

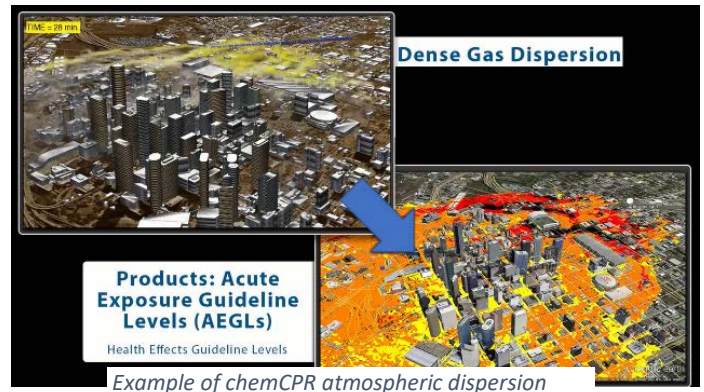


Chemical City Planner Resource (chemCPR)

The Federal Emergency Management Agency (FEMA) Chemical City Planner Resource (chemCPR) is part of a suite of planning tools that focuses on large scale, high-consequence Chemical, Biological, Radiological, and Nuclear (CBRN) release events. The recently completed improvised nuclear device CPR, *iCPR* (in beta testing), focuses on providing effects information to help in response planning for a nuclear detonation in 60 major US cities. The chemCPR will leverage the *iCPR* framework but with the focus on catastrophic, accidental atmospheric chemical releases.

The goal of the chemCPR is to *supplement*, not replace, existing chemical release planning tools such as CAMEO/ALOHA and Interagency Atmospheric Assessment Center (IMAAC) assessments for high-consequence chemical releases. The chemCPR will build on the CAMEO and IMAAC capabilities to help response planners go beyond simple hazard assessment contours on a map by providing animation, detailed community specific visuals, and reports that **incorporate the effects of buildings, terrain, time and spatially varying weather, and gas density** to better describe how a catastrophic chemical event might unfold.

Integration of such factors often provides more details that are important for planning: high concentrations can occur further from the release source than projected by simpler modeling, and may linger after the release has stopped due to accumulation around buildings. More realistic visualization of chemical gas and particulate behavior and relevant impact estimates will help planners and responders better prepare for real world events.



CPR utilizes detailed, computationally intensive impact analysis of several hypothetical releases in a representative set of cities and/or regions. The chemical scenarios will focus on high consequence accidental atmospheric releases (e.g. ammonia, chlorine, and hydrogen fluoride) for locations and scenarios prioritized by the FEMA regions. It is important to emphasize that the chemCPR, like the *iCPR*, is a **strategic planning** tool and not a response tool; the CPR analysis and visuals require significant resources and time to develop and are not practical for real-time response use.

The chemCPR will have an **interactive GIS capability to display HSIP Gold/HIFLD infrastructure data** on customizable maps for reports and presentations. GIS kmz/shapefiles will be downloadable for use by planners. Reports describing **event progression, health and infrastructure impacts, and federal response guidance** will also be produced.

Federal, state, local and Tribal planner outreach is in progress to identify chemCPR tool requirements and chemical release scenario and location priorities, with tool development to begin in early FY19. Questions or requests for additional information may be forwarded to Dante Stellar, CBRN Program Specialist, FEMA Response Directorate, CBRN Office, Dante.Stellar@fema.dhs.gov



Example of *iCPR* reports – will be similar for chemCPR