other activities necessary to ensure actions at a hazardous substance site are appropriate, accurate, and protective. Oversight or development of risk assessment at sites will be provided by DHSS, or cooperatively by DNR and DHSS under their respective independent authority.

d. DNR staff shall regularly evaluate sites for placement on the Registry, conduct annual reviews of all sites on the Registry, provide oversight of entities that wish to cleanup Registry sites, produce an annual Registry report, and conduct all other activities required to ensure Registry sites do not pose unacceptable risk to human health or the environment. DNR will provide information on Registry sites to DHSS so that DHSS can assess human health risks associated with the sites. In

addition, DNR will include DHSS as a voting member of the Hazardous Waste Registry Site Assessment Committee.

e. DNR shall process and otherwise evaluate all applications for hazardous waste treatment, storage, and disposal facilities and provide ongoing oversight of hazardous waste management activities, including the investigation and remediation of hazardous waste releases to the environment, at all permitted facilities.

f. DNR shall work to ensure businesses, industry, and the general public comply with laws and rules pertaining to hazardous waste, polychlorinated biphenyls (PCBs), and petroleum storage tanks.

g. DNR will provide oversight and review of investigations, assessments, and remediation of hazardous substances at federal facilities in Missouri.

h. DNR will conduct and oversee the investigation and cleanup of contamination subject to the federal CERCLA and associated state laws and rules. In this capacity, DNR will cooperate with the federal Environmental Protection Agency (EPA), DHSS, and other federal, state, and local entities as well as private parties in the investigation, assessment, and remediation of contaminated property.

i. DNR will conduct and oversee investigations, assessments, and corrective action at petroleum storage tank release sites. In this capacity, DNR will work with tank owners and operators and other responsible parties, the Petroleum Storage Tank Insurance Fund, the Missouri Department of Agriculture, EPA, DHSS, and other parties to ensure contamination resulting from the operation of petroleum storage tanks does not pose unacceptable risk to human health or the environment. In accordance with section D.2.b of this section, oversight of risk assessment at sites will be provided by DNR, in cooperation with DHSS, under the independent authority of each agency.

j. DNR will conduct and/or oversee risk-based investigations, site assessments, and cleanups at sites eligible for participation in the Brownfield Voluntary Cleanup Program. In this capacity, DNR will work with participating parties and local, state, and federal entities, including DHSS, as well as other parties to ensure the property is safe for its intended use and the environment. In accordance with section D.2.b of this section, oversight of risk assessment at BVCP sites will be provided by DNR, in cooperation with DHSS, under the independent authority of each agency.

k. DNR will work with the public; business and industry; local, state, and federal elected officials; and other local, state, and federal governmental entities to develop laws, rules, and guidance to ensure hazardous wastes are appropriately managed and disposed of and to investigate, assess, and remediate releases of

hazardous substances to ensure human health and the environment are adequately protected from risks posed by such substances.

D. Cooperative Activities

1. DHSS

a. DHSS may conduct site visits for the purposes of gathering information to develop Registry health assessments for provision to DNR. When DHSS determines a field visit is warranted, DHSS will work with the appropriate DNR personnel to arrange for the visit. DNR will cooperate with DHSS in this regard and, when necessary or advantageous, DNR staff will accompany DHSS staff during the visit.

2. DNR

a. **Information to be provided by DNR to DHSS:** For actual and potential Registry sites, the HWP will provide DHSS with copies of off-site identification forms; preliminary risk assessments; site inspection reports; Hazard Ranking System evaluations, including worksheets; and all Registry updates. DNR will provide site updates and inspection reports to DHSS at least 90 calendar days before annual Registry health assessments are due to DNR.

When DHSS has notified DNR of the discovery of contamination in a private well or public water system as per section C.1.f. above, DNR will inform DHSS of the results of DNR's follow-up investigation(s) and other actions related to the contamination in a timely manner.

b. **Requests for DHSS assistance:** DNR requests to DHSS shall include reference to this MOU and the Cooperative Agreement. Requests will generally be made by one of the following DNR-HWP sections: Brownfield Voluntary Cleanup Program, Tanks Section, Permits Section, Federal Facilities Section, or Superfund Section.

DNR will request that DHSS review the quality and quantity of health-related information within certain documents, such as site investigation reports and sampling reports. In addition, DNR will request that DHSS review site-specific Tier 3 risk assessment proposals and reports developed in accordance with the Missouri Risk-Based Corrective Action guidance and rule or the Missouri Risk-Based Process for Petroleum Storage Tanks guidance.

DNR may request that DHSS provide testimony before the Hazardous Waste Management Commission (HWMC) during public meetings and hearings

concerning the health effects of hazardous substances at uncontrolled hazardous waste sites, permitted hazardous waste sites, and tank sites. In addition, DNR may request that DHSS provide testimony before the HWMC at public hearings pertaining to proposed DNR rules.

DHSS will cooperate and coordinate with DNR with regard to risk assessment guidance and policy review and development, in particular with respect to DNR's Risk-Based Corrective Action processes. DNR will consider DHSS's comments and, as appropriate and feasible, incorporate the comments into the RBCA guidance or rules.

On an as-needed basis, DNR will make requests of DHSS for other health-related information or assistance.

DNR requests requiring a written response from DHSS shall include a reasonable time for completion, generally 30 calendar days from receipt of the request by DHSS. If DHSS requires additional time, DHSS will contact the appropriate DNR personnel to explain the situation and the additional time required.

When DNR requests DHSS review of documents or data developed using a specific computer model or other software, DNR will provide DHSS with the appropriate software, documentation, spreadsheets with formulas, and other information, as needed, relevant to the DNR request. DNR may request that DHSS review the models, spreadsheets, and other information to determine whether they are appropriate in light of site conditions and, if so, whether the models were applied appropriately and accurately.

c. **ESP-EER Report:** DNR will routinely provide Hazardous Substance Emergency Events Surveillance reports to DHSS.

3. **DNR and DHSS**

a. DNR and DHSS agree to inform the other as soon as practical regarding independent decisions made or actions taken that may reasonably be expected to affect the work of the other.

b. DHSS and DNR agree to cooperate in the preparation and issuance of administrative orders or in pursuit of other actions to help abate public health emergencies associated with hazardous substance emergencies.

c. Should either agency desire the attendance of the other at a public meeting, hearing, availability session, or other public event, the agency making the

request shall give the other agency at least two weeks advance notice or, if circumstances prevent such notice, then as much advance notice as possible.

d. DHSS and DNR will share information with one another regarding environmental issues about which the other agency has an interest or statutory responsibility. For instance, data regarding developments related to the toxicity of contaminants, new and emerging contaminants, exposure pathways, risk assessment, and other, similar subjects. In all cases, any such data determined to warrant confidential treatment by one agency shall be managed as confidential by the other.

e. DHSS and DNR may, as appropriate and feasible, conduct joint site visits or investigations.

f. DHSS and DNR agree to meet twice per year to discuss issues of mutual interest, concern, or responsibility related to hazardous substances and public health. Each meeting will include managerial and technical staff as appropriate considering the meeting agenda (an agenda will be developed and disseminated to both agencies at least two weeks in advance of the meeting). As agreed to by both agencies, more or fewer meetings may be held during any given calendar year.

g. DHSS and DNR agree to provide appropriate and adequate training for new employees and appropriate periodic training for all employees regarding the authorities, roles, responsibilities, and cooperative activities of the other agency. In addition, both agencies agree to assist one another with identifying training needs and content.

Section 8: Air Pollution Control

A. Overview

The purpose of this section is to describe and delineate the responsibilities of the Missouri Department of Natural Resources (DNR) and the Missouri Department of Health and Senior Services (DHSS) concerning air contaminants that may threaten human health. The goals of this section are to discuss the air pollution issues that may cross the lines of authority under the law in order to provide a common understanding of each department's responsibility and to improve coordination.

B. General Authority

1. DNR

The Missouri Air Conservation Law, Chapter 643, RSMo, contains the authorities of DNRs' Air Pollution Control Program (APCP) and the Missouri Air Conservation Commission (MACC).

Air pollution rules under the purview of APCP are covered in the Code of State Regulation Title 10, Division 10 – Air Conservation Commission.

State law grants broad authority to the MACC and APCP to regulate sources of air pollution.

2. DHSS

Under Section 192.020, RSMo, DHSS has primary responsibility for safeguarding the health of the people in the state and all its subdivisions.

Section 192.011, RSMo requires DHSS to monitor adverse health effects of the environment and prepare population risk assessments regarding environmental hazards including, but not limited to, those relating to water, air, toxic waste, solid waste, sewage disposal, and others. DHSS is to make recommendations to DNR for improvement of public health as related to the environment.

DHSS is responsible under Section 643.263, RSMo for reviewing asbestos management plans.

C. Roles and Responsibility

Air Permits

Facilities that are sources of air pollution cannot operate in Missouri without an air permit.

To protect human health, ambient air quality analysis is performed as part of air permit applications to demonstrate compliance with Risk Assessment Levels (RALs). RALs are used as guidelines to place limits on the emissions of an air pollution source and are concentrations of air toxics that are not expected to produce adverse human health effects during a defined period of exposure. These levels are established by DNR with concurrence by DHSS.

In the issuance of air permits, DNR may require an air toxics risk assessment be completed for the facility. In such cases, DHSS is consulted on the appropriate risk assessment methodology and provided the opportunity to review and comment on applicable documents.

1. **DNR**

   Based on the protocol outlined in the Standard Operating Procedure for Risk Assessment Level Determination, the APCP toxicologist develops RALs to be protective of cancer and noncancer health effects and will send the recommended RALs to the Department of Health and Senior Services' Bureau of Environmental Epidemiology (BEE) for its comments. APCP and BEE agree that the comment period will be for 30 calendar days.

   For instances where DNR requires the completion of an air toxics risk assessment, the APCP will consult with BEE on appropriate methodology and will send all applicable documents to BEE for its comments. The time period for comments will be agreed upon at the time the request is made.

2. **DHSS**

   BEE will review and either concur with the APCP toxicologist's recommended RALs or will offer its own recommendation within 30 calendar days. If BEE concurs with the APCP toxicologist, then APCP's recommended RALs would become the State's air permit emissions guidelines. If BEE does not concur with the APCP toxicologist, then BEE’s recommendation will become the State's air permit emissions guidelines.

   BEE will provide consultation and advice to the APCP concerning appropriate methodology for conducting air toxics risk assessments. BEE will review and provide comments on applicable documents within a timeframe acceptable to all parties.

Asbestos

1. DNR

APCP accepts delegation of authority from the U.S. Environmental Protection Agency (EPA) for enforcement of the asbestos provisions of the National Emissions Standards for Hazardous Air Pollutants (NESHAP). The Asbestos NESHAP may be found at 40 CFR Part 61, subpart M. The Asbestos NESHAP applies to the demolition of all regulated structures, and demolition or renovation projects that disturb 160 square feet, 260 linear feet, or 35 cubic feet, or more, of regulated asbestos-containing material. State Regulation 10 CSR 10-6.080 adopts the asbestos NESHAP by reference.

State Regulation 10 CSR 10-6.241, “Asbestos Projects-Registration, Notification and Performance Requirements”, sets forth requirements for registration of any person that conducts an asbestos project, for asbestos project notification, and for reporting and record keeping associated with asbestos projects.

State Regulation 10 CSR 10-6.250, "Asbestos Abatement Projects -Certification, Accreditation and Business Exemption Requirements", regulates training, testing and certification of asbestos abatement occupations. Regulated occupations are workers, supervisors, inspectors, management planners, project designers and air sampling professionals and technicians. This state regulation also requires Missouri accreditation of training providers that train persons for the purpose of becoming Missouri certified in one or more of the regulated occupations.

APCP Enforcement Section staff answer questions about requirements, review asbestos project notifications and demolition project notifications, inspect asbestos abatement and demolition projects, review applications for course accreditation, audit accredited courses, review applications for asbestos occupational certification and contractor registration, and approve or deny accreditation, registration or certification as appropriate. Enforcement actions are also taken against those found in violation of the department's requirement to act as a deterrent from committing future violations.

2. DHSS

The Asbestos Hazard Emergency Response Act (AHERA), a provision of the Toxic Substances Control Act, became law in 1986. The AHERA may be found at 40 CFR Part 763, subpart E. Public school districts and private or parochial schools (collectively called local education agencies) are subject to AHERA's requirements.

AHERA requires local education agencies to inspect their schools for asbestos-containing building material and prepare management plans to prevent or reduce asbestos hazards.

These requirements are incorporated by reference in Section 643.263, RSMo. This statute specifies asbestos management plans to be submitted to DHSS for review and approval. Furthermore, the statute expands on those required to submit asbestos management plans to include political subdivisions in addition to local education agencies.

DHSS also responds to health effects concerns from the general public with regards to asbestos exposure.

D. Cooperative Activities

Both agencies agree that DHSS will review air toxics data from a health perspective when DNR requests assistance. DNR agrees that APCP will consult with BEE when there is an actual or potential human exposure under investigation. DHSS agrees that BEE will provide APCP with consultation and technical advice on possible health effects from exposure to air toxics and will participate in the issuance of public health information.

When an activity or general condition poses a significant risk of air contamination and constitutes a clear and present danger to the public health, the public welfare or the environment, the director of DNR can issue a cease and desist order (Section 643.090, RSMo). The action is reserved for emergencies. Before issuing a cease and desist order, APCP will request concurrence from DHSS that the activity or contamination poses a danger to public health.

Section 9: Laboratory

A. Overview

The DHSS Missouri State Public Health Laboratory (MSPHL) and the DNR State Environmental Laboratory maintain distinct biological, chemical, and radiological laboratory testing capabilities that provide analytical laboratory services to support local, state, and federal programs. This section outlines the general laboratory capabilities that are available at each laboratory and is intended to enhance the coordination and utilization of laboratory services.

B. General Authority

Drinking water: Section 640.100.10, RSMo 1992.
Missouri State Emergency Operation Plan

In general, laboratory services are conducted in support of program authorities previously listed in this agreement.

C. Roles and Responsibility

1. DHSS

DHSS maintains the Missouri State Public Health Laboratory (SPHL). The SPHL is dedicated to the promotion, protection, and assurance of the health of Missouri's citizens by providing a wide range of diagnostic and analytical services. These services include quality-assurance laboratory testing for infectious diseases, genetic disorders and environmental health concerns, both in support of public health programs, and as a reference laboratory performing unusual or specialized procedures. The SPHL provides analytical laboratory capabilities for biological, chemical, and radiological emergency events through participation in emergency laboratory networks, such as; the Laboratory Response Network (LRN), Food Emergency Response Network (FERN), EPA Region 7 Response Plan Consortium and the Emergency Response Laboratory Network (ERLN).

The SPHL maintains the following analytical testing units that may interact with DNR programs:

Environmental Bacteriology

- Tests public and private drinking water supplies and recreational waters for the presence of total Coliform and Escherichia coli bacteria (See Public Drinking Water Section)
- Tests food suspected of causing disease

- Inspects and approves water and milk testing laboratories
- Tests environmental samples for biological terrorism agents.

Chemistry

- Conducts lead analysis of blood samples collected from children
- Performs various inorganic and organic chemical analyses on private water supplies
- Conducts heavy metal analyses on samples obtained from household plumbing supplied by public water
- Conducts radiological analyses on water and various other environmental and food materials
- Conducts lead analysis on soil, water, paint samples and dust wipes collected from homes of children with elevated blood lead levels
- Conducts analyses of human serum samples for various chemicals collected in response to a chemical terrorism event
- Conducts biomonitoring analyses and studies of various chemicals resulting from human chemical exposures

Microbiology

- Examines samples for the presence of enteric pathogens such as Salmonella and Shigella
- Examines samples for the presence of scabies, intestinal and blood parasites
- Identifies unusual and dangerous pathogenic bacteria received from other laboratories
- Examines samples for Bordetella pertussis
- Serves as an advanced reference laboratory for detection and the identification of bacterial bioterrorism agents
- Collects and disseminates surveillance data on infectious bacterial diseases

Other SPHL laboratory testing units: Tuberculosis, Immunology, Virology, Newborn Screening

2. DNR

DNR maintains EPA primacy for public drinking water chemical analysis and operates the State Environmental Laboratory. The Environmental Services Program (ESP),

Chemical Analysis Section (CAS) houses the state's primary laboratory for drinking water chemistry and environmental chemistry. CAS provides analytical support for programs throughout the department and for other state agencies. The CAS laboratory maintains analytical laboratory capabilities to identify and confirm the presence of natural and man-made pollutants. The CAS provides analytical laboratory capabilities for chemical emergency events through participation in emergency laboratory networks, such as the ERLN, EPA Region 7 Response Plan Consortium, and the DNR Environmental Emergency Response (EER). CAS maintains a contract laboratory to provide analytical laboratory services for various chemical agent analyses not available at CAS.

The ESP/CAS laboratory maintains the following analytical testing capabilities, including methodology and instrumentation, and may interact with SPHL:

Chemistry

- Tests public drinking water for a variety of organic and inorganic constituents.
- Tests a variety of matrices for the presence of metals; volatile organic compounds; semi-volatile organic compounds; nonmetallic constituents; aggregate organic constituents; physical and aggregate properties and other individual organic compounds.
- Matrices tested include: groundwater; surface water; drinking water; wastewater; soil; sediment; ambient air; indoor air; landfill leachate; industrial and other unknown products.

Other ESP field and laboratory testing units: Aquatic Biological Assessment; Water Quality Monitoring; Air Quality Monitoring; Air Quality Assurance; Environmental Emergency Response and Field Services

D. Cooperative Activities

1. DHSS and DNR laboratories will continue effective collaboration to ensure a general awareness of each laboratory's analytical capabilities, roles, and emergency contact information.

2. DHSS and DNR laboratories will provide inter-laboratory support within each entity's authorized capabilities based upon an evaluation and agreement of both laboratories at the time of an event requiring a supportive response.

3. DHSS and DNR laboratories will provide routine and emergency laboratory information to local, state, and federal stakeholders in order to facilitate appropriate public health and environmental investigation, evaluation, monitoring, and emergency response.

4. DNR is the primary laboratory for conducting chemical analysis of public drinking water supplies in Missouri. DHSS SPHL is the primary laboratory for conducting microbiological analysis of public drinking water supplies in Missouri (See Public Drinking Water Section). DHSS SPHL analyzes entities supplied by public drinking water sources as a part of an investigation of internal dwelling chemical contamination. This is not an assessment of the public drinking water source.

5. DHSS shall provide at least one SPHL staff member to serve as the Laboratory Certification Officer (LCO) / Microbiology Program Manager for the Drinking Water Microbiology Laboratory Certification Program administered by the DNR PDWB. This laboratory certification program is administered under the provisions of the U.S. EPA *Manual for the Certification of Laboratories Analyzing Drinking Water: Criteria and Procedures, Quality Assurance* (MCLADW), Fifth Edition, 2005, EPA publication 815-R-05-004. The Director of the DNR PDWB serves as the Certifying Authority (CA) for this program (See Public Drinking Water Section for specific details of LCO/Microbiology Program Manager responsibilities).

6. DHSS will normally provide chemical and microbiological analysis for private water supplies. DNR's laboratory may conduct chemical analysis of samples from private water supplies when necessary to support the activities of other environmental programs in DNR.

7. DHSS and DNR agree that the cost of all laboratory services, personnel, equipment, material, and information that is utilized for laboratory operations shall be through a respective existing department funding source. Funding for services not covered by an existing source will be negotiated at the time the service is requested.

Section 10: Terrorist/WMD and Other Emergency Response Events

A. Overview

The purpose of this section is to provide an understanding of the capabilities and responsibilities of DHSS and DNR concerning the response and recovery from a terrorist incident, tampering event, or other emergency events involving the use of weapons of mass destruction (WMD). WMD include the use of chemical, biological, radiological, nuclear, or explosive materials. This section does not supersede any previous section and further delineate roles and responsibilities of DHSS and DNR during a Terrorist/WMD and other emergency response incident

The *National Response Framework* (NRF) and the *Missouri State Emergency Operations Plan* (MO SEOP) provide for a rapid response to a WMD incident by state and federal agencies. The Federal Bureau of Investigation (FBI) is the Primary Federal Agency (PFA) responsible for investigating a terrorist incident. However, the initial response to a terrorist incident or a tampering event or other emergency responses incident will be the responsibility of local law enforcement and emergency response agencies. It will be imperative that DHSS and DNR quickly provide support to these local agencies in the absence of a federal response or before outside assistance can be deployed to the scene. Tampering events may also be investigated under authority of local and state agencies (an event may not rise to the level requiring federal involvement).

The MO SEOP assigns the responsibility for coordinating the State's overall resource management phase of a terrorist incident or a tampering event or other emergency responses to the State Emergency Management Agency (SEMA). The MO SEOP also assigns responsibilities and supporting roles to both DHSS and DNR. This section will discuss those assignments that require both DHSS and DNR support and how the departments will coordinate their respective actions. An organizational chart of the State of Missouri's response to a terrorist event is provided at the end of this section.

B. General Authority

1. DHSS

DHSS has primary responsibility for safeguarding the health of the people in the state and all its subdivisions (Section 192.020, RSMo).

DHSS has the responsibility and broad authorities to investigate and prevent disease under Section 192.020, RSMo**,** and 19 CSR 20-20.010 through 19 CSR 20-20.100. The list of reportable diseases and conditions found in 19 CSR 20-20.020 includes but is

not limited to “diseases within the immediately reportable disease category [that] pose a risk to national security because they: can be easily disseminated or transmitted from person to person; result in high mortality rates and have the potential for major public health impact; might cause public panic and social disruption; and require special action for public health preparedness” including but not limited to those occurring naturally, from accidental exposure, or as a result of a bioterrorism event; instances, clusters, or outbreaks that appear to be a result of a terrorist act or the intentional or deliberate release of biological, chemical, radiological, or physical agents; and even diseases occurring from an undetected bioterrorism event.

Under 19 CSR 20-3.040 DHSS has the authority to investigate as necessary private water supplies and to protect the public from a private water supply that is or may be a menace to health.

DHSS statutes and regulations regulate water supplies in lodging establishments (from a source other than a public water supply under Section 315.024, RSMo and 19 CSR 20-3.050 *Sanitation and Safety Standards for Lodging Establishments*) and food establishments (under 19 CSR 20-1.025 *Sanitation of Food Establishments;* U.S. Department of Health and Human Services Public Health Service Food and Drug Administration *1999 US Food Code 5-101.11 through 5-101.13*)**.**

Under 19 CSR 20-3.060 DHSS has authority with regard to lodging establishments to issue boil orders, to require the provision of safe alternative water, and ensure standards for bottled water and ice when necessary to safeguard the health of the people of Missouri, and to safeguard the health of the people of Missouri under 19 CSR 20.1-025 *Sanitation of Food Establishments*, under 19 CSR 20-1.030 *Sanitation and Production Standards for Frozen Desserts*, under 19 CSR 20-1.040 *Inspection of the Manufacture and Sale of Foods*, and under 19 CSR 20-1.050 *Sanitation Standards for the Manufacture of Soft Drinks and Beverages*.

Under Section 260.445.5, RSMo and section 260.480, RSMo, upon a request from DNR DHSS is to evaluate the effects to human health of any abandoned or uncontrolled site, including releases of hazardous substances as defined in Section 260.500, RSMo, which includes some WMD agents. These evaluations can include immediate investigatory response to actual or potential environmental contamination, and advice on appropriate risk management activities to reduce or eliminate health hazards. It can also involve evaluating the human toxicity, and assessing risk from exposure to all types of hazardous substances in the environment. Section 192.011, RSMo requires DHSS “to monitor the adverse health

effects of the environment and prepare population risk assessments regarding environmental hazards including but not limited to those relating to water, air, toxic waste, solid waste, sewage disposal, and others" and make recommendations to DNR, including in matters of known or possible bioterrorism.

Responsibilities of DHSS, with respect to radiation protection, are outlined in Chapter 192, RSMo. Section 192.510, RSMo requires DHSS to respond to all radiation emergencies, including any related to terrorism, and to coordinate its emergency plans and actions with DNR and the State Emergency Management Agency. Those functions are performed by DHSS, Radiological Emergency Program (REP). Pursuant to 19 CSR 20-20.020, DHSS receives reports of immediately reportable diseases or conditions including "instances, clusters, or outbreaks of unusual diseases or manifestations of illness and clusters or instances of unexplained deaths which appear to be a result of a terrorist act or the intentional or deliberate release of …radiological… agents, including exposures through food, water, or air." See Section 6 for additional information related to radiological response.

2. DNR

Under Sections 640.100-640.140, RSMo and associated rules (10 CSR 60; 1-16), Public Drinking Water Branch (PDWB) has the responsibility to require testing and reporting of analyses of public water supplies, and to enforce the Missouri Safe Drinking Water Act (SDWA). Under Sections 260.350-260.550, RSMo, HWP is responsible for supervision and enforcement of the Missouri Hazardous Waste Management Law.

Article IV of the constitution designates DNR as the agency responsible for environmental control. The capability to respond to emergencies, which may threaten the environment, is essential to that control. The Division of Environmental Quality (DEQ) within DNR maintains expertise in that area. Pursuant to Section 260.505, RSMo, DNR has developed a hazardous substance emergency response plan as an appendix to the MO SEOP.

Under Sections 260.500-260.550, RSMo and 10 CSR 24.2.010 (5) (d) and 10 CSR 24.3.010 (1), EER is responsible for ensuring the protection of the public health and the environment from hazardous substance emergencies, which includes many WMD agents, and being notified of hazardous substance releases involved in a terrorist incident or a tampering event or other emergency responses.

3. Joint Authorities

Under Sections 640.100-640.140, RSMo, DHSS/Missouri State Public Health Laboratory (MSPHL) and DNR Environmental Services Program (ESP) laboratory are to provide the analyses required under the SDWA.

MO SEOP also references these roles and authorities.

C. Roles and Responsibilities

1. DHSS

DHSS maintains the MSPHL. The MSPHL provides analytical laboratory capabilities for biological, chemical, and radiological emergency events through participation in emergency laboratory networks, such as the Laboratory Response Network (LRN), Food Emergency Response Network (FERN), EPA Region 7 Response Plan Consortium and the Emergency Response Laboratory Network (ERLN).

The MSPHL maintains emergency laboratory capabilities to:

- Conduct various biological agent analyses in environmental samples through the LRN.
- Conduct various chemical agent analyses in clinical samples through the LRN.
- Conduct various biological and chemical agent analyses in drinking water samples and serve as the primary biological testing and response laboratory for the state's public drinking supplies.
- Conduct various radiological agent analyses in environmental samples.
- Conducts various biological, chemical, and radiological analyses in food samples.

The Center for Emergency Response and Terrorism (CERT) coordinates planning and response activities for public health emergencies, such as natural disasters, pandemic influenza, and biological, chemical, and radiological/nuclear terrorism. Through partnerships with local public health agencies, hospitals and other health care organizations, local government and law enforcement agencies, schools, and other partners, CERT works to assure systems are in place to protect the health of Missourians during a public health emergency.

The Bureau of Communicable Disease Control and Prevention (BCDCP) receives disease case reports and syndromic surveillance data (ESSENCE data) and assures the rapid response to disease situations of public health concern, including disease outbreaks, natural disasters, and bioterrorism events. BCDCP provides on- and offsite technical assistance/consultation/training on disease investigation, prevention and control activities for local public health agencies and health care providers.

The Bureau of Environmental Health Services (BEHS) provides guidelines/recommendations, training and technical assistance/consultation to local public health agencies on coordination of environmentally linked disease outbreak investigations, disease investigation control activities, food sanitation and analysis of data. BEHS also provides public health response to any emergencies affecting food, lodging safety and private water, including rapid response to public health emergencies and disease outbreaks, including bioterrorism events.

The Bureau of Environmental Epidemiology (BEE) is involved in the investigation and prevention of diseases related to the environment. The bureau's efforts focus on diseases associated with exposure to chemical and physical agents in our environment. Services include:

- Conducting epidemiological studies of environmentally-related outbreaks of disease.
- Providing public health consultation and toxicological consultation for emergencies involving chemicals.
- Providing technical advice related to pesticides and other hazardous substances.
- Responding to emergencies affecting private water supplies.
- Preparing for and responding to radiological emergencies through the Radiological Emergency Program.

2. DNR

DNR maintains the State Environmental Laboratory. The Environmental Services Program (ESP), Chemical Analysis Section (CAS) houses the state's primary laboratory for public drinking water chemistry and environmental chemistry. CAS provides analytical support for programs throughout the department and for other state agencies. The CAS laboratory maintains analytical laboratory capabilities to identify and confirm the presence of natural and man-made pollutants. The CAS provides analytical laboratory capabilities for chemical emergency events through participation in emergency laboratory networks, such as the ERLN, EPA Region 7 Response Plan Consortium, and the DNR Environmental Emergency Response (EER).

The CAS maintains emergency laboratory capabilities to:

- Conduct various chemical agent analyses in environmental samples, including air testing using summa canister sampling.
- Conduct various chemical agent analyses in drinking water samples and is the primary chemical testing and response laboratory for the state's public drinking water supplies.
- Conduct various chemical agent analyses through the ERLN.
- Conduct various chemical agent analyses in support of the DNR EER.
- Maintains contract laboratories to provide analytical services for various chemical agent and radiological analyses not available at CAS.

In addition, the ESP EER Section has CBRNE-related field sampling and air monitoring equipment that is available to support local fire, haz-mat and law enforcement entities as needed. The EER section will support response operations to terrorist incident or a tampering event or other emergency response events involving hazardous materials/WMD.

The Public Drinking Water Branch (PDWB) will support response operations to terrorist incident or a tampering event or other emergency response incidents involving public drinking water systems.

The HWP will be responsible for oversight of a long-term cleanup of hazardous substance releases associated with terrorist incidents, tampering events or other emergency response events involving real or threatened use of WMD.

The Division of State Parks' Rangers Program may support response operations by providing law enforcement personnel through mission assignments, primarily through a gubernatorial declaration of a state of emergency.

3. Joint Responsibility

Any terrorist incident, tampering event or other emergency responses event will be managed using the guidance provided by the National Incident Management System (NIMS) and the National Response Framework. All emergency plans require that an Incident Command (IC) structure be established. All assets, federal, state and/or local, will work through this system.

D. Cooperative Activities

Communications

1. DHSS

The appropriate single point of contact for notification at DHSS shall be the Department's Situation Room (DSR) twenty-four hour telephone hotline at (800) 392-0272. DHSS will notify DNR and management staff as appropriate upon receipt of information pertaining to a WMD Incident.

2. DNR

The appropriate single point of contact for notification at DNR shall be the Environmental Services Program's (ESP) Environmental Emergency Response (EER) twenty-four hour telephone hotline at (573) 634-2436. DNR will notify DHSS and management staff as appropriate upon receipt of information pertaining to a WMD Incident.

3. Joint Responsibility

Normal procedures for notification of incidents to the departments are covered in Section 2 of this document. Both departments agree to notify the other and SEMA (573-751-2748) immediately upon receipt of information pertaining to a terrorist incident or a tampering event or other emergency response incident.

One very important task for the IC is to provide information to the public. The NIMS provides for the establishment of a Joint Information Center (JIC) within the IC structure. The JIC provides a location for organizations participating in the management of an incident to work together to ensure that timely, accurate, easy-to-understand, and consistent information is disseminated to the public. Staff from DHSS and DNR will be prepared to support JIC operations and/or other public information coordination and dissemination efforts. This will be accomplished by collaborating with other local, state and federal responding agencies on news releases, public health and safety advisories, fact sheets, Web-based resources and other vital information about the emergency event.

Emergency Response

1. DHSS

DHSS will assess, where necessary in conjunction with other state and federal agencies, the human toxicity and the risk to human health of chemical, biological and radiological agents in the environment. If requested, DHSS will provide information regarding protection of human health to the local response teams, health agencies and emergency management as these entities administer the personnel monitoring program and decontamination operations. DHSS may assist with providing guidance for the preparation and maintenance of exposure records of personnel involved in the response and recovery from a WMD incident.

If the incident produces radiological contamination, DHSS will provide guidance on the radiological dose limitations for emergency workers. DHSS can also provide technical expertise and equipment to isolate and characterize radiological contamination. DHSS has trained staff that can collect environmental samples from a radiological or biological event, in particular a biological event impacting food or water. However, DHSS staff does not have the personal protective equipment or training to enter an atmosphere requiring greater than Level C protection and will request assistance in such sampling from local responders such as an adequately trained HSRRS Team, DNR, or the National Guard 7th Civil Support Team.

If the event is large enough and local/state pharmaceutical supplies will be depleted, DHSS will request, through the Governor's Office, access to the Centers for Disease Control and Prevention (CDC) Strategic National Stockpile to obtain the medical supplies necessary to counter the effects of chemical, biological, or radiological agents. DHSS will provide priority mass prophylaxis to state-level first responders in order to protect emergency workers. Other workers will obtain prophylactic medications through points of dispensing which will be made available in affected communities by local public health agencies.

DHSS has pre-positioned CHEMPACK containers which contain antidotes to nerve agent exposures. Containers have pre-packaged medication and auto-injectors for use by first responders. These antidotes are available for use throughout the state. During events involving dirty bombs with potential release of plutonium, americium or curium, DHSS has pre-positioned diethylene triamine pentaacetic acid (DTPA), a chelating agent for treatment of first responders and other individuals exposed to these isotopes.

Staff from DHSS will need to be prepared to support the JIC by collaborating to prepare advisories concerning the public health and environmental effects resulting from the WMD incident. Staff from DHSS and DNR will be prepared to support JIC operations and/or other public information coordination and dissemination efforts. This will be accomplished by collaborating with other local, state and federal responding agencies on news releases, public health and safety advisories, fact sheets, Web-based resources and other vital information about the emergency event.

2. DNR

DNR EER has the capability to support emergency operations by providing emergency response personnel and equipment statewide. Several Homeland Security Regional Response System (HSRRS) Teams have been assembled throughout the state to provide emergency response capabilities during a WMD incident. The EER can provide technical expertise and resources to the HSRRS assets and/or local emergency response organizations to support initial response, cleanup, and decontamination. The EER and the HSRRS have the capability of conducting operations in contaminated environments related to WMD events. Response activities may include obtaining environmental samples. These activities will be discussed below, under Sampling and Analysis. DNR is also responsible for monitoring the air quality of the contaminated areas and providing oversight of any environmental cleanup operations.

Staff from DNR will need to be prepared to support the JIC by collaborating to prepare advisories concerning the public health and environmental effects resulting from the WMD incident.

If there is potential for contamination to drinking water supplies, the PDWB and EER will utilize the Investigation Protocol for Potentially Compromised Drinking Water Systems and the Public Drinking Water Emergency Operation Plans for response operations.

Laboratory Cooperative Activities

DHSS and DNR will collaborate to ensure that environmental and clinical samples that are collected in response to a biological, chemical, or radiological emergency event will be provided to the laboratory that has the authorization/capability to analyze the samples in the most expeditious manner.

The DHSS and DNR laboratories will continue effective collaboration to ensure a general awareness of each laboratory's analytical capabilities, roles, and emergency contact information.

The DHSS and DNR laboratories will provide inter-laboratory support within each entity's authorized capabilities based upon an evaluation and agreement of both laboratories at the time of an event requiring a supportive response.

The DHSS and DNR laboratories will provide emergency laboratory information to local, state, and federal stakeholders in order to facilitate appropriate public health and environmental emergency response.

Sampling

The number and type of samples required to make a sound judgment about the safety of the environment and of those persons exposed will depend on the scope of the incident. Samples of media not normally collected may need to be collected and analyzed to determine the full extent of contamination. DNR and DHSS will collaborate as appropriate to determine sampling and analysis needs adequate to address an event.

In addition to DHSS and DNR, the MO SEOP tasks the Missouri Department of Agriculture (MDA) and the Missouri Department of Conservation (MDC) with obtaining samples within their respective jurisdictions to be analyzed. DHSS, DNR, MDA, and MDC will need to coordinate efforts to ensure all food supplies, farm animals, crops, pets, fish, wildlife, and their habitats that have been potentially exposed to a harmful agent during a terrorist incident, tampering event or other emergency response to a WMD event are sampled, analyzed, and decisions made regarding their public use.

Recovery

After the initial response to a WMD incident, the goal of the emergency management system is to return the affected population and environment to as near a normal condition as possible. Interaction between the departments regarding cleanup levels and risks to human health will continue until the Governor has declared the incident recovery operations complete.

1. **DHSS**

   DHSS will continue to monitor/track potential exposures and continue to provide information concerning short and long term health effects of exposure to the contaminant(s).

2. **DNR**

   DNR will continue to support, monitor, and oversee local cleanup and decontamination operations.

3. **Other**

   As federal assets de-mobilize from the scene, jurisdiction for final recovery operations will pass from the FBI and Federal Emergency Management Agency (FEMA) to the Governor and SEMA. State and local agencies will need to continue to work together and support the state incident management system until the state returns to normal operations. Each department will continue to provide support until the treatment of victims and the cleanup of the environment is complete.

Funding

DHSS and DNR agree that the funding of all laboratory services, personnel, equipment, material, and information that is utilized for an emergency response shall be through a respective existing department funding source. Funding for services not covered by an existing source will be negotiated at the time the service is requested. Each department will track costs associated with the response.

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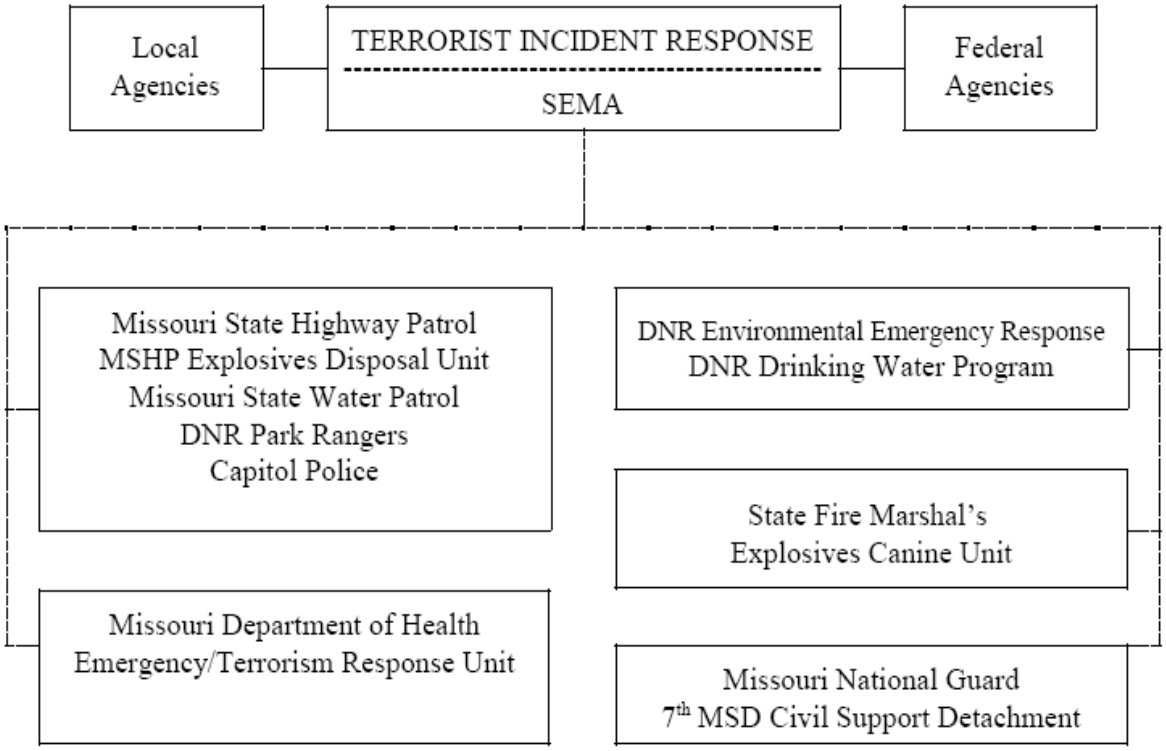
ORGANIZATIONAL CHART FOR TERRORIST INCIDENT RESPONSE



Section 11: Long Term Stewardship

A. Overview

Long-term stewardship (LTS) includes all activities necessary to ensure sustainable protection of human health and the environment at sites with a history of environmental issues. This may include sites where contamination or residual contamination is left in place after remediation, as well as sites with known or potential uncontrolled contamination. Long-term stewardship is a necessary component of 'risk-based' remediation strategies which may result in a site suitable for certain uses and not for others. To ensure protectiveness of these remedies, exposure must be prevented for as long as residual contamination remains. Long-term stewardship includes all engineered and institutional controls designed to contain or prevent exposures to residual contamination, such as:

- Monitoring and enforcement activities;
- Data collection, management and dissemination;
- Repair and maintenance of engineered controls or barriers;
- Access and land use restrictions; and
- Timely and effective public information.

The goal of this section is to outline the way that the agencies cooperate to ensure that site owners, occupants, prospective buyers and the public are aware of environmental issues.

B. General Authority

1. DHSS

DHSS has the responsibility to ensure protection of public health within the state of Missouri. This authority is provided to the department in chapters 192 and 260 of the Revised Statutes of Missouri. DHSS ensures protection of public health at sites with a history of environmental issues by:

- Reviewing information on environmental hazards;
- Assessing the potential for exposure to those hazards;
- Assessing the potential health risk if exposure occurs; and
- Providing education, information and recommendations to DNR, the Environmental Protection Agency, other agencies (federal, state and local) and to the public on ways to reduce exposure to environmental hazards.

2. DNR

DNR has a responsibility to identify, assess and assure proper management of contaminated or potentially contaminated sites. This authority is provided to the department in chapter 260 of the Revised Statutes of Missouri, as well as under several federal laws (Comprehensive Environmental Responsibility, Compensation, Liability and Act, or CERCLA, and the Resource Conservation and Recovery Act, or RCRA). For sites where remedies are needed to address contamination, DNR promotes the continued protectiveness of those remedies by:

- Developing or approving remedies;
- Ensuring long-term protection for future users as well as current;
- Developing a database of long-term stewardship sites and conveying information about these sites to the public, as required in the Missouri Environmental Covenants Act

C. Roles and Responsibility

1. DHSS

In general, DHSS is responsible for assessing risks from exposure to contaminants remaining at sites requiring long-term stewardship. Specific roles and responsibilities include:

- Assessing risks related to long-term stewardship
- Collaborating with appropriate state, federal and local health and environmental agencies
- Providing appropriate information to the public related to environmental health risks at long-term stewardship sites
- Serving as an information conduit to Local Public Health Agencies and the public

2. DNR

In general, DNR is responsible for managing the risks from exposure to contaminants remaining at sites requiring long-term stewardship. Specific roles and responsibilities include:

- Managing long term operations and maintenance (O&M) of the remedy
- Collecting and maintaining information regarding effectiveness of the remedy
- Monitoring engineered barriers and controls
- Monitoring access and land use controls
- Disseminating long-term stewardship information to DHSS and the public

3. Joint Responsibilities

The agencies have several responsibilities in common to ensure long-term stewardship:

- Communicating and sharing necessary information
- Consulting with each other on appropriateness of long-term stewardship aspects of remedies
- Consulting with each other on continued protectiveness of actions taken at a site or changes in site conditions

D. Cooperative Activities

1. DHSS

The following are activities which DHSS shall undertake in cooperation with DNR to ensure long-term protectiveness of remedies put in place at sites that were or may have been contaminated:

- Reviewing information and providing recommendations as to ensure that public health is protected at long-term stewardship sites. This may include individual site remedies (CERCLA, RCRA, Registry, etc.), multi-site issues (lead, dioxin, sewage, etc.) and agency or program guidance documents (MRBCA, etc.)
- Providing information to the public related to public health implications of long-term stewardship sites
- Making information available on long-term stewardship sites to DNR. This may include information from the public or Local Public Health Agencies on the effectiveness of long-term stewardship remedies or potential effectiveness of proposed remedies or other information as appropriate.

2. DNR

The following are activities which DNR shall undertake in cooperation with DHSS to ensure long-term protectiveness of remedies put in place at sites that were or may have been contaminated:

- Accepting, reviewing and considering recommendations from DHSS regarding public health concerns at long-term stewardship sites. This may include individual site remedies (CERCLA, RCRA, Registry, etc.), multi-site issues (lead, dioxin, sewage, etc.) and agency or program guidance documents (MRBCA, etc.).
- Making information available to DHSS and the public. This may take the form of a database or web page already in use or under development by DNR.

3. Other

There are several activities that are required of both agencies. These activities are best completed as joint activities. They include:

- Developing long-term stewardship plans in cooperation with local partners,
- Preparing and releasing public information on long-term stewardship site issues,
- Holding and attending joint public meetings, and
- Participating in regular interagency coordination meetings to update each other on long-term stewardship activities.

SIGNATURES

THIS MEMORANDUM OF UNDERSTANDING IS AGREED TO AND IS BINDING ON OUR RESPECTIVE AGENCIES.

MISSOURI DEPARTMENT OF HEALTH AND SENIOR SERVICES

_____ _____

Margaret Donnelly Date

Director

MISSOURI DEPARTMENT OF NATURAL RESOURCES

_____ _____

Mark Templeton Date

Director

Acronym Glossary

AAL	Acceptable Ambient Level
AHERA	Asbestos Hazard Emergency Response Act
APCP	Air Pollution Control Program
BEE	Bureau of Environmental Epidemiology
BEHS	Bureau of Environmental Health Services
CA	Certifying Authority
CAS	Chemical Analysis Section
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CSR	Code of State Regulations
cumm. supp.	Cumulative supplement
DCEE	Disease Control and Environmental Epidemiology
DCPH	Division of Community and Public Health
DEQ	Division of Environmental Quality
DGLS	Division of Geology and Land Survey
DHSS	Department of Health and Senior Services
DNR	Department of Natural Resources
DPS	Department of Public Safety
EER	Environmental Emergency Response
EHOG	Environmental Health Operational Guidelines
EPA	Environmental Protection Agency
ERLN	Emergency Response Laboratory Network
ESP	Environmental Services Program's

FAC	Financial Assistance Center
FDA	Federal Drug Administration
FERN	Food Emergency Response Network
GPD	Gallons per Day
HWP	Hazardous Waste Program
HWF	Hazardous Waste Fund
HWMC	Hazardous Waste Management Commission
LCO	Laboratory Certification Officer
LTS	Long-term stewardship
LPHA	Local Public Health Agency
LRN	Laboratory Response Network
MACC	Missouri Air Conservation Commission
MCLADW	Manual for the Certification of Laboratories Analyzing Drinking Water
mg/L	Milligrams per Liter
MOU	Memorandum of Understanding
MRBCA	Missouri Risk-Based Corrective Action
MSPHL	Missouri State Public Health Laboratory
NESHAP	National Emissions Standards for Hazardous Air Pollutants
O&M	Operations and Maintenance
ONDCP	Office of National Drug Control Policy
OSHA	Occupational Safety & Health Administration
PDWB	Public Drinking Water Branch
PWS	Public Water System
RAGS	Risk Assessment Guidance
RAL	Risk Assessment Level

RCRA	Resource Conservation and Recovery Act of 1976
REP	Radiological Emergency Program
RSMo	Revised Statutes of Missouri
SEMA	State Emergency Management Agency
SOP	Standard Operating Procedures
SPHL	State Public Health Laboratory
SWMP	Solid Waste Management Program
WPP	Water Protection Program

Organization Charts