Chemical Operations Support Specialist

Who We Serve

During hazardous chemical preparedness or response operations, the Chemical Operations Support Specialist (COSS) will identify and provide critical information to responders, key leaders, and decision-makers. The COSS will be a state and local subject matter expert (SME) with the ability to bridge together response and chemical knowledge in order to minimize the impact of a potential or actual incident involving the release of hazardous chemicals.

Services at a Glance

Local preparedness. The COSS program will enhance the locality's hazardous chemical preparedness and response activities by providing additional knowledge and personnel.

Qualified chemical and ICS expert. The COSS will be a trained, credentialed, and qualified resource with chemical expertise and an understanding of the Incident Command System (ICS).

Joint-command solutions. The COSS will be able to help bridge the intelligence-gaps between state, local, tribal, and territorial (SLTT) first responders and the operational/strategic decision-makers within the ICS structure. The COSS's understanding of both chemical response operations at the tactical level and the public health hazards and environmental impacts of chemical events makes them an ideal resource in addressing joint command challenges.

Cross-jurisdictional support. The COSS will assist with response collaboration without crossing political boundaries or impeding jurisdictional hierarchical structures.

Actionable intelligence. The COSS will have the knowledge, capability, and access to use tools such as ChemResponder and Chemical City Planning Resource (ChemCPR) for the SLTT community. These digital media tools will help create and use actionable intelligence.

Equipment assistance. The COSS will have the ability to assist with personal protective equipment (PPE) selection and logistical sourcing requirements for chemical incident response and recovery.

Incident assessment and recommendations. The COSS will have the skills, knowledge, and abilities to rapidly identify the hazards from detection data, translate the information for key decision makers and provide a recommendation on the first, second, and third order effects of chemical threats as they relate to long term response and recovery operations.

Information sharing. The COSS will be an information-sharing entity that can gather, organize, analyze, synthesize, document, and distribute chemical information for a response.

Exercise and training participation. The COSS will be available to participate in exercises and training activities.

Who Can Use a COSS?

SLTT Emergency Managers

SLTT emergency managers will be able to draw on COSS expertise for planning, exercises, and incident response. The COSS will be able to participate at all levels of the ICS as deemed appropriate by the SLTT emergency plan, and more than one COSS will be able to respond to a single event if necessary.

SLTT First Responders

First responders will be able to rely on the COSS for actionable intelligence based on real-time modeling and assistance with PPE decisions if necessary when responding to an unfamiliar chemical. The COSS will also be able to translate decisions made at the command center into specific actions on the ground.

SLTT Decision Makers

Decision makers will be able to use the COSS's technical expertise and knowledge of the SLTT and Federal incident command structures to improve communications and decision-making capabilities. The COSS will be able to translate technical information from the first responders and modeling tools into actionable intelligence to support the decision makers, as well as act as a liaison between the SLTT response team and the Federal response team.

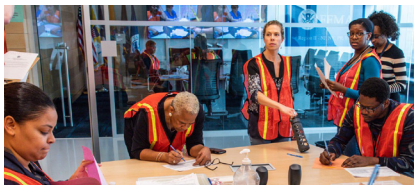
FEMA

For more information about the COSS Program contact fema-cbrnoffice@fema.dhs.gov

How to become a COSS Team Member

Candidates for the COSS program are individuals with education, training, or experience in industrial hygiene, toxicology, chemical sciences or hazardous materials. COSS candidates will attend a pilot training course (expected in September 2019) and complete specific requirements outlined by the FEMA National Qualification System (NQS). Once the candidate's application is reviewed by a qualification panel and approved, COSS credentials will be issued.

COSS Development Update



Why a COSS Program?

The COSS program aims to help SLTT partners improve their capabilities. It targets these areas of low performance identified by the Chemical Preparedness and Response Survey: active involvement, knowledge of structures, and interpretation of data.

Why COSS?—Results of Chemical Preparedness and Response Survey

Are you *fully capable* with *no assistance needed*?

High Performance

Communication | Information

60%
- Access Information on Guidance/Best Practices
- Obtain Chemical Advice/ Recommendations

56–55%
- Exchange Technical Information On-scene
- Communicate Data to Decision-Makers
- Use Computer-Generated Models

53–50%
- Communicate Data to Non-Technical Audience
- Access Internal/External Chemical Response Assets
- Communicate Data to First Responders

Medium Performance

Concepts | Documentation | Research

47%
- Conduct Research on Chemical Toxins Released
- Provide Advice on Exposures/Remediation
- Collect and Share Data

46–45%
- Knowledge of Laws/Standards
- Complete ICS Documentation
- Explain Patient Symptomology
- Support Creation of Objectives to Implement Protective Actions

Low Performance

Active Involvement | Knowledge of Structures | Interpretation of Data

44%
- Integrate into ICS/EOC Structures as Chemical Specialists

40%
- Know Chemical Response Assets at the Federal and SLTT Level
- Provide Training for Chemical Incidents

37%
- Interpret Chemical Data
- Synthesize Knowledge of Toxicological Principles to Conduct Environmental Risk Assessment

COSS Training Coming Soon

Training and certifying COSS personnel is a key step in implementing the COSS program. The COSS training course is in development now, with the first pilot course expected in September 2019.

December 2018	January - March 2019	April - July 2019	August 2019	September 2019
DRAFT Plan of Instruction (POI)	Design and Finalize POI	Develop Materials	Instructor Walk Through	First Pilot

Management of the COSS Program will reside within the Chemical Program in the FEMA CBRN office. Within the ICS, a COSS may provide support directly to the Incident Commander, or at any level within the Planning Section or Operations Section.

FEMA CBRN: Preparing our nation to respond to chemical, biological, radiological, and nuclear catastrophes.

FEMA

For more information about the FEMA CBRN Office
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