

## Madison-Kipp Corporation FIRE/SAFETY/OSHA TIMELINE January 1990-February 2014

1990—1 fire; 1 OSHA violation

1992—2 zinc metal dust/molten metal fires

1993—10 OSHA violations (8 serious)

1994—1 zinc filing fire; 3 OSHA violations (all serious)

1996— 1 metal shavings fire

1998—18 MFD calls (12 EMS, 3 system malfunctions, 1 smoke, 1 false alarm, 1 no details); 8 OSHA violations (all serious)

1999—13 MFD calls (11 EMS, 2 fires)

2000—13 MFD calls (8 EMS, 4 alarms, 1 fire); Fire involved spill of 50,000 lbs of molten aluminum; factory closed for several days

2001—18 MFD calls (12 EMS, 3 alarms, 1 fire, 1 arcing wires, 1 odors); OSHA referral after worker finger amputated

2002—11 MFD calls (8 EMS, 2 alarms, 1 grass fire in nearby park); 1 OSHA violation (serious)

2003—16 MFD calls (10 EMS, 4 alarms, 1 fire, 1 burning vinyl odor)

2004—6 MFD calls (4 EMS, 2 fires, including 1 transformer fire)

2005—8 MFD calls (4 EMS, 3 alarms, 1 propane leak); 3 OSHA violations (all serious)

2006—8 MFD calls (4 EMS, 2 alarms, 1 fire, 1 smoke); 40 OSHA violations (30 serious); Fire caused by metal shavings on ceiling beam ignited by grinder sparks; Worker has all fingers on one hand amputated

2007—6 MFD calls (4 EMS, 1 fire/explosion, 1 “good intent”); 1 serious OSHA violation; Al/Mg filtration unit explosion and fire

2008—5 MFD calls (3 EMS, 1 fire, 1 alarm); Fire in metal dust hopper

2009—8 MFD calls (5 EMS, 3 alarms)

2010—16 MFD calls (12 EMS, 1 fire/explosion, 1 smoke, 1 alarm, 1 “good intent”); fire from molten metal dumped in scrap bin

2011—9 MFD calls (7 EMS, 2 alarms); 2 OSHA violations (both serious); 1 OSHA complaint; Amputation, hot Al splashed on worker

2012—10 MFD calls (6 EMS, 2 alarms, 1 bomb threat, 1 vehicle accident)

2013—3 MFD calls (2 EMS, 1 no details)

2014 (Jan and Feb only)—4 MFD calls (1 EMS, 3 alarms)

OSHA: Occupational Safety and Health Administration

MFD: Madison Fire Department (No MFD reports available before 1998; reports from 1990-1997 are from media reports)

EMS: Emergency Medical Services

### **GRAND TOTAL (approximates due to gaps in available records)**

From 1998-Feb. 2014: 172 MFD calls (113 for emergency medical services)

From 1990-present: 69 OSHA violations—some later “deleted” after MKC lawyers negotiated

**Types of EMS calls (MFD reports have few details, especially after 2004):** chest pains (listed many times), difficulty breathing (also listed frequently), dizziness, possible heart attacks or seizures, passed out from heat, fainting/ low blood pressure, workers requiring oxygen, lacerations/loss of blood, finger amputations, fingers crushed or caught in machine, molten metal burns, burns from propane explosion, hit by fork lift, pinned by forklift, hit over head, falls, sprains, and more

### **Types of OSHA Violations (partial list):**

1990: guarding of portable power tools; 1994: control of hazardous energy, hand & portable power tools, general requirements; 1998: control of hazardous energy, guarding of floor wall openings & holes, wiring methods, components & equipment, bloodborne pathogens, general requirements; 1999: guarding floor & wall openings & holes; 2002: sanitation; 2005: general requirements, sanitation wiring methods, components & equipment; 2006: process safety management of highly hazardous chemicals (14 violations), hazardous waste operations and emergency response (7 violations), respiratory protection (5 violations), control of hazardous energy (3 violations), medical services and 1<sup>st</sup> aid, hazard communication, selection and use of work practices, hand & portable powered tools & equipment; 2007: ventilation; 2011: powered industrial trucks, gen. requirements for machines

## **Emergency Planning and Community-Right-To-Know (EPCRA)**

MKC uses, stores, transports, and releases many highly hazardous chemicals, and is required to follow Emergency Planning and Community-Right-To-Know laws—see [here](#) for federal regulations and [here](#) for Dane County. Hazardous chemicals at Kipp include chlorine, propane, sodium hydroxide, nitrogen, fluorides, molten aluminum, fuel oils, lubricants and many more. The use, storage, and transport of chlorine are among the most potentially dangerous situations at and around Kipp. According to the “Hazardous Materials Incident Initial Response Guidelines” for Madison Kipp, “the worst-case scenario would involve chlorine being released directly to the outside of the facility during transport.”

**Chlorine’s health effects:** Permissible Exposure Level--1 ppm; detectable odor threshold--over 1 ppm; 3-5 ppm--slight irritation of the nose and upper respiratory tract; 5-8 ppm--irritation of the respiratory tract and eyes; 10 ppm-- immediately dangerous to life and health; 15-20 ppm--immediate severe irritation of the respiratory tract, intense coughing and choking; 30 ppm--shortness of breath, chest pain, possibly nausea and vomiting; 40-60 ppm--development of chemical bronchitis and fluid in the lungs, chemical pneumonia. Prolonged exposure over 50 ppm will cause unconsciousness and death.

Two types of “vulnerability zones” for chlorine accidents at Kipp were modeled in Kipp’s Haz Mat Guideline document. One is the area in which chlorine levels could reach 1/10 of the IDLH (immediately dangerous to life and health)—or the level that “poses a threat of exposure to airborne contaminants when that exposure is likely to cause death or immediate or delayed permanent adverse health effects or prevent escape from such an environment.” The 1/10 factor is added to protect especially vulnerable people, such as those with respiratory disease or illness. The IDLH for chlorine is 10ppm so the 1/10 IDLH is 1ppm. An alternative vulnerability zone based on ERPG-2 (Emergency Response Planning Guidelines), or “the maximum airborne concentration below which it is believed that nearly all individuals could be exposed for up to one hour without experiencing or developing irreversible or other serious health effects or symptoms which could impair an individual’s ability to take protective action.” The ERPG-2 for chlorine is 3 ppm.

Vulnerability zones for chlorine releases are: 3.1 miles at 1 ppm (1/10 IDLH), 1.9 miles at 3 ppm (ERPG-2) “in the worst case scenario, dangerous or deadly levels of chlorine contamination may reach a distance of between .1 and .25 miles downwind of the source within a matter of minutes following the initial release.” Later, the document states that “The lead time for a HAZMAT incident could be from 15-40 minutes. As a result, this short time may not allow for a safe evacuation...An evacuation under these circumstances may expose the population to dangerous toxic chemicals and the decision may be made to shelter-in-place.” The document then lists 11 “shelter-in-place” recommended instructions.

### **Do you live in the Kipp Neighborhood? If there is a chlorine accident at Kipp or an accident involving a chlorine truck on a street in the neighborhood:**

- How will you know? Is there any system in place to immediately notify you and others in the neighborhood?
- Do you/your family know what the “shelter-in-place” steps are? Do staff at Goodman Community Center/Lowell School?
- Is the community prepared? Are people near Kipp even aware that the potential exists for such an accident?

**If you live in the Kipp neighborhood, contact your elected officials, public health agencies, Madison Fire Department and OSHA, with questions. Ask them to look into whether Kipp is following EPCRA laws. Ask them to initiate a public meeting to help prepare residents, schools, and community centers for a chlorine and/or other hazardous chemical accident at or around Kipp.** Always include your street address when contacting your political representatives.

Madison Alder Marsha Rummel: 608-772-4555, [district6@cityofmadison.com](mailto:district6@cityofmadison.com)

Senator Fred Risser: (608)266-1627, [sen.risser@legis.wisconsin.gov](mailto:sen.risser@legis.wisconsin.gov)

Representative Chris Taylor: (608) 266-5342, [Rep.Taylor@legis.wisconsin.gov](mailto:Rep.Taylor@legis.wisconsin.gov)

John Hausbeck (Epidemiologist, Madison Dane County Public Health): 608.243.0331, [JHausbeck@publichealthmdc.com](mailto:JHausbeck@publichealthmdc.com)

Henry Nehls-Lowe (Epidemiologist, Department of Health Services): 608-266-3479, [Henry.NehlsLowe@dhs.wisconsin.gov](mailto:Henry.NehlsLowe@dhs.wisconsin.gov)

Dave Bursack, [Dane County Local Emergency Planning Committee](#): 608-266-9051,

[Madison Fire Department](#): 608-266-4420, [fire@cityofmadison.com](mailto:fire@cityofmadison.com)

[Occupational Safety and Health Administration \(Madison Office\)](#): (608) 441-5388