



USEPA EMERGENCY PLANNING, PREPAREDNESS AND RESPONSE

ARIZONA MAY 2022 WORKSHOP

Presentation Outline

USEPA Organizational Overview

Background/Historical Context

USEPA Emergency Response Support

US EPA Emergency Preparedness Support

USEPA Emergency Response Specialty Teams





USEPA REGION 9 ESF10 COORDINATORS

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USEPA REGION 9 PLANNING & PREPAREDNESS

ESF10 COORDINATORS

- RISC
- Deploy to RRCC, SOC, EOCs
- Coordinate MAs

PLANNING

- SERCs/TERCS/LEPCs - Local Emerg Plans & Facility Plans
- RRT/ORRT - Regional Area Contingency Plans

TRAINING

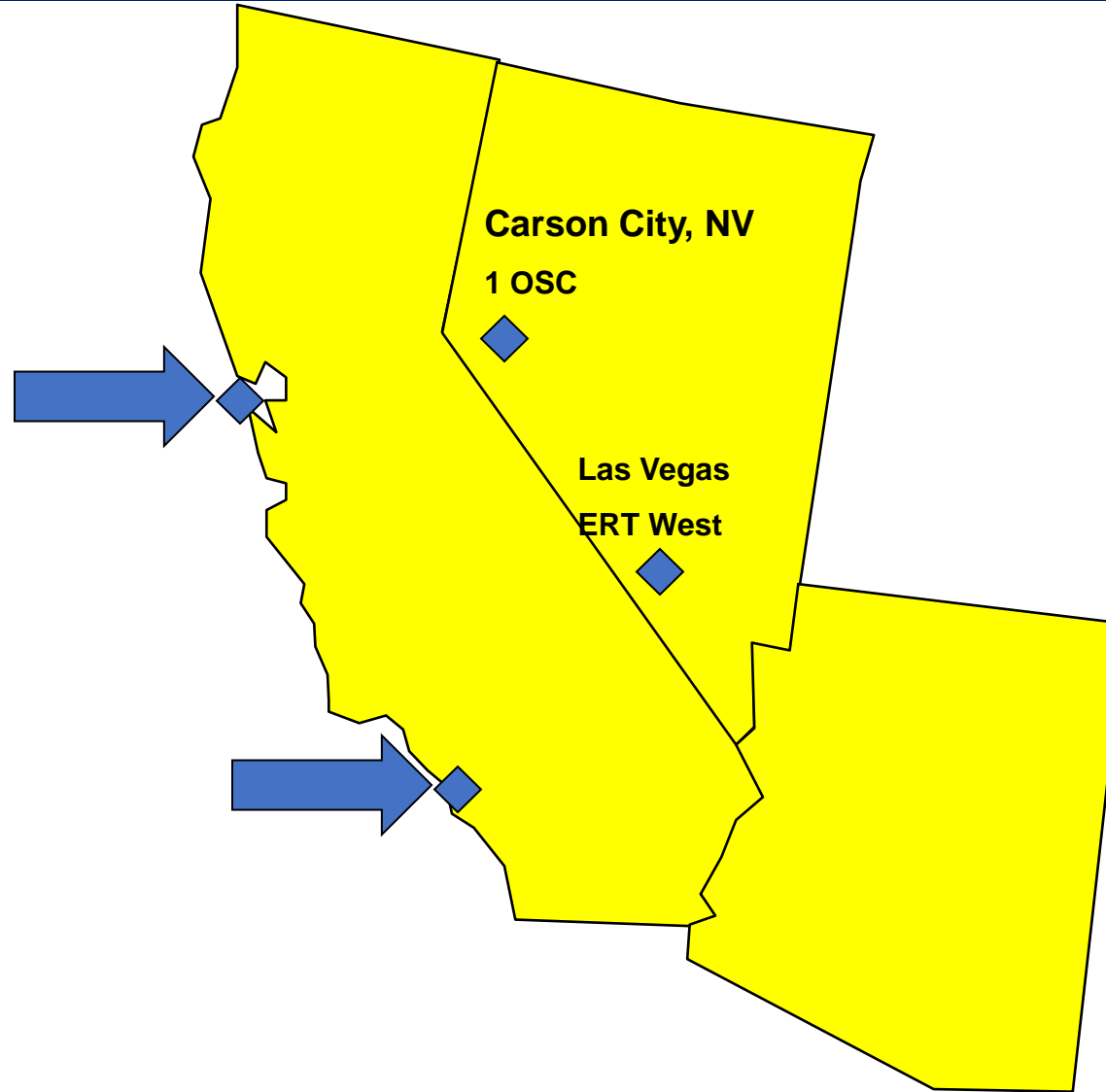
Safety Days, CAMEO, EPCRA, FRA, FRO, ICS, Tribal Workshops

EXERCISES

- Virtual & In-person
- Functional/Full



US EPA Region IX Emergency Response Offices

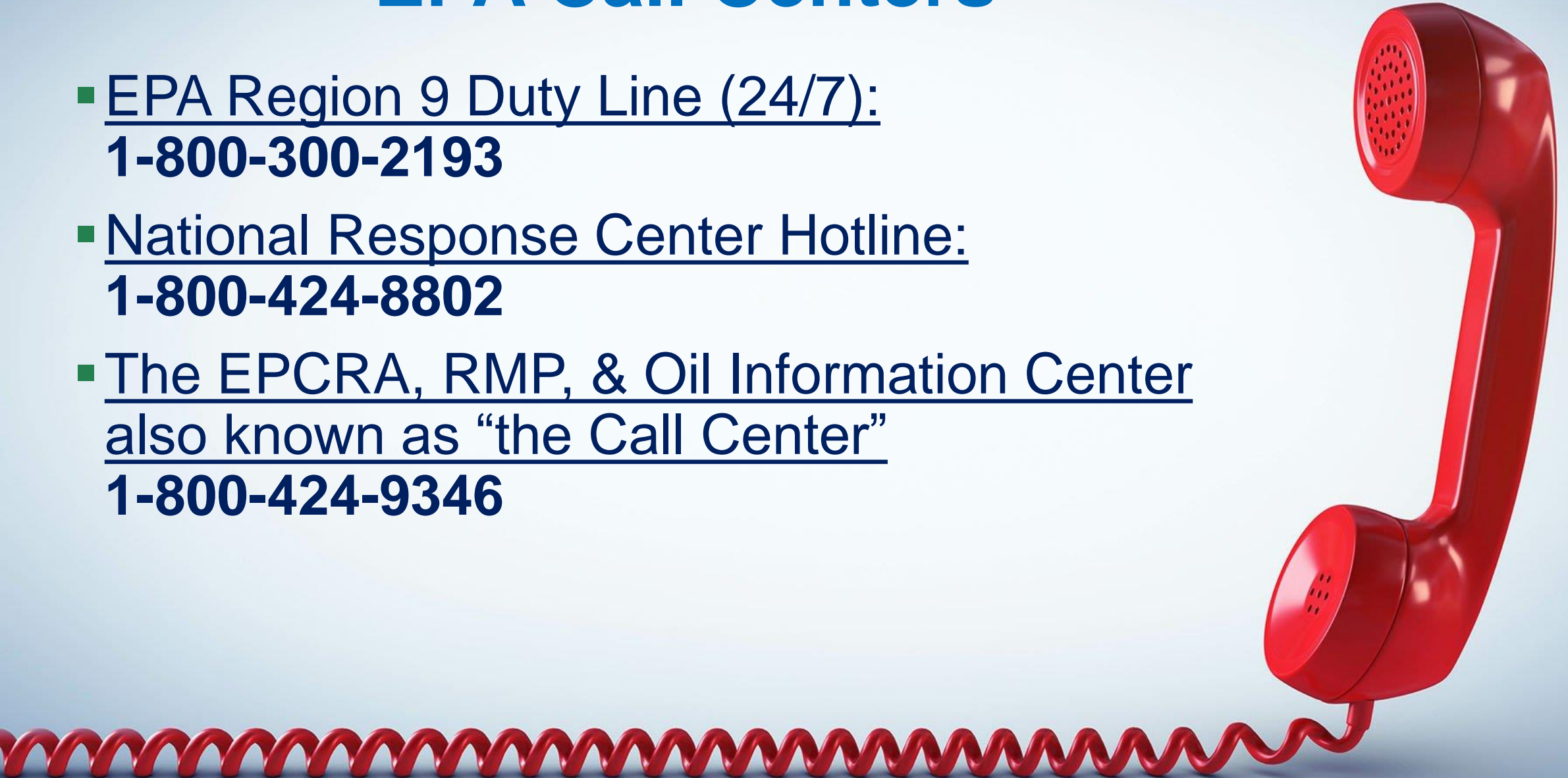


Also responsible for:
Hawaii
Guam
Northern Mariana Islands
Pacific Island Governments
American Samoa



EPA Call Centers

- EPA Region 9 Duty Line (24/7):
1-800-300-2193
- National Response Center Hotline:
1-800-424-8802
- The EPCRA, RMP, & Oil Information Center
also known as “the Call Center”
1-800-424-9346



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BACKGROUND

National Contingency Plan (NCP):

- 1968 - in response to the massive oil spill from the oil tanker Torrey Canyon
- Provided the first comprehensive national system for oil spill reporting and response
- Designates OSC as the lead Federal official at spills of oil and/or hazardous substances



The Torrey Canyon



AUTHORITIES

**Clean Water Act (CWA)
Section 311,
as amended by Oil Pollution Act
(OPA 90)**



**Comprehensive Environmental
Response, Compensation, and Liability
Act (CERCLA)
(aka Superfund)**



- ❖ Response
- ❖ Planning and Preparedness
- ❖ Enforcement

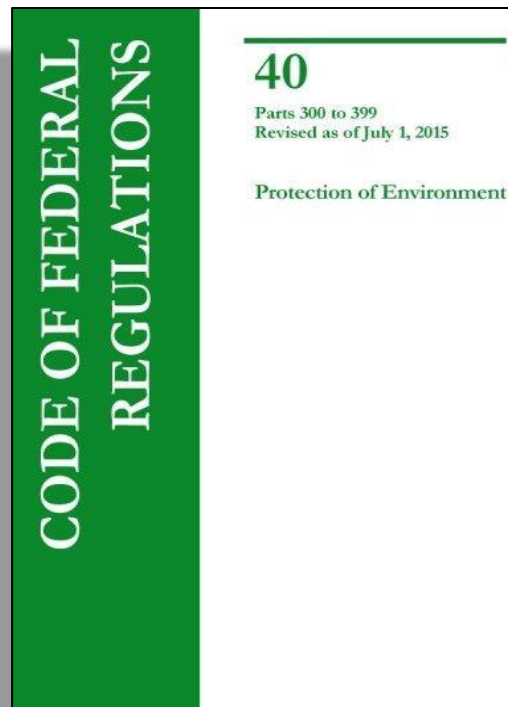
National Oil & Hazardous Substances Pollution Contingency Plan (NCP)

Regulation at **40 CFR part 300** that implements the oil/hazmat response authorities in these laws



NATIONAL OIL & HAZARDOUS SUBSTANCES POLLUTION CONTINGENCY PLAN (NCP)

The NCP, 40 CFR Part 300, is administered by the Environmental Protection Agency (EPA)



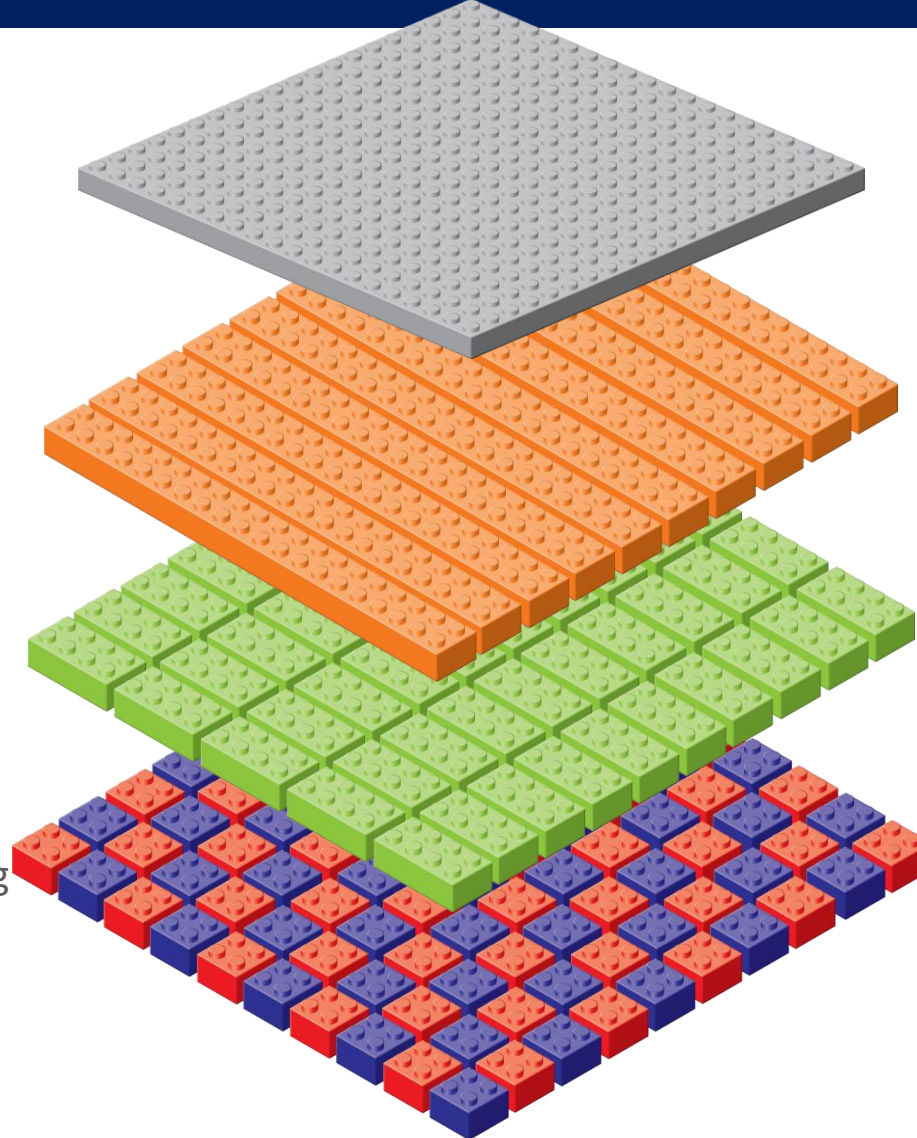
NCP describes the national preparedness and response system (NRS) for oil and hazardous substances

- Includes chemical, biological, radiological, and nuclear (CBRN) releases to the environment
- Both accidental and intentional (including terrorist) releases

NATIONAL RESPONSE SYSTEM (NRS) IS FOCUSED ON OIL & HAZARDOUS SUBSTANCES AND LED BY USEPA & US COAST GUARD

NRS Plans

- National Contingency Plan
- Regional Contingency Plans
- Area Contingency Plans
- Tribal & Local Emergency Planning Committee Plans
- Industry Plans



Planning Groups

- National Response Team
- Regional Response Teams
- Area Committees
- Tribal & State Emergency Response Commissions
- Tribal & Local Emergency Planning Committees
- Industry



NATIONAL RESPONSE TEAM

Mission: *To provide technical assistance, resources and coordination on preparedness, planning, and response activities for emergencies involving hazardous substances, pollutants and contaminants, hazmat, oil, weapons of mass destruction in natural and technological disasters and other environmental nationally significant incidents.*

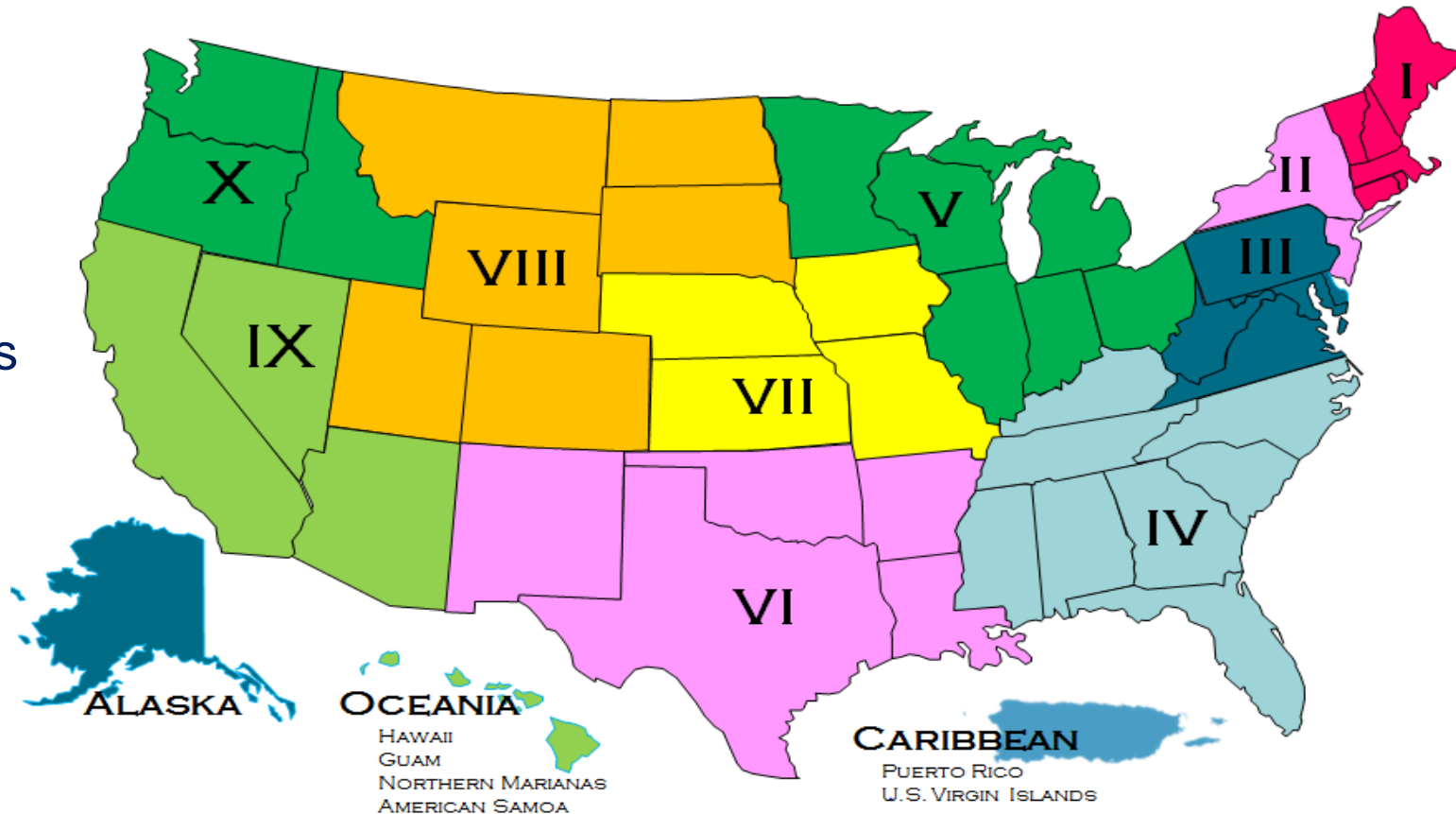
- Comprised of 15 federal agencies/departments
- EPA – Chair; USCG – Vice Chair
- National-level planning, policy, and coordinating body
- Provides policy advice and national-level assistance to the OSC and RRT(s) during a response





REGIONAL RESPONSE TEAMS (RRTs)

- 13 RRTs comprised of 15 federal agencies plus state/territorial and tribal representatives
- Co-chaired by EPA and USCG
- Engage in planning and training activities year-round
- Coordinate decision making process for certain response strategies that have not been preapproved
- Provide technical expertise and resources to the OSC during a response





FEDERAL ON-SCENE COORDINATORS (OSCs)

USCG FOR COASTAL ZONE



USEPA FOR INLAND ZONE



- Authority to conduct, direct, and coordinate all response efforts at the incident scene
- Protect the environment, public health, as well as worker safety & health
- Responsible for developing Area Contingency Plans (ACPs) and Chairing Area Committees

USEPA's EMERGENCY PREPAREDNESS AND RESPONSE PROGRAM HAS EVOLVED OVER SEVERAL DECADES

CAMEO Chemicals

Home
Help
Search Chemicals
New Search
Modify Search
Search Results
MyChemicals
chemicals: 2
View MyChemicals
Predict Reactivity

Chemical Datasheet [Add to MyChemicals](#) [Print Friendly Page](#)

CHLORINE

Chemical Identifiers

CAS Number 7782-50-5 UN/NA Number 1017 DOT Hazard Label Poison Gas Oxidizer Corrosive CHRIS Code CLX

NFPA 704

Diamond	Hazard	Value	Description
0	Health	4	Can be lethal.
4	Flammability	0	Will not burn under typical fire.

EPCRA Sections 301, 302, and 303: Planning for Chemical Emergencies - Google Chrome
https://epawebconferencing.acms.com/l8e0fvgq76x/default/sco01_04/index.html#

EPCRA Sections 301, 302, and 303: Planning for Chemical Emergencies
Lesson 4: EPCRA Section 302 – Substances and Facilities Covered, and Emergency Planning Notification

EPCRA Section 302(a) – Substances Covered and Threshold Planning Quantities
Section 302(a) requires the Administrator of EPA to publish a list of EHSs and establish a TPO for each substance on the list. The EPA Administrator is authorized under Section 302(a)(4) to revise this list when necessary. The list may be revised based on the toxicity, reactivity, volatility, dispersability, combustibility, or flammability of a substance.

On April 22, 1987, EPA published a final rule (52 FR 13378) with the list of EHSs and their TPOs, as well as regulations to implement EPCRA Section 302. The list of EHSs has been revised a few times since April 1987. Currently, there are 355 EHSs, as codified in [Appendices A](#) and [B](#) of 40 CFR Part 355.

Select **Next** to continue.

The list is based on concerns regarding specific hazardous substance characteristics.

Help Resources Previous Page 3 of 26 Next



OTHER USEPA EMERGENCY MANAGEMENT PROGRAMATIC ELEMENTS

Emergency Planning & Community Right-to-Know Act (EPCRA) - 1986

EPA's Accidental Release Information Program - 1987

SERCs Appoint Members of Local Emergency Planning Committees - 1987

Computer-Aided Management of Emergency Operations (CAMEO) - 1988

Clean Air Act Amendments of 1990 – Risk Management Program - 1990

Toxic Release Inventory (TRI) Reporting Begins - 1988

Title III Consolidated List of Lists - 1991

Risk Management Plan Rule - 1996

Executive Order 13650: Improving Chemical Safety and Security - 2013

America's Water Infrastructure Act - 2018



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EPA Emergency Response

- EPA's mission: to protect human health and to safeguard the environment
- Types of Response Actions:
 - Emergencies
 - Time-critical Removal Action
 - Non time-critical Removal Action
 - Disaster Response





USEPA REGION 9 OSC - AZ POCs

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Oil Spills



**Enduring Resources Spill
Near Navajo Nation**



**Pyramid Lake Oil Spill
Gorman, CA**



HazMat Cleanups



**Pressurized gas cylinders LCT site
Huntington park, CA**



**Fresno Drum Site,
Fresno, CA**

Radiation Sites

Preservation Aviation Site
North Hollywood, CA



“Mad Chemist” Sites



Lead Cleanups



Removal of Lead-Contaminated Soils

SOME EXAMPLES OF SPECIALTY TRAINING PROVIDED BY USEPA OSCs



Oil Spill Response and Booming



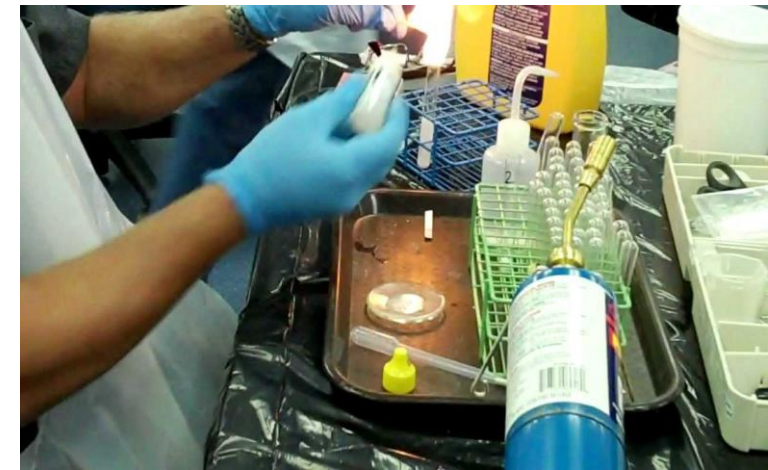
HAZWOPER Refresher



Mercury Response and Cleanup



Mad Chemists, Collectors and Other Eccentrics
Explosives, Fireworks & Other Things that Go Boom



Hazard ID and Categorization



Federally Declared Disasters





KEY DIFFERENCES

NCP Emergency Response Program		Stafford Act
EPA or USCG	Lead Agency	FEMA
OSC	Field Individual Leading	FCO
Lead, support, or monitor, plus enforcement over responsible parties	Type of Authority	Support
Anyone – States, tribes, locals can request at any level	Who Can Make a Request for Federal Help	Governor or Tribal Chief Executive
No – federal government makes independent evaluation of need for federal response	Federal Response Dependent on Receiving Request?	Yes – except for certain emergencies involving primary federal responsibility
No	State Cost Share	Yes – unless waived
May be less broad than Stafford	Scope of Federal Assistance	Broad

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EPA R9 Emergency Preparedness Exercise Program





Exercise Program History



Dangerously Close: Explosion in West, Texas



Executive Order 13650: Improving Chemical Facility Safety and Security

- improve operational coordination with state and local partners;
- enhance Federal agency coordination and information sharing;
- modernize policies, regulations and standards; and
- work with stakeholders to identify best practices.

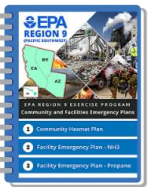


Exercise Program Goals & Objectives

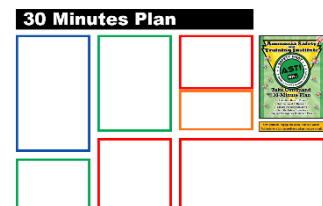
Goal: Improve coordination, communication, and teamwork between local, state, and federal responders

Objectives: Demonstrate and evaluate TTX response to the 4 response stages through One Plan methodology for facility and transportation events

- Demonstrate compliance to new RMP requirements for improving readiness to respond to chemical emergencies e.g., West Texas
- Promote the “plan to plume” and teaming connection between Field Command Community Emergency Management, and State/Federal agency support



30-Min Plan



Ammonia Safety Day Coalition

THE TRIPOD

INDUSTRY, GOVERNMENT, AND PUBLIC SAFETY

INDUSTRIAL COMMAND

Incident Commander
Lead Responder
Notification Leader
Evacuation Supervisor

RESPONSE TOOLS

CAN Report
30 - Minute Plan
Quick Guides
Playbooks & Master Maps



ONE-PLAN RESPONSE

- D** Discovery-Escape Harm and Engage Command
- I** Initial Response-Emergency System Control
- S** Sustained Response-Entry and Control Plan
- T** Termination-Recover and Debrief



TRIPOD TEAMS ENSURE GOOD THINGS OCCUR
IF BAD THINGS HAPPEN



Prevent Them All or Stop Them Small™



AMMONIA SAFETY & TRAINING INSTITUTE

ASTI is a 501(c)(3) Non-Profit

EPA Region 9 – Emergency Planning & Prep Ammonia Safety & Training Institute (ASTI)

Tabletop – One Plan four stages of response

Critical Tasks to Manage Major Ammonia Emergencies



TTX Program Converted to Virtual Environment





TTX Player List

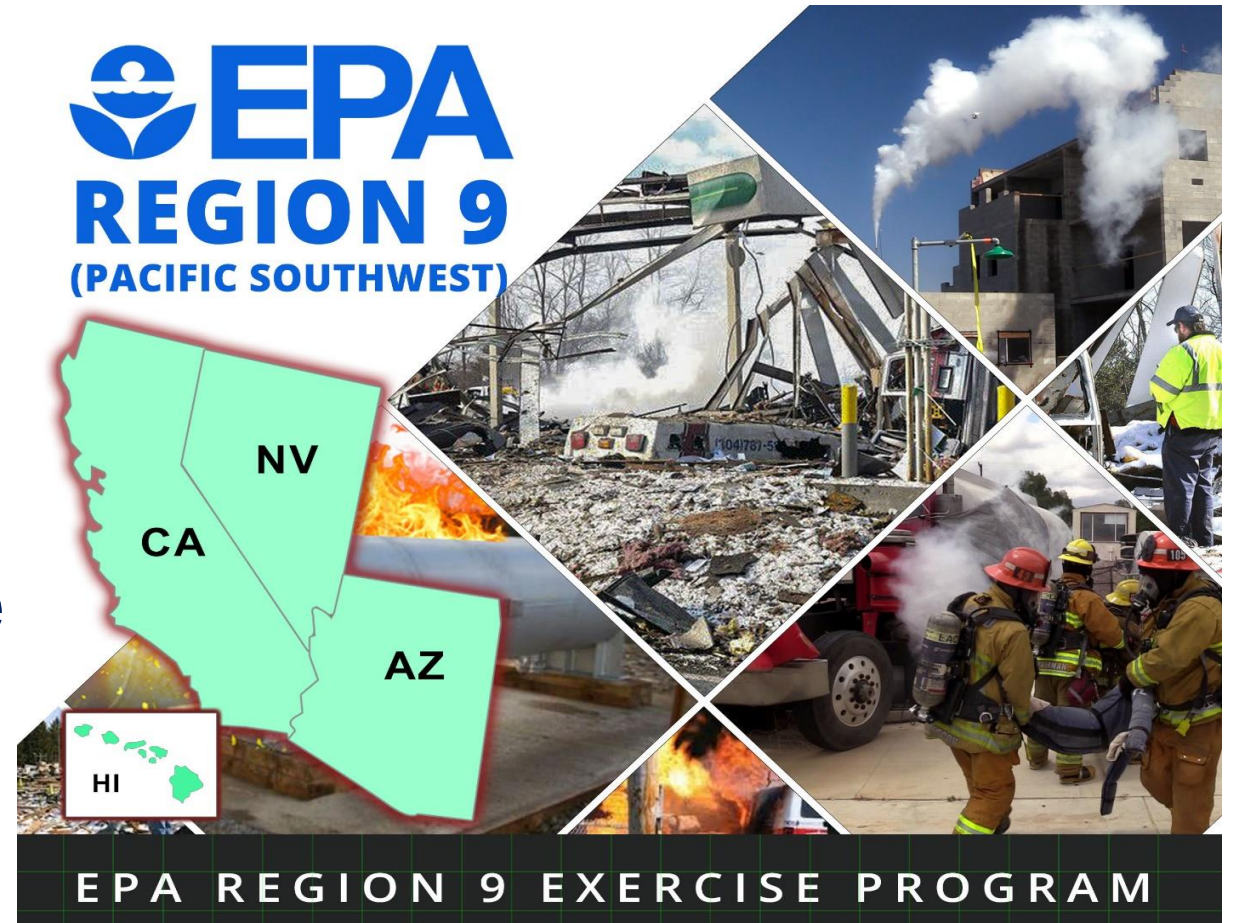
- Fire HAZMAT
- Emergency Management
- Facility Personnel
- Law Enforcement
- Dispatch
- Medical
- Public Health
- SERC/State Partners
- Federal Partners
- Media



TTX Highlights in EPA R9

TTX:

- Coconino County, AZ- Tanker Truck Rollover
- Guam- Chlorine Release
- Clark County, NV- Release From NH3 Cold Storage Warehouse





Coconino County TTX

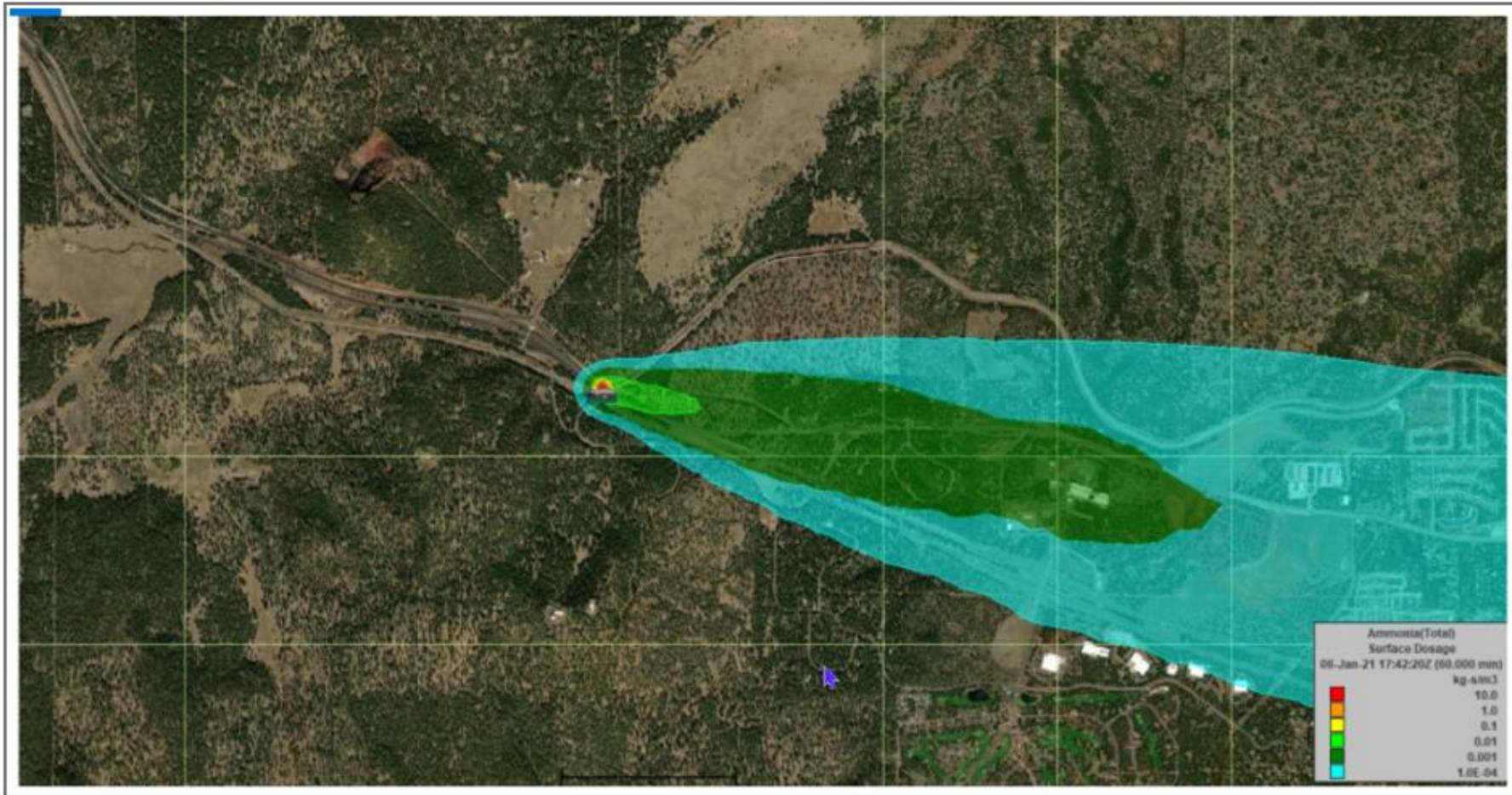
Scenario Description



15:00 hrs. on January 13, 2021: Temperature 55° F, light wind and rain showers predicted for the rest of the day.



Plume Model for Release





IMAAC Exercise Incorporation

CUI
EXERCISE EXERCISE EXERCISE

Date: 14DEC2021 2040Z
Version: Initial Product



IMAAC

**Interagency Modeling and
Atmospheric Assessment Center**

EXERCISE

Ammonia Releases in Las Vegas, NV

(RFI 21-0997U)

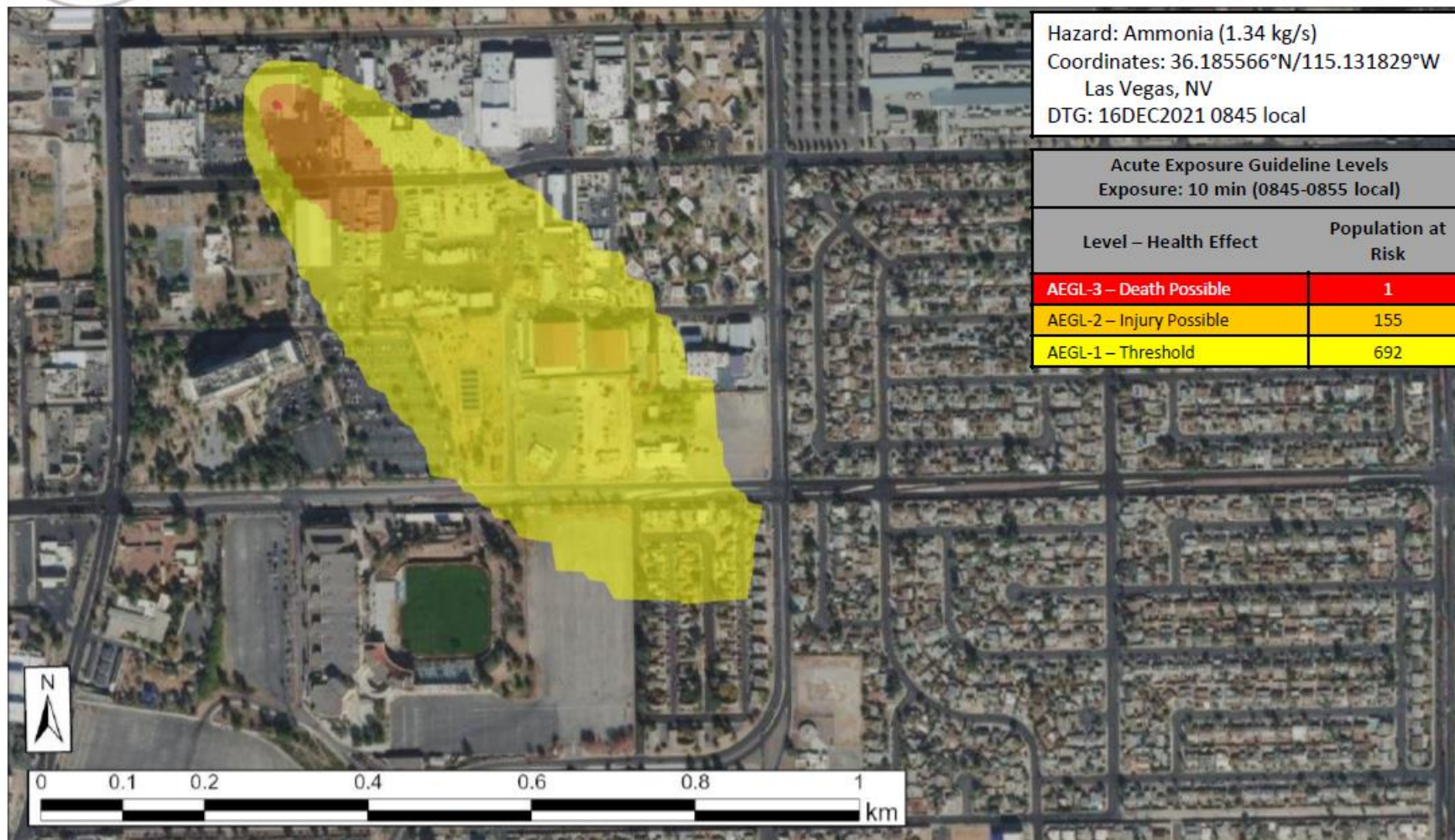


Assumptions & Comments

- Requested release occurs within a building, and the ammonia is released to outside via a fan ventilation system. Exfiltration rate is given as 38,000 cfm (17.9 m³/s). Three concentrations of vapor provided (calculations assume 1 ppm ammonia = 0.75 mg/m³):
 - 10,000 ppm = 0.0075 kg/m³ * 17.9 m³/s = **0.134 kg/s**
 - 50,000 ppm = 0.0375 kg/m³ * 17.9 m³/s = **0.671 kg/s**
 - 100,000 ppm = 0.075 kg/m³ * 17.9 m³/s = **1.34 kg/s**
- Five detector points are provided. For the sake of simplicity, detector locations were kept the same for all three cases. **A separate Excel file contains the detector readings.**
- It is unknown how long exfiltration occurs at each indicated concentration. Concentration plots are provided at one hour to provide a steady-state example of plume extent (though concentration should reach a steady state at about 20 min or so). AEGL effects are shown at 10 min and 1 hr to show the evolution of the human effects over time.

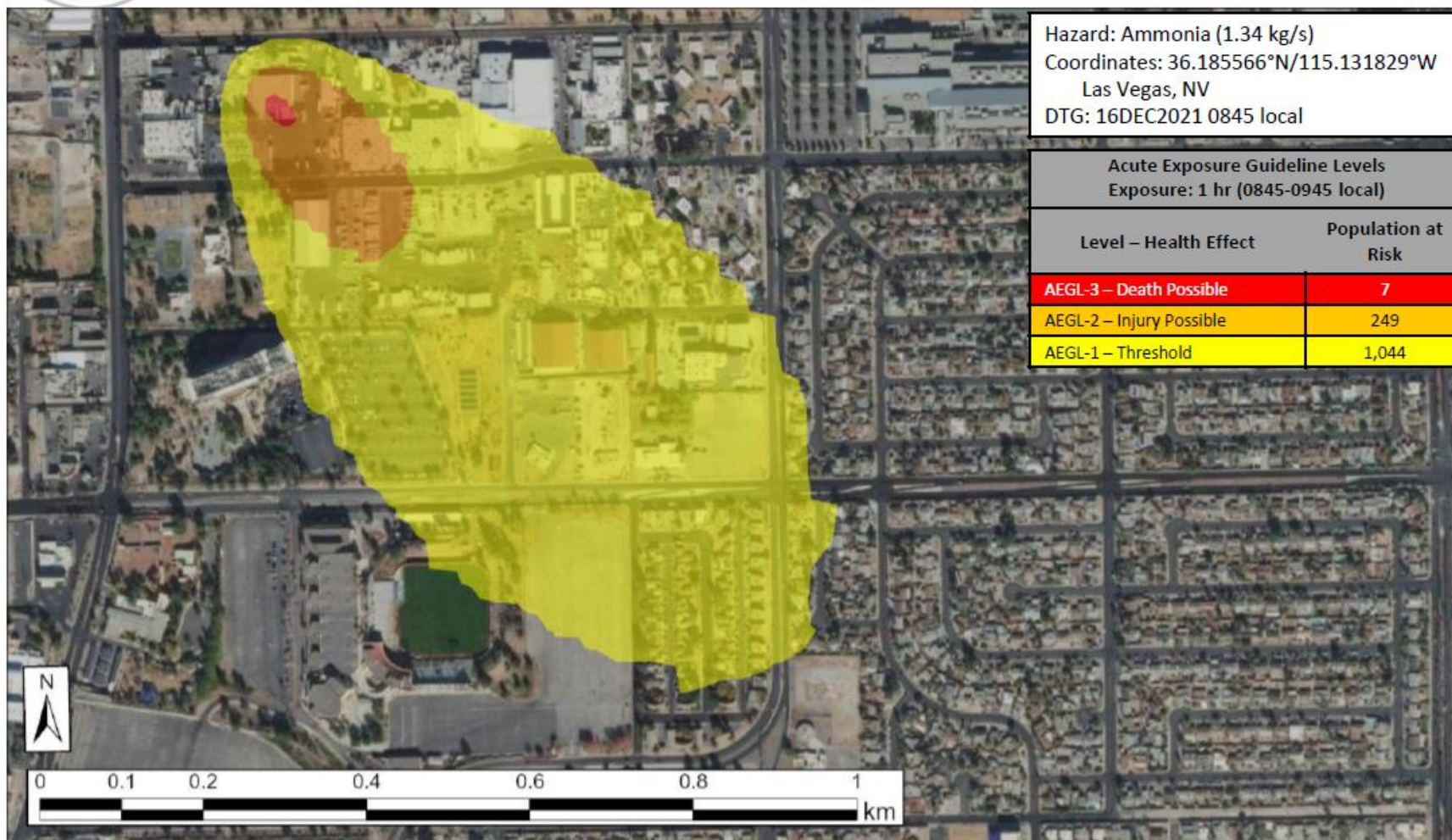


AEGLs at 10 min; 100,000 ppm





AEGLs at 1 hr; 100,000 ppm



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EPA ENVIRONMENTAL RESPONSE TEAM (ERT)

Focus: “Classic Environmental” Emergencies

- Air Monitoring
- Risk Assessment
- Responder Health & Safety (H&S)
- Lab & Analytical Support
- Cleanup Technologies
- Information & Data Management
- Training & Education



≈28 experienced responders + trained contractors

Key Assets include Trace Atmospheric Gas Analyzers (TAGAs), mobile labs, Dive Team, specialized rad gear, information management platforms

EPA

RADIOLOGICAL EMERGENCY RESPONSE TEAM (RERT)

Focus: Radiation Monitoring and Evaluation

- Sampling/Monitoring
- Hazard Evaluation
- Planning Decontamination
- Risk Assessment
- Lab Analysis
- Characterization
- Cleanup
- Waste Disposal



Key Assets include RadNet System, Mobile Environmental Response Laboratory (MERL), Scanner Vans, deployables

EPA

NATIONAL CRIMINAL ENFORCEMENT RESPONSE TEAM (NCERT)

Mission: Provides evidence collection support for environmental crime investigations and law enforcement support/liaison to EPA's OSCs/responders

Liaison between OSC and Federal Bureau of Investigation (FBI)

Focus: Environmental criminal investigations

- All-hazards response (Levels A–D)
- Contaminated crime scene management, processing, and evidence collection/decontamination
- Reach-back to EPA 's National Enforcement Investigations Center in Denver
- Law enforcement support/liaison



CBRN CONSEQUENCE MANAGEMENT ADVISORY TEAM (CMAT)

Mission: Provides scientific and technical expertise for all phases of chemical, biological, radiological, and nuclear (CBRN) environmental consequence management

Focus: Operational preparedness for CBRN agents. Maintain ASPECT aircraft and PHILIS labs

Support: All phases of CBRN environmental response, including characterization, decontamination, clearance and waste management

Buildings, infrastructure, indoor and outdoor environments, transportation sectors



U.S. EPA, REGION IX WATER RESPONSE TEAM

