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EPA Region 8 Emergency Preparedness Newsletter

Volume XII No. 3 August 2021 Quarterly Newsletter

Welcome to the EPA Region 8 Preparedness Newsletter.
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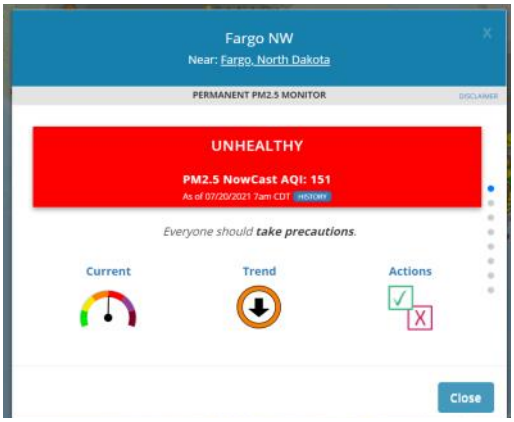
EPA and Forest Service Release Wildfire Smoke Map

As part of EPA's commitment to improve wildfire preparedness, the U.S. Environmental Protection Agency (EPA) and the U.S. Forest Service have released updates to the popular AirNow Fire and Smoke Map to help protect communities across the country from the devastating impacts of wildfire smoke.

"Smoke from increasingly frequent, intense and widespread wildfires in the West is a significant public health threat, and EPA is committed to keeping people safe," said EPA Administrator Michael S. Regan. "The updated Fire and Smoke Map harnesses the power of data and technology to help confront this challenge head on. The updated map provides additional tools to help communities near the front lines better understand their risks from wildfire smoke and the actions they can take to protect their health during wildfire events."

EPA and the Forest Service launched the Fire and Smoke Map as a pilot in 2020 to provide the public information on fire locations, smoke plumes and air quality all in one place. The map quickly became a key wildfire smoke information source for the public, with more than 7.4 million views in the map's first three months.

To give users the most localized air quality information possible, the Fire and Smoke Map pulls data from monitors that regularly report to AirNow, temporary monitors such as those the Forest Service and air agencies have deployed near fires, and crowd-sourced data from nearly 10,000 low-cost sensors that measure fine particle pollution, the major harmful pollutant in smoke. The map also provides easy access to smoke forecast outlooks, which the Forest Service provides when Air Resource Advisors have been deployed to wildland fires.



For 2021, the two agencies have made several improvements to the map based on feedback from state and local air agencies, Tribes, and members of the public. The updates include a "dashboard" that map users will see by clicking on a monitor or sensor. The dashboard gives users quick access to key information that can help them plan their activities: the current Air Quality Index (AQI) category at the monitor/sensor location; information showing whether air quality is getting better or worse; and information about actions to consider taking, based on the current AQI.

The updated Fire and Smoke Map also is more "mobile friendly" for people who visit the AirNow.gov website from a smartphone or tablet. The map will be available as part of the AirNow app in app stores in the coming weeks.

Visit the Fire and Smoke Map at https://fire.airnow.gov/

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OSC Response McCrumb Vessel Salvage

On February 10, 2021, a 50-foot construction barge equipped with a 60,000-pound excavator sank after being buffeted by wind and waves from a strong winter storm in the area. This scene could play out anywhere along the Northeastern Seaboard or along the coast of Alaska but, this time, it occurred in the Rocky Mountains on the southwestern shoreline of Flathead Lake, MT. This type of barge operates year-round on the lake and is used to dig foundations and pilings and create anchor points for docks, boat ramps and wharfs along the shoreline.

It was reported that the vessel was possibly leaking oil and a visible sheen was present on the lake's surface. The main and small auxiliary fuel tank on-board had a combined capacity of 250 gallons and were believed to be intact. The sheen seen on the water was likely being caused by the auxiliary fuel tank located on the deck. The poor weather conditions complicated the vessel recovery and the vessel owner, McCrumb Construction and Marine hired third-party contractors to help salvage the equipment from the lake.

Flathead Lake is the largest natural freshwater lake west of the Mississippi in the lower 48 states, with over 200 square miles of water and 185 miles of shoreline. The southern half of Flathead Lake is within the boundary of the Confederated Salish and Kootenai Tribes Flathead Reservation. The pristine waters provide for numerous recreation activities on and around the lake including sailing, power boating, waterskiing, swimming, fishing, picnicking, and camping. Montana Fish Wildlife and Parks maintains thirteen public access sites around the lake. The major population centers nearby are Kalispell, Bigfork, and Polson.

A report was made to the National Response Center and On-Scene Coordinator (OSC) Eric Sandusky was deployed to the site along with two-members of the US Coast Guard's Pacific Strike Team to provide technical support and oversight of the vessel salvage activities. On February 15, 2021, OSC Sandusky and the Coast Guard Strike Team arrived on site and met with representatives from McCrumb Construction along with their contractors to discuss the salvage plan, safety protocols and logistics.

The weather continued to remain harsh with 40 mile per hour winds and temperatures hovering around 10º F. The team assessed the situation and began with ice removal around the sunken barge. The barge was approximately 20 feet from shore and had continued to sink until a portion of the barge rested on the lake bottom. Approximately 80% of the barge and excavator were submerged. Lake County (MT) brought a containment boom on site for the team to deploy, and efforts began to remove all the pieces of equipment left on the deck or that had fallen to the lake bottom, including a drilling rig, compressor, welder and welding tanks and other tools and equipment.

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OSC Response McCrumb Vessel Salvage, cont'd

By working through the morning under very difficult weather conditions, the crews were able to clear enough ice to gain access to the sunken vessel and deploy both an absorbent boom and a containment boom.

Crews and divers began fitting piping to the float compartments to dewater the hull and achieve buoyancy. Custom-built fittings were fabricated on site to bolt to the hull and allow air and minimal water to flow into the compartments as dewatering occurred. In consultation with the EPA and the US Coast Guard, McCrumb Construction placed flotation bags around the vessel to help float it to a neutral buoyancy.

Early the next day, dewatering operations commenced, continuing through the entire day and well into the evening hours. The mechanics from McCrumb Construction worked through the night and were able to start and operate the boat engines, compressors, dewatering pumps, and a welder.

A follow-up assessment was done on the morning of February 18th to assess the impacts from the sunken barge and it was determined that, with minimal cleaning, little to no long-term impacts were likely. McCrumb Construction with oversight by the county, would monitor the site and wait until sufficient ice melted (expected to be within the following week) to allow for the completion of the clean-up and removal of the booms.

This was the first instance where OSC Sandusky had the chance to work with the US Coast Guard and he remarked "This was a great opportunity for me to collaborate with and to learn from the professionals with the US Coast Guard for an inland oil response on a large body of water, and I really appreciated their expertise and support. Their knowledge of salvage operations was instrumental in protecting the waters of Flathead Lake."

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Evacuation/Shelter in Place Considerations

Deciding whether to evacuate or to shelter-in-place is one of the most critical questions facing local emergency planners responding to a toxic chemical release. This complex decision can have significant consequences yet must be made with urgency. This can place a tremendous burden on the planners and officials involved.

State, local, tribal, and territorial governments have primary authority and responsibility for evacuation and shelter-in-place planning, in conjunction with the whole community. Prior to an incident, jurisdictional governments should engage the whole community (including public/private sectors, community-based service and advocacy organizations, nongovernmental organizations, faith-based organizations, nonprofits, and individuals and families) to conduct awareness briefings and preparedness training, including "know your zone" training and campaigns, so that stakeholders are familiar with what is expected of them during each type of protective action. Additionally, for each protective action, jurisdictions should create clear and accessible messaging in alternative formats, including social media. This messaging should advise the public on necessary actions, including anything specific to the threat or hazard that is impacting their community (e.g., anticipated flooding, hazardous material exposure, expected loss of power). Jurisdictions should establish, publicize, and periodically test a community warning system. Jurisdictions should also monitor social media to identify and attempt to correct rumors or inaccurate accounts of the situation.

Jurisdictional Government Responsibilities:

1. Set clear expectations for whole community partners by hosting education, training, and information sessions;
2. Establish and publish clear, accessible evacuation routes and zones for the community, as well as alternate routes in areas with changing evacuation dynamics;
3. Identify evacuation shelters in the community, as well as shelters where evacuees can go in other communities if needed and work with those neighboring communities to establish notification and operations procedures;
4. Create pre-approved accessible messaging for rapid distribution regarding incident and shelter-in place or evacuation instructions;
5. Have a continuity plan to help maintain response operations if interrupted;
6. Provide real-time mapping and navigation routing systems through Geographic Information System (GIS) and supported private sector features, such as the Waze Connected Citizens program.

Conceptually, the evacuation/in-place protection decision is simple and revolves around two questions:

1. Will shelter-in-place provide adequate protection?
2. Is there enough time to evacuate?

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Evacuation/Shelter in Place Considerations

DETERMINING THE LEVEL OF PROTECTION OFFERED BY PROTECTIVE ACTIONS

The ability of a protective action to adequately protect people in an affected area throughout the duration of the emergency depends on the characteristics of the toxic chemical(s) involved, the size and nature of the release, meteorological conditions, the characteristics of the population affected, and the ability of available structures in the area to provide protection from outdoor chemical concentrations. For shelter-in-place, the emergency planner must be able to predict the outdoor plume concentration of the toxic chemical(s) that will occur in the risk area, estimate the concentration that will occur inside the buildings in which people seek shelter, and calculate the indoor estimated level of exposure.

STEP 1: DETERMINE THE CHARACTERISTICS OF THE RELEASED CHEMICAL

Characteristics of the chemical influence the nature of the release and are important considerations in determining whether evacuation or in-place sheltering will provide adequate protection. The form (liquid, aerosol, or vapor), the density, and the vapor pressure of the chemical influences the speed and concentration with which it will be released into the atmosphere and how far the plume or cloud will travel before dissipating. These are important factors in determining whether people will have time to evacuate before the arrival of a dangerous chemical concentration.

The nature of the hazard posed by the chemical is a factor in assessing the effectiveness of shelter-in-place protection. Considerations include the degree of health hazard (level of toxicity), the dangerous dosage or concentration, and the nature of the toxic load (peak concentration or time-integrated dosage). In-place sheltering is effective at reducing peak concentrations for a limited time, but may be less effective at reducing the cumulative dose over a longer period. In addition, in-place sheltering is unlikely to provide adequate protection for chemicals that are dangerously flammable or explosive in the atmosphere.

STEP 2: DETERMINE THE CHARACTERISTICS OF THE RELEASE

The amount of chemical released (or expected to be released) into the environment, the rate of release and expected changes in the rate, and the expected duration of the release are important factors in evaluating the effectiveness of shelter-in place protection. The amount of chemical released and the rate of release are among the determinants of the outdoor concentration that, in turn, is a major determinant of the 6 indoor concentration. The expected duration of the release is significant because shelter-in-place protection is most effective at reducing indoor concentrations associated with a short-term release. For a longer-term release, more of the chemical will seep into the sheltering structures, thus resulting in higher indoor concentrations and longer exposures for people sheltering.

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Evacuation/Shelter in Place Considerations

STEP 3: DETERMINE POTENTIAL METEOROLOGICAL CONDITIONS AT THE SITE

Wind speed and direction are important in determining which areas will be affected and how long it will take the chemical to reach them. In addition, wind speed influences the ability of a structure to provide protection from contamination. The higher the wind speed, the more quickly a chemical vapor will infiltrate a structure and raise concentrations to dangerous levels. Temperature is also a consideration; the greater the difference in inside and outside temperatures, the more quickly the chemical will infiltrate the structures providing protection. Inversion conditions may also be important, causing a chemical plume to travel closer to the ground and dissipate less rapidly if not impeded by vegetation.

STEP 4: COLLECT DATA ON STRUCTURES SURROUNDING THE FACILITY

Data gathered during the planning process can be used to assess the protective effectiveness of structures in the area surrounding the chemical facility. Are there mostly older wooden frame buildings or newer more energy efficient (airtight) houses in the area at risk? If the structures surrounding the chemical facility are old and in poor condition, and have not been weatherized, it is likely that they will have high air exchange rates and provide little protection from a chemical vapor release. It may be feasible, however, to recommend evacuation for residents in zones where housing is leaky and in-place sheltering for zones where houses are more airtight. In such situations it is extremely important to convey to the public why two different actions are being recommended.

STEP 5: ESTIMATING THE TIME AVAILABLE BEFORE THE AREA IS CONTAMINATED

The characteristics of the release and weather conditions largely determine the amount of time available before an area becomes contaminated. The timing of the release; when it occurred or is expected to occur and the distance of the release from the inhabited area are the principal release characteristics affecting the time available before contamination reaches the area. These factors, along with wind direction and wind speed, indicate which areas are likely to be contaminated by a release and how long the chemical will take to reach a specific area. In addition, the emergency planner should consider the amount of chemical released and the rate of release to estimate the expected variation in concentration over time.

FEMA

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Evacuation/Shelter in Place Considerations

STEP 6: ESTIMATING THE TIME REQUIRED FOR IMPLEMENTING PROTECTIVE ACTIONS

Evacuation is a complex undertaking requiring the coordination of a wide variety of factors. Estimating the time that would be required to evacuate an area affected by a release of toxic chemical makes use of various types of information, many of which can be collected beforehand. Adequate time must be allowed for all phases of the evacuation, including: 1) reaching an official decision to evacuate, (2) mobilizing community evacuation resources, (3) communicating appropriate protective action instructions to the public, (4) individual mobilization of resources to leave the area at risk, and (5) Completing the physical evacuation of people occupying the affected area. The time required to reach a decision and to mobilize resources depends, to a large extent, on the quality of emergency response pre-planning, although planners and decision makers will certainly have to deal with unique aspects of the situation at-hand. Research indicates that, once a decision is made to protect the public, a considerable amount of time (up to one to two hours using conventional warning practices) may elapse before most people in the affected area hear, absorb, and decide to respond to the instructions. Innovative design of the alert/warning system along with an effective public education program will minimize, but not eliminate, the delay.

There are a few clear case situations in which either evacuation or sheltering is clearly preferred. These include the following cases:

- When no fatalities are expected, either protective action is feasible.
- When people can be evacuated before plume arrival, evacuation is preferable.
- When conditions make evacuation impossible, shelter is preferable.
- When releases are extremely short, sheltering is preferable.
- When releases are extremely long, evacuation is preferable.
- When the public may refuse to take an action, the choice may be limited to one alternative.

For More Information:

Oak Ridge National Laboratory; Planning Protective Action Decision-Making: Evacuate or Shelter-in-Place?

FEMA; Improving Public Messaging for Evacuation and Shelter-in-Place

FEMA; Planning Considerations: Evacuation and Shelter-in-Place

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EPCRA Video Released

This training video aims to raise awareness of the Emergency Planning and Community Right-to-Know Act (EPCRA) to new generations of planners and responders, state, tribal, and local political officials, emergency management leadership and the public. It presents a basic level of understanding of the roles and requirements of EPCRA to maintain effective participation to protect communities from chemical accidents.

To view the video, click on this link: EPCRA Video

EPA Covid Resources

EPA Resources for State, Local, and Tribal Governments

EPA is updating its coronavirus website to include new resources for state, local, and tribal agencies and intergovernmental associations. These resources will help EPA and its partners continue to provide the environmental protection the nation depends on without interruption during the coronavirus public health emergency.

EPA's Coronavirus (COVID-19) Resources for State, Local, and Tribal Agencies and Associations contains important information on grants, enforcement and compliance programs, water infrastructure, and a host of other issues important to effective environmental program delivery. The webpage will be updated regularly with new information.

EPA is also continuing to update resources on its website and add to the list of surface disinfectant products that are effective against SARS-CoV-2. To contact EPA about any Coronavirus (COVID-19) issue, you may do so here: https://www.epa.gov/coronavirus/forms/contact-us-about-coronavirus-covid-19.

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TRANSCAER

TRANSCAER
(Transportation Community Awareness Emergency Response) is a national outreach program. Since 1986, the organization has focused on assisting communities to prepare for and respond to a possible hazardous material transportation incident. The TRANSCAER program is led by industry professionals who volunteer their time to support our mission.

TRANSCAER volunteer members come from a variety of sectors in the industry, including: Chemical Manufacturing, Transportation, Distribution, Industry & Industry Associations, Emergency Response, and Government.

The TRANSCAER Purpose

- Promote safe transportation and handling of hazardous materials
- Educate and assist communities near major transportation routes about hazardous materials
- Aid community emergency response planning for hazardous material transportation incidents

TRANSCAER Services

To fulfill our mission and purpose, TRANSCAER offers a variety of services to communities and to emergency responders.

Planning Assistance
Local communities get our assistance to better understand and plan for hazmat transportation emergencies.

Hazmat Training
Free hazmat training is available in multiple styles including classroom, hands-on, and online.

Drills and Exercises
Help communities plan drills and exercises to improve the response and handling of hazmat emergencies.

Reference and Training Materials
Technical information about chemicals and transportation equipment is made available for both training and emergency response.

Local Resources
Regional and state coordinators work to implement the TRANSCAER mission and help connect local responders with the resources they need.

For EPA Region 8 training requests contact:

Dillon Conner, Wyoming Regional Emergency Response Team 7

Phone 307-214-3993, Mobile 307-214-3993 email: dillonconner1@gmail.com

For more information, see www.transcaer.com

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CISA Training

The **Cybersecurity and Infrastructure Security Agency (CISA) Region 8** cordially invites you to the **Voluntary Chemical Sector Webinar held on August 17th at 10:00 – 11:00 a.m. Mountain Daylight Time**.

Chemical Sector facilities manufacture, store, use, and transport potentially dangerous chemicals. Securing them against growing and evolving threats requires vigilance from both the private and public sector. CISA serves as the Chemical Sector Management Team, working with companies nationwide to develop tools and resources for assessing facility security and resilience.

During this webinar, we will discuss:

- Department of Homeland Security Chemical Sector Resources and Initiatives
- Chemical Partnership Environment and Mechanisms
- Industry Engagement and Outreach Opportunities
- Physical and Cybersecurity Resources

And more!

EVENT INFORMATION

- **Date**: Tuesday, August 17, 2021
- **Time**: 10:00 am – 11:00 am MT

Registration Link: Region 8 Chemical Sector Webinar

INTENDED AUDIENCE

Private and public sector critical infrastructure owners and operators, LEPC members, chemical manufacturers and affiliates, chemical distributors, chemical associations, emergency managers, public/environmental health professionals, HAZMAT, law enforcement/first responders, etc.

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EPA Updates and Training

Risk Management Program Virtual Public Listening Sessions

EPA is reviewing the Risk Management Program (RMP) rule in accordance with Executive Order 13990: Protecting Public Health and the Environment and Restoring Science To Tackle the Climate Crisis (EO 13990). In addition to accepting written comments, EPA held a virtual public listening session which provided interested persons the opportunity to present information, comments or views pertaining to the review of RMP regulation revisions completed since 2017 (including the 2017 Final Amendments to the RMP Rule and 2019 Final RMP Reconsideration Rule). The Occupational Safety and Health Administration (OSHA), which administers the Process Safety Management (PSM) standard, also participated in the sessions to receive comments on the PSM standard. The PSM topics considered in the 2013 Request for Information (RFI) and 2016 Small Business Advocacy Review (SBAR) panel are in the respective links. EPA and OSHA will work together to coordinate changes to the RMP rule and PSM standard. Learn more about the listening session on our website.

Overview of Spill Prevention, Control, and Countermeasure Regulation (SPCC) and Emergency Planning and Community Right-to-Know Act (EPCRA) Webinar for Tribes

EPA's Office of Emergency Management will provide a basic overview of the prevention and preparedness programs for oil spills under SPCC and chemical emergencies under EPCRA. The objective is to provide attendees with a general awareness of the SPCC and EPCRA programs and their associated regulatory requirements. The 1.25-hr session will also include a question and answer segment where participants will be able to interact with the SPCC and EPCRA national program managers. To register: Wednesday, September 15 at 1:00 PM EDT

RMP Reconsideration Rule

The RMP Reconsideration Rule has been in effect since December 2019 but are you aware of upcoming deadlines? Consult the chart below for those provisions either already in effect or coming up. More details can be found at the RMP website.

What	Due Date
Public Meetings	Within 90 days of any qualifying accident that
Comply with new emergency coordination requirements	Already in effect as of September 21, 2018.
Comply with remaining minor accident prevention provisions	Already in effect as of September 21, 2018.
Develop Emergency Response Programs	Within 3 years of owner/operator determining facility is subject to RMP provisions.
Develop exercise plans and schedules	December 2023

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Chemical Emergency Preparedness and Prevention Documents

EPCRA Requirements: http://www.epa.gov/epcra

NRT Hazardous Materials Emergency Planning Guidance: https://www.nrt.org/Main/Resources.aspx?ResourceType=Hazards%20(Oil,%20Chemical,%20Radiological,%20etc)&ResourceSection=2

Actions to Improve Chemical Facility Safety and Security – A Shared Commitment: https://www.osha.gov/chemicalexecutiveorder/index.html

EPCRA On-Line Training: https://www.epa.gov/epcra/epcra-non-section-313-online-training-states-tribes-lepcs-local-planners-and-responders

EPCRA Fact Sheets: https://www.epa.gov/epcra/epcra-fact-sheets

EPCRA Regional Contacts: https://www.epa.gov/epcra/epcra-regional-contacts

EPCRA, RMP & Oil Information Center: https://www.epa.gov/epcra/forms/contact-us-about-emergency-planning-and-community-right-know-act-epcra

TIER2 Submit: https://www.epa.gov/epcra/tier2-submit-software

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EPA Region 8 Preparedness Program

We will increase EPA Region 8 preparedness through:

- Planning, training, and developing outreach relations with federal agencies, states, tribes, local organizations, and the regulated community.

- Assisting in the development of EPA Region 8 preparedness planning and response capabilities through the RSC, IMT, RRT, OPA, and RMP.

- Working with facilities to reduce accidents and spills through education, inspections, and enforcement.

To contact a member of our Region 8 EPA Preparedness Unit team, review our programs or view our organization chart, click this link.

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South Dakota
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Contact: Kelsey.Newling@state.sd.us

Wyoming
Mr. Dale Heggem, Chair
Phone: 307-777-7321
dale.heggem@wyo.gov

RMP Region 8 Reading Room: (303) 312-6345

RMP Reporting Center: The Reporting Center can answer questions about software or installation problems. The RMP Reporting Center is available from 8:00 a.m. to 5:30 p.m., Monday - Friday:(703) 227-7650 or email RMPRC@epacdx.net.

RMP: https://www.epa.gov/rmp **EPCRA:** https://www.epa.gov/epcra

Emergency Response: https://www.epa.gov/emergency-response

Lists of Lists (Updated August 2020)

Questions? Call the Superfund, TRI, EPCRA, RMP, and Oil Information Center at (800) 424-9346 (Monday-Thursday).

To report an oil or chemical spill, call the National Response Center at (800) 424-8802.

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800-227-8917

This newsletter provides information on the EPA Risk Management Program, EPCRA, SPCC/FRP (Facility Response Plan) and other issues relating to Accidental Release Prevention Requirements. The information should be used as a reference tool, not as a definitive source of compliance information. Compliance regulations are published in 40 CFR Part 68 for CAA section 112(r) Risk Management Program, 40 CFR Part 355/370 for

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