

# Upper Mississippi River Hazardous Spills Coordination Group

April 6-7, 2016  
Moline, Illinois

## Meeting Summary

### Participants

Roger Lauder	Illinois EPA
Joe Sanfilippo	Iowa DNR
Dorene Fier-Tucker	Minnesota PCA
Rick Gann	Missouri DNR
Brenda Kelly	Wisconsin DNR
Tom Kendzierski	Wisconsin DNR
Lisa Olson-McDonald	Wisconsin Emergency Management
Adam Davis	NOAA
Leo Keller	USACE, Rock Island District
John Punkiewicz	USACE, Rock Island District
Frank Catalano	USACE, St. Louis District
Joachim Boyles	USCG, Atlantic Strike Team
Chad Lovato	USCG, Atlantic Strike Team
Ori Martinez	USCG, MSD Quad Cities
Garrett Ragland	USCG, MSD Quad Cities
Lee Damon	USDOT, FRA
Kirk Gill	USDOT, FRA
Mark Razny	USDOT, PHMSA
Steve Faryan	USEPA, Region 5
Barbi Lee*	USEPA, Region 5
David Morrison*	USEPA, Region 5
Joe Davis	USEPA, Region 7
Annette Trowbridge	USFWS
Aleshia Kenney	USFWS
Mary Stefanski	USFWS
Matthew Cole	Alliant Energy
Nic Winslow	BNSF Hazmat
Dillon Magers	BNSF Railway
Chad Livingston	CP Rail
Colin McWilliams*	Kennedy/Jenks Consulting
Jim Holland	Pinnacle Engineering
Steve Schleicher	Pinnacle Engineering
Cory Teff	Pinnacle Engineering
Chris Bieller*	Seneca Companies
Matt Stokes	STARS Training
Dave Hokanson	UMRBA
Mark Ellis	UMRBA
Matt Jacobson*	UMRBA
Molly McDonald*	UMRBA

\*Participated by phone.

## **Call to Order and Introductions**

The meeting was called to order at 1:02 p.m. by Chair Rick Gann. Introductions of all participants followed.

## **Approval of Previous Meeting Summary**

The summary of the October 21-22, 2015 UMR Spills Group meeting was approved without modification.

## **Case Study Presentations**

### *Galena, Illinois Derailment – Federal Railroad Administration Activities*

Kirk Gill began his presentation with an overview of the Federal Railroad Administration (FRA). He described it as a relatively small agency whose mission includes a focus on rail safety. He said FRA can follow up on complaints and reports from the public, and has discretion in identifying defects and/or issuing violations, explaining that the agency has a number of tools it can apply in a noncompliance situation.

Gill then moved to a summary of the Galena, Illinois derailment that occurred in March 2015. He noted that the derailment occurred in a remote location near the Mississippi River and that the derailed cars compacted into an approximately 75 yard-long area. Gill added that none of the released product reached the Mississippi River. He said the derailment initially caused a small fire which then grew into a larger fire.

In terms of FRA's response, Gill said FRA received initial notification via the National Response Center (NRC) and eventually a total of 17 FRA staff were involved on site. He explained that the National Transportation Safety Board (NTSB) did not engage in the incident. As such, FRA led the investigation into the cause of accident. Gill said if NTSB had been engaged, then FRA would have stepped back and supported NTSB's investigation.

Gill said the investigation initially looked a track condition/structure, but did not find an explanation there. Focus then shifted to mechanical problems and a broken wheel was ultimately identified as the causative factor. This conclusion was supported by the identification of marring on the track six miles back from the derailment site. Additional pieces of the wheel were found that indicated damage.

Gill explained that it was likely that, with the wheel compromised, the train could not negotiate the turn-out and this led to the initial car derailment. Then, the track structure became compromised, leading to additional derailments.

Regarding the response to the derailment, Gill offered the following observations:

- Overall, there was good collaboration and teamwork during the response.
- One of the lessons learned was to stagger staff time assignments. In this case, all the FRA staff had shown up at the same time and then had to wait to access the site. Since all employees were essentially working during the same time period, all began to tire in a similar time frame. Gill said it would have been much better to schedule in staggered rest periods so that staff would have been less fatigued.
- It is important to keep an open mind regarding the potential cause of the incident and be aware of any assumptions you may be carrying regarding causes.

Tom Kendzierski asked whether FRA had any explanation as to why the wheel had failed. Gill replied that some shelling appeared to have occurred before the wheel failed. He added that this kind of defect may be very difficult to identify during an inspection. Gill noted that a report on the derailment should be available to the public in approximately one month.

### *Brownsville, Minnesota Derailment*

Steve Faryan described the derailment which took place along the Mississippi River near Brownsville, Minnesota on January 26, 2016. He said a total of 15 cars derailed along the bank of the Mississippi River within the Upper Mississippi National Wildlife and Fish Refuge. Of these, tankers containing vegetable oil lost product via sheared vent valves, with some of the oil reaching the river, and sodium chlorate was released to the ground from hopper cars. In addition to these products, the train also included grain shipments. While the specific amount oil reaching the river is not known, it is estimated to be approximately 800 gallons.

Faryan said resource concerns included the possibility of endangered Higgins Eye Pearly Mussel in the area and impacts to mussel beds generally, noting that dead mussels were found on a tanker removed from the river. Also, there was concern with vegetable oil traveling downstream to an open water area where waterfowl were present. Additionally, the potential for saline stress to aquatic life from release of sodium chlorate was an issue.

Faryan said USEPA was pleased with the notification process associated with the incident, which included use of the UMR plan notification protocol with additional information distributed via the UMR email listserv. He described the response and recovery process undertaken by CP Rail and its contractors, including ice-based recovery techniques. Faryan said the Brownsville Fire Department was on scene and was joined by the Winona Fire Department. Chad Livingston noted that CP has made an effort to have equipment staged in this area, which was beneficial during this incident.

Matt Stokes commented that there had just recent been training with the CAER groups in the area in regard to ice response, which turned out to be very timely and helpful in light of this incident. He added that this oil type had some different characteristics than other oils. Jim Holland concurred, noting that this was a light oil that broke up quickly, making it very difficult to recover and creating a “spray” pattern of dispersion in the relatively cold weather.

David Morrison said reconnaissance was particularly important in this incident as it was not immediately apparent what the trajectory of the spilled product would be. Livingston commented that divers were employed to assess the condition of the derailed tankers, noting that they discovered an additional leak in the process which was addressed using a patch. Holland agreed with the value added by the divers, who were contracted from Brennan Marine. He observed that, in a way, the ice was helpful during this incident, in that the energy from the derailment went into breaking the ice rather than breaking the cars themselves.

Stokes stressed the importance of maintaining safe working conditions throughout the response, saying that everyone near the response site needed to be positively buoyant due to the risk of going through the ice. He also noted that some of the experience gained in the Galena incident was applied here, particularly in regard to the development of a plan for upstream and downstream monitoring. Holland added that USFWS was consulted in the development of the monitoring plan.

Regarding the sodium chlorate, Holland said only about 3 drums of the product was lost, but that it is very tricky product to handle. Livingston concurred, saying that if it becomes wet, then dries, it becomes friction-flammable. As a result, PPE contamination with this product is a major concern. He explained that the chemical is used in paper processing and is typically shipped in aluminum cars due to its reactivity. However, aluminum cars are not as strong as typical cars, posing a challenge for car removal. As a result, Livingston said, specialized equipment was employed to remove the product from damaged cars – a process which took 36 hours per car. Stokes added that pallet platforms were constructed to aid in responder decontamination.

Regarding command structure, Faryan explained that the response was initially led by CP Rail, and then moved to a unified command in the incident's third day. He said incident command established the following incident objectives:

- 1) Safe offloading & recovery of oil
- 2) Containment safeguards
- 3) Ensure no secondary releases
- 4) Product recovery from river
- 5) Ice-operations safety
- 6) Safe transfer of sodium chlorate

Faryan concluded his presentation with some metrics associated with the response as follows:

- 165,475 gallons of vegetable oil were recovered from tankers (not released)
- Approximately 800 gallons of vegetable oil was released to river
- 96,000 lbs of sodium chlorate was off-loaded from each of three cars
- Grain was also recovered using a vac truck

In terms of ongoing work, Holland reported that a 14 day monitoring period had been completed on March 16<sup>th</sup> and that no sign of oil was detected. He said additional in-water investigations will take place later this summer to look for any additional impacts beyond what was initially observed. Annette Trowbridge said USFWS was still in the process of reviewing reports from the incident and watching for possible additional impacts. Faryan said USEPA is interested in seeing any after-action reports emerging from the incident.

#### *Alma, Wisconsin Derailment*

Mary Stefanski next gave a case study presentation regarding the derailment at Alma, Wisconsin on November 7, 2015. She reported that 25 rail cars derailed along the rail line on the east side of the Mississippi River in the Upper Mississippi River National Wildlife and Fish Refuge, adding that the cause of the derailment is still unknown, with investigation currently ongoing. A total of nine cars derailed, which were carrying denatured ethanol (including 1-5% gasoline as a denaturant). Of these nine cars, five leaked and resulted in a loss of ethanol of up to 20,000 gallons. Stefanski explained that, out of the five leaking cars, only one had been fully breached, while the others suffered leaks from a variety of valves and manways. All of the cars involved were of the older, DOT-111 type.

Stefanski said it appears the large majority of the leaked product ended up in the ballast rather than in open water *per se*. She also noted that the local fire department issued a voluntary evacuation order on the morning of the derailment, but it was lifted by 1 p.m. that day.

Stefanski noted that, in general, notification regarding the incident was very prompt and the response in general proceeded quickly. She said Wisconsin DNR's River Team was able to deploy quickly and collect water quality samples from the potentially affected area before dark on the first day of the incident. One logistical issue in the response was that the process of offloading rail cars from the damaged train caused traffic problems on the nearby highway.

In terms of impacts from the spilled ethanol, Stefanski said there was no observable sheen and that no fish kill or dissolved oxygen drop was observed. She noted that the presence of ethanol in the ballast could be a potential long-term concern. Additionally, from the USFWS perspective, there were concerns regarding damage to the embankment and the potential for erosion and loss of sediment (as well as the presence of railroad ties and other debris). As a result, the rail contractors returned to remove ties and other debris, and to place a silt fence. This work was completed by November 25<sup>th</sup>.

Stefanski noted that due to this occurring in a shallow backwater, airboats had to be used extensively, with Wisconsin DNR, BNSF, and Pinnacle Engineering all working in collaboration. Additionally, the airboats had to approach the site from both sides as they could not pass under the trestle. Regarding incident command, Stefanski said it started as industry (BNSF) only initially, and that BNSF had begun to establish incident objectives and create an IAP before the regulatory agencies engaged. Then, on the second day, a unified command was formed, including USEPA, USFWS, Wisconsin DNR, and BNSF. Holland commented that industry's approach is to get the incident command and IAP up and running as soon as possible, even if regulatory agencies are not yet on site. Stokes added that there was not a smooth initial transfer of command from local fire to industry in this case. As such, command issues appear to be one area where continued work appears to be needed.

Kendzierski noted that there was some initial confusion about the product involved in the spill, and as such there was some uncertainty about the risk involved and the need to evacuate. He added, however, that once the response got up and running things functioned very well from his perspective.

Stefanski noted that there was strong interest from both the media and elected officials, saying that Senator Tammy Baldwin (WI) and FRA Administrator Sarah Feinberg both came out to the site. There had been another derailment in Wisconsin in the same time period, which had generally raised awareness among media and elected officials.

Holland said Pinnacle has continued to do monitoring of the area but has not subsequently detected any presence of ethanol. Brenda Kelly said Wisconsin DNR also plans to do spring invertebrate monitoring at site.

Dave Morrison said, based on experiences in previous incidents, there was concern that a fish kill could take place downstream of the spill location. However, cool water appeared to be helpful in mitigating potential for dissolved oxygen drop. Additionally, he added, there had been some concern about ice trapping of spilled product and resultant dissolved oxygen sags – but fortunately no fish kills were observed.

#### *St. Louis Area Flood, Hazmat and Debris Recovery*

Joe Davis gave a presentation summarizing flood response activities in the St. Louis area in late 2015 and 2016, emphasizing hazardous materials recovery operations. He described the heavy rainfall amounts, including over 9 inches of precipitation in St. Louis, which led to widespread flooding. Davis said USEPA mission, in coordination with other responding agencies, was also expanded to include debris removal. He explained that hazmat removal is typically a USEPA mission area under ESF 10, but that USACE requested assistance with debris removal (usually a Corps function under ESF 3) in this particular situation due to the large volume and diverse makeup of debris.

Davis said USEPA applied its mapping and technological approaches to aid the recovery effort, in particular utilizing phone and tablet-based software to locate and track collection sites. He showed a number of examples of how the application was employed for initial identification, routing crews to sites, and then “checking off” a location once the cleanup was completed. Davis explained that USEPA, Missouri DNR, USCG, and START contractor all collaborated in implementing debris collection. Davis noted that there was also a strong volunteer effort associated with the recovery, including from Americorps volunteers. Additionally, he noted that the St. Louis police assisted with air reconnaissance to identify orphan containers and other debris.

Davis said public messaging was also very important during the recovery effort in order to provide instructions in how individuals should make any debris on their property available for collection. Gann noted that this was critical as collection efforts typically do not extend onto private property, so it was important for individuals to get their debris to curb or other public property collection point.

Davis closed his presentation by summarizing both the personnel assigned to the cleanup as well as the materials recovered as follows:

- ESF 10 personnel:
  - 14 Federal On-Scene Coordinators
    - 31 Total USEPA personnel supported the operation
    - 1 USEPA Region 6 FOSC
  - 15 State On-Scene Coordinators
    - 17 Total Missouri DNR personnel supported the operation
  - 11 START contractors rotated through
  - 63 ERRS contractors at peak
- Over 22,000 cubic yards of residential flood debris
  - 8,913 cubic yards of debris/sandbags
  - 13,500 cubic yards of vegetative debris
- HHW / Orphan Containers
  - 317 fifty-five gallon drums
  - 20,852 assorted small containers
  - 179 propane tanks
  - 266 other compressed gas tanks
  - 1032 white goods (major appliances such as refrigerators and stoves)
  - 403 batteries
  - 117 small engines
  - 6,037 electronic items

### **NOAA Response Role and Capabilities Overview**

Adam Davis gave an overview of NOAA's roles and capacities in responding to spill incidents. He began by providing a history of the NOAA Emergency Response Division (ERD) and the role of the Scientific Support Coordinator (SSC). Davis described how NOAA staff expertise in oil spill response began to grow in the 1970s, with the M/V Argo Merchant oil spill in 1976 helping to crystalize the need for a focal point to coordinate scientific activity – which led to the definition of the role of the SSC. Meanwhile, NOAA's Spilled Oil Research (SOR) Team evolved into the Hazardous Materials Response Project (HAZMAT) and eventually became the NOAA ERD. He added that the Exxon Valdez oil spill in 1989 cemented the relationship between NOAA and USCG in working together on responses.

Davis noted that, since 1978, NOAA ERD has supported USCG and other agencies in response to over 3,000 incidents. He said in a typical year NOAA will respond to approximately 150 incidents in a variety of contexts. Davis then described the role NOAA played in a number of recent spill incidents, adding that ERD had been involved in support of 49 incidents so far in calendar year 2016.

Davis said 40 CFR 300.145, part of the National Contingency Plans, spells out the role of the SSC and allows an OSC to designate SSC as principal advisor for scientific issues, communication with science community, and coordination with scientific studies.

Davis explained that all of NOAA ERD's products and services in regard to oil spills are designed to answer the following questions regarding a release:

- What happened?
- Where could it go?
- What could it affect?
- What harm could it cause?
- What can be done to help?

He further explained that while the SSC is a single point of contact during an incident, a team of scientists at NOAA can aid and support the SSC as needed depending on the specifics of the situation.

Davis also described a typical timeline for the deployment of NOAA products and services during the course of a response. He noted models and tools often employed including: trajectory modeling, fate and weather products, chemical spill response products, chemical aquatic fate and effects (CAFE) database, environmental sensitivity index (ESI) maps, aerial observations, shoreline surveys, clean-up recommendations and oversight, and information management.

Apart from its direct role in incident response, Davis noted that NOAA-ERD also engages in:

- Working on contingency planning and preparedness for oil and hazardous substance spills (via area committees, regional response teams, and National Response Team).
- Conducting research and developing tools to support and improve spill preparedness and response.
- Providing training for responders and planners.
- Authoring fact sheets, manuals, and job aids.

Further, Davis indicated that NOAA ERD would certainly be willing to support and engage in training on the UMR.

### **Submerged Oil – Columbus, Kentucky Case Study and Response Considerations**

Adam Davis next presented a summary of the response to the barge collision and spill incident which took place on the Mississippi River near Columbus, Kentucky in September 2015. He explained that in this September 2, 2015 incident, a collision occurred between two barges on the Lower Mississippi River in the vicinity of mile marker 937, resulting in the complete breach of the #3 starboard cargo tank on the tank barge APEX 3508. As a result of the collision, approximately 120,588 gallons of clarified slurry oil was discharged into the Mississippi River.

Davis said an initial question driving the response was “where did the oil go?” as there was not much evidence of the spilled product on the river’s surface; with only a minor amount of floating oil observed on the surface, and no sheen observed during an overflight. Given the relatively dense nature of slurry oil, the expectation was that the majority of the product had gone to the river bottom and the challenge would be how to locate and remove the product. Davis commented that the American Petroleum Institute’s (API) *Sunken Oil Detection and Recovery Operational Guide* was in draft at the time of the incident and was a valuable resource during the response, particularly in its emphasis on standing up a sunken oil recovery team as soon as possible.

Davis explained that information regarding the spilled product was available via the safety data sheet (SDS), though it provided only a general description of product characteristics. As such, there was interest in the specifics of likely product behavior, which led responders to conduct jar tests to determine whether the product was likely to hold together or break apart under the conditions present. These tests indicated the product would likely hold together up to about 2-3 knots of current.

Davis next described the process used to locate the submerged oil. In order to locate/identify the sunken product, a vessel-submerged oil recovery system (V-SORS) was employed. This equipment includes a steel pipe with a chain tow bridle and chain lengths welded to the pipe for trailing behind with snare pom poms. The V-SORS is dragged behind a vessel keeping the V-SORS on the bottom in order pick up/detect sunken oil. The V-SORS provided a first cut, gross method of locating oil. Additionally, a diver survey was used to help confirm the location of the submerged product. Side-scan sonar was also employed in locating the sunken oil, which followed a recommendation made in the API operational

guide. Further, bathymetry was employed as it was expected that the oil would settle into deeper portions of the river bottom. Use of these multiple methods allowed responders to successfully characterize the location of the spilled product on the river bottom.

In addition to locating the spilled product, another key component of the response was identifying sensitive areas, Davis explained. This process included collaboration with USFWS, the Bureau of Indian Affairs (BIA), the state historic preservation officer (SHPO) and others. USFWS identified two Endangered Species Act (ESA) listed freshwater mussels at greatest potential risk within the action area. USFWS requested a species/habitat survey prior to commencement of recovery operations. The survey was completed on September 7, 2015 and indicated that the action area did not contain any suitable habitat for these mussels. Further, mussel observations were conducted during the recovery operations on behalf of USFWS and no mussels were observed during these operations. The BIA concluded there would be no impact to the trust resources within the action area. Also, since the action area was confined to on-water activities to remove sunken oil, the SHPO concluded that recovery actions were not likely to impact historic and archeological resources.

Davis said oil recovery was conducted using a device called an “environmental clamshell,” which allowed for targeted dredging and removal of the submerged product. GPS imaging was also employed to aid the crane operator in placing the clamshell bucket in predetermined grid locations. Advantages of this removal approach included minimizing disturbance of the river bottom, complete removal of product, minimizing the amount of water removed, and avoiding over-dredging. Davis said the environmental clamshell was also a safer approach than diver-directed removal. Each clamshell bucket extracted approximately 2.5 cubic yards of material, which equates to roughly 3.75 tons of oily sediment. The extracted material was loaded into a hopper barge, where excess water was decanted and run through sorbent material before being returned to the river. Davis explained that side-scanning sonar was then used to verify the removal of product from the river bottom.

Davis summarized both incident challenges and lessons learned as follows:

- Incident challenges
  - Recovery operations were at a location remote from the incident command post
  - Product was released in deep water and the channel’s center
  - Communications onsite were limited
  - Spill involved an atypical petroleum product
  - Specialized equipment was needed for product recovery
  - River traffic was impacted and had to be managed to allow for recovery
- Lessons learned
  - State and local asset awareness is important – knowing where and how to acquire assets
  - Robust environmental specialist and SSC support was critical
  - River conditions (current <2.5 mph, avg. depth 65 ft.) allowed for detection and recovery, greater depth or stronger flow may have precluded successful detection and recovery
  - Availability of commercial side scan and specialized recovery resources (environmental clamshell) was key – but these assets may not always be as readily available as they were in this case

Dorene Fier-Tucker asked how sediment was disposed. Davis replied that it was disposed in a landfill after undergoing paint filter testing. Livingston asked whether prop wash effects would have been a consideration if the spilled product had been resting at a shallower depth. Davis agreed that at depths 15 feet and shallower, prop wash could be an impact on spreading and/or burying spilled product. Faryan asked what endpoint goal was utilized in product removal. Davis replied that the endpoint goal was that less than 10% of the originally-spilled product resided in each of the site’s grid cells.



Joe Davis asked whether much re-suspension was observed when the product was removed in the clamshell bucket. Adam Davis replied that very little resuspension was observed, and that any lost material appeared to return very quickly to the river bottom, which might have contributed to some observed migration of the product on the river bed. Matt Stokes asked what the specific gravity of the product was estimated to be. Davis replied that the specific gravity was greater than one and that, in the cool river water, the product took on a peanut butter-like consistency.

## **PHMSA Update**

Mark Razny reported that the US DOT Pipeline and Hazardous Materials Administration (PHMSA) is finalizing an update to its Emergency Response Guidebook (ERG). Razny explained that the final version was not ready in time for this meeting but, once released, will be available on the PHMSA website (<http://www.phmsa.dot.gov/hazmat/outreach-training/erg>) and will also be available for mobile device and desktop downloads. He noted that sections which have been revised and expanded include those related to shipping documents, pipeline transportation, dangerous goods listing, adsorbed gases, wind speed estimation, and improvised explosive device (IED) safe distances. Separately, Razny also mentioned that proposed new rules from PHMSA regarding rail transportation and flammable materials are expected to be released this upcoming summer.

Razny next described upcoming transportation rail incidents preparedness and response (TRIPR) training sessions sponsored by PHMSA and other partners including USEPA and the rail industry. He said the first training of this type drew over 200 participants to a session in Toledo, Ohio. Razny said the next TRIPR training is upcoming on April 28 at Welch, Minnesota and that PHMSA is open to collaborating with the UMR Spills Group in regard to future TRIPR training sessions.

## **Agency and Partner Updates**

### *Minnesota*

Fier-Tucker said she is now the primary representative from the Minnesota Pollution Control Agency (MPCA) to the UMR Spills Group. She indicated that MPCA is facing some budget challenges as well as seeking to replace employees who have retired. Due in part to this reduced capacity, MPCA is increasingly collaborating with USEPA in order to move forward on removal actions. Fier-Tucker noted that Minnesota's legislature had in the last year created new requirements for railroads and that as a result the agency's interaction with rail companies has increased and currently MPCA is reviewing rail industry response plans.

### *Iowa*

Joe Sanfilippo said there have not been any recent spills affecting the UMR in Iowa. He commented that the recent winter response training had been very successful and it would be beneficial to expand this type of training to other locations in order to make it more accessible to a greater number of potential attendees.

### *Wisconsin*

Tom Kendzierski observed that the training and exercises held in La Crosse in 2014 had proven beneficial in subsequent incidents on the UMR. As such, he said there is substantial benefit in continuing these types of opportunities. In particular, he said it was key to integrate natural resource managers as had been done in both the training and exercises, as well as during recent events such as the Alma, Brownsville, and Balltown incidents. Kendzierski also mentioned that the next Region 5 Regional Response Team meeting will be held in Madison in May 2016.

Lisa Olson-McDonald said Wisconsin Emergency Management would soon be hiring a hazmat coordinator, and that this person may engage in meetings of the UMR Spills Group. She noted that one of the most important aspects of recent incidents was the key role of communication. Olson-McDonald also commented that personnel accountability (i.e., knowing where staff are working in an incident) has been a challenge during recent spill events. She also observed, regarding the Alma derailment, another challenge faced was the small size of the local fire department.

### *Illinois*

Roger Lauder said the number of incidents in which Illinois EPA staff have engaged is declining. However, he said it is not clear that this means that number of spills has decreased, but may also be the result of less reporting and/or fewer Illinois EPA staff available to respond to incidents. Lauder said state response has been challenging of late as Illinois does not have a current budget. He did note that common incidents statewide have been anhydrous ammonia leaks and damage to old pipelines when drain tile is being placed. Lauder said the flooding at the end of 2015 and beginning of 2016 in the St. Louis area, as described by Davis, also had impacts in Illinois even though there was not a federal declaration on the Illinois side of the river.

### *Missouri*

Rick Gann said the St. Louis area floods, as described in detail during Joe Davis' presentation, were the most significant recent event in Missouri. Also, in regard to the slurry oil spill incident described by Adam Davis, Gann noted that this occurred in a unique segment of the river where the State of Kentucky is on both banks. As such, Missouri was not as directly engaged as it would be in other river events. Statewide, Gann noted that Missouri DNR staff have been brought into meth lab cleanups, particularly in regard to materials disposal. He commented that the overall number of meth labs in the state appears to be declining, due perhaps in part to the tracking of Sudafed sales.

### *USEPA Region 7*

Joe Davis reported that, other than the flooding events as previously discussed, there have not been major spill incidents in Region 7 since the last meeting of the UMR Spills Group.

### *USEPA Region 5*

Steve Faryan said USEPA Region 5 is in the process of filling a few on scene coordinator (OSC) positions, and that USEPA staff is working to aid states when they are limited in staffing to respond to incidents. He said Region 5 also currently has a significant number of staff deployed to Flint, Michigan.

### *US Coast Guard*

Chad Lovato said the USCG Atlantic Strike Team (AST) is available to assist in training activities as desired by the UMR Spills Group. He distributed information regarding the AST and said he could be contacted with any followup questions. Ori Martinez of the Quad Cities Marine Safety Detachment (MSD) said there had not been any recent significant incidents in the Quad Cities area.

### *USFWS*

Annette Trowbridge said USFWS had been working on a risk tool in Region 3 that may be helpful in targeting future spill planning and exercises.

### *USACE*

Frank Catalano noted a recent incident at UMR Lock 27 on March 3, 2016, where an exiting tow stuck an upstream vertical gate, resulting in a release of 1,600 gallons of diesel fuel into the lock chamber. He said USCG and a response contractor were involved in cleanup operations which were completed the following day.

### *BNSF Rail*

Dillon Magers said BNSF's primary update will be reporting out on the development of geographic response plans (GRPs) along the river, which will be part of presentation the meeting's second day. He also noted the availability of the AskRail app (<http://www.askrail.us/>) and encouraged responders to become familiar with this tool.

### *CP Rail*

Chad Livingston noted that CP has been collaborating with BNSF on rail GRP development and is continuing to support the development of CAER groups along the UMR. Stokes said CP had recently participated in a discussion with USACE, Marquette Transportation, the American River Transportation Company (ARTCO), Upper River Services, USACE and USCG regarding the potential for incidents involving rail and barges. In particular, such incidents could occur when barges are pushed to the bank, particularly under high water conditions, and may obstruct rail lines. He said one of the primary outcomes of the discussion was the importance of communication between the rail and commercial navigation industries, and the importance of staff in both industries of understanding locational information used by each other (e.g., river miles and rail miles). Stokes said all parties involved committed to once-a-year discussions on the topic and he thanked both USACE and USCG for their engagement.

### *Alliant Energy*

Matt Cole said Alliant Energy is interested in participating in GRP development on the UMR and could potentially provide a staging location for response equipment.

*The meeting adjourned for the day at 5 p.m. and reconvened at 8:00 a.m. on April 7, 2016.*

## **UMR Spill Plan Update/MOA Signature Process**

Hokanson said the memorandum of agreement (MOA) governing the UMR Spill Response Plan and Resource Manual had been signed by seven of the nine member agencies of the Group, including all five states, USFWS and USACE. He said the MOA is currently awaiting signature at USCG District 8 and that he would keep the group updated as the signature process proceeds.

## **New UMR Tools**

### *NRC Spill Reports Map and Recent NRC Reports for the UMR*

Molly McDonald demonstrated the recently-developed web map displaying NRC reports on the UMR during the period of 2004 to 2015. She also distributed a list of NRC-reported spills during the period of September 2015 to March 2016 (i.e., from the last UMR Spills Group meeting to the present). Group members provided feedback that, on the report, they would like to see an indication of the spill source (e.g., vessel, pipeline, rail, etc.). McDonald said she could produce a more detailed version of the report including this information which could be distributed to the Group subsequent to the meeting.

### *UMR Spill Response Equipment Map*

Matt Jacobson demonstrated the UMR Spill Response Equipment map, which is a web-based map allowing users to identify equipment which is stored on the UMR river corridor. Jacobson explained that by using a general logon users can view information, but that he can also assign a specific logon to individuals who have ArcGIS licenses, which allows users to edit the map. He said individuals should contact him if they are interested in having editing rights. Livingston said the Dubuque and Quad Cities CAER organizations have equipment that could be listed in the viewer. Nic Winslow added that BNSF also is in the process of placing equipment that could be listed in the viewer.

### *SharePoint Site*

Hokanson said UMRBA has developed a SharePoint site to support its water quality work groups and is interested in determining whether this might also be of value for the UMR Spills Group. He said this site could be used to share working documents, restricted access documents, training calendars, and other items which would not necessarily be a good fit for the UMRBA public web site as currently configured. In response to a question from Hokanson, the majority of attendees indicated that they use SharePoint currently in their work duties. Hokanson said UMRBA staff would on development of a preliminary UMR Spills Group SharePoint site and make it available to Group members for testing.

### **Geographically-Specific Response Planning**

#### *Value of Response Plans/Use in Recent Incidents*

Fier-Tucker said Minnesota PCA is definitely looking at geographically-specific response plans as a resource in spill incidents. Jim Holland and Matt Stokes both commented that the UMR pool-specific plans, as well as Inland Sensitivity Atlas maps, had been valuable assets during recent incidents. Joe Davis said USEPA Region 7 has been working on approaches to best develop localized planning tools, including the use of cloud-based response planning tools. He emphasized the importance of moving toward common, interoperable platforms as the various spill response plans are developed. Livingston agreed that integration/interoperability is both important and challenging as plans are currently being developed by multiple entities. Stokes noted the value of the products is not just in the maps, but also in the associated initial incident action plans (IAPs).

Cole asked how, in regard to equipment use specifically, arrangements are made to facilitate the sharing of response equipment amongst various entities. Livingston replied that, at least in the case of CAER groups, the organization typically creates an agreement among its membership to facilitate equipment use. Fier-Tucker said some of these questions can also be addressed as part of the pre-planning process, to sort out where equipment resides and how it may be accessed during an incident. Razny observed that, as various planning tools are developed, it is important to be able to maintain and update them, so that they are robust resources, while also ensuring that proper security is provided in regard to sensitive information.

#### *UMR Pool Plans*

Mark Ellis demonstrated the recently-completed spill response planning tools for UMR Pools 5,5a, and 6, including maps, response strategies, and the initial IAP (as contained on a compact disc). He explained that a “roll out” meeting would be held soon in Winona, Minnesota to distribute these tools to local responders and provide training on the use of the tools. Ellis said the development of UMR pool plans will next move to Pools 11 and 12, as these had been the site of recent spill incidents. He also noted that it is likely that future pool plans will not be distributed via compact disc, but that these products are more likely to be shared via online mechanisms going forward. Ellis also said UMRBA would be looking to smooth out any differences among the format and presentation of the UMR pool plans. Since they were developed at different points in time as the planning process evolved, there currently are some minor variations in how each plan is presented.

Fier-Tucker requested that additional information be added to the pool plans to describe the area addressed by the plan, as these local details are helpful to responders who may be coming from other areas to the incident site. Faryan asked the Group whether the IAP templates included in the pool plans have been helpful. Holland said the IAP templates have been helpful and perhaps the plans could be enhanced by greater incorporation of knowledge regarding what techniques have actually been tried and proven successful on various areas of the river.

### *Rail-Developed Geographic Response Plans*

Nic Winslow provided an update on work by rail companies (BNSF and CP Rail) in developing geographic response plans (GRPs) along the UMR corridor from the Coon Rapids dam above the Twin Cities to Lock and Dam 17. Winslow noted that the rail companies have developed GRPs elsewhere nationwide and in this effort are definitely seeking to incorporate and build on existing planning materials for the UMR. Once they are completed, the rail companies intend to share the GRPs, as well as an accompanying equipment inventory, with responders on the UMR. He described the rail GRP development process as including the following steps:

- August 2015: GRP Kickoff Meeting with USEPA R5, R7, and UMRBA
- October 2015: Railroad GRP Presentation at UMR Spills Group
- December 2015: Stakeholder Coordination/ Meetings/Input
- January 2016: Field Work
- March 2015: Internal Draft GRP and Initial Response Manual Completed
- April-May 2016: Railroad Internal Review
- Summer 2016: Proposed GRP Meeting with USEPA R5, R7, and UMRBA

He noted that one of the primary goals of rail GRP development on the UMR is to fill in gaps where pool-specific response plans have not yet been developed. He also described objectives of rail GRP development as follows:

- Compliment to existing UMR response plans
- Compile existing Response Strategies from UMR Pool GRPs, and generate strategies for UMR Pools where none existing otherwise
- Compile and map location and inventory information for railroad emergency response assets
- Compile spill reporting and notification information
- Generate Pool-specific resource guides containing much of the above
- Provide an Initial Response Manual to guide railroads and coordinate with government and tribal agencies

Winslow explained that the particular focus of rail GRPs is on commodity releases from rail transportation, as opposed to releases from other sources (vessel, pipeline, etc.) which may be addressed in other plans. Further, he noted that rail plans are more focused on spill source control, whereas agency-developed plans may contain a greater emphasis on resource protection. Winslow then described the specific contents of the rail GRPs as including an initial response manual, GRP report, GRP master table, GRP overview figures, pool-specific figures, response strategies, habitat fact sheets, endangered species profiles, SCAT guidance manual, plume delineation tools, and inland response tactics manual.

Fier-Tucker asked how areas of focus for strategy development were selected in the GRP process. Winslow replied that the rail GRP focuses on the highest risk areas, where an incident is most likely to occur. Magers concurred, saying the GRPs consider threat and likelihood of an incident from the perspective of rail transport. Faryan asked how the information compiled might be shared with other railroad and industry groups. Winslow said the formation of CAER groups along the river is one important way that the rail industry is working with local and industry partners to help encourage response readiness. In addition, he added, the equipment being staged by the rail industry can be made available for use by others for emergency response. Stokes agreed, adding that the agreements created by CAER groups will typically address equipment usage, so in that case a separate agreement

addressing equipment is not needed. Also, he said, USCG has made its equipment available to others on the condition that it be cleaned and/or replaced as needed.

Joe Sanfilippo asked about the distinction between a CAER group and a spill cooperative. Winslow replied that a CAER group is typically limited to the sharing of equipment, rather than the sharing of personnel. Livingston added that if Group members are aware of facilities that would like to join one of the CAER groups along the river, that they are welcome to join and may contact one of the rail representatives for further information. Winslow observed that training, both in the CAER groups and in other settings, is another important way to build relationships which lead to more effective responses.

Garrett Ragland said a number of facilities in the Quad Cities are participating in a cooperative, and the Area Maritime Security Committee (AMSC) is providing a connection point for this work. Stokes commented that the existing Bettendorf spill cooperative was not interested in having rail as a partner and therefore the rail companies have needed to look in a different direction in the Quad Cities area. Fier-Tucker said the states can sometimes be in a position to help cooperatives and CAER groups with equipment acquisition.

Colin McWilliams noted that there is a considerable amount of data density along the UMR corridor and there may be value in creating a password-protected web viewer to aid in sharing this type of information. Annette Trowbridge said it will continue to be important to integrate the rail-developed GRPs with existing pool plans and other spill planning resources on the UMR. Trowbridge also asked about the pre-SCAT component that was previously discussed as being part of the rail GRP effort. McWilliams said this work is ongoing and incorporates aerial photography as well as land use/land cover data from the USACE Upper Mississippi River Restoration program.

### **Training and Exercises**

The Group discussed both recently completed training sessions and plans for upcoming training. Stokes said a number of events involving CAER groups are being considered for the summer and fall. Livingston added that this includes a planned event for June 22-23 in Winona and Winslow said August 8-9 is being targeted for an event in the Cassville or Prairie du Chien, Wisconsin area.

Gann observed that the Group may want to target training further downriver, as most of the recent training events have taken place in upper sections of the UMR. He offered St. Louis and/or Quincy, Illinois as potential target locations for training on the lower section of the UMR. Joe Davis said training in St. Louis would offer an opportunity to engage with OSCs, the sub-area committee, and fixed facilities in area. Mark Razny noted that PHMSA will be holding a hazmat training session with Missouri DNR on September 28-29. He added that PHMSA would like to target a training based in Iowa in the near future.

Barbi Lee said USEPA Region 5 is seeking to populate the training page on the RRT 5 website ([www.rrt5.org](http://www.rrt5.org)). She added that there seems to be some momentum in the Quad Cities area regarding training and exercises, with an AMSC exercise coming up soon.

Tom Kendzierski offered that Prairie du Chien may provide a good training location, in light of ongoing pool plan development and incidents in this area of the river. Stokes noted that inclusion of a wildlife component in training had been well received and therefore it may be beneficial to include this again in future training events. Brenda Kelly concurred, saying there is value in including such a wildlife component.

Winslow suggested that a shared UMR training calendar be established to aid in planning. Hokanson said UMRBA could pursue setting this up on the UMR Spills SharePoint site. He said that a conference call could also be held in advance of the next meeting to accelerate the process of training planning.

## **Mapping and Planning Updates**

Ellis said UMRBA has completed its work to update the Minnesota Inland Sensitivity Atlas and is now working on the Illinois statewide update. Joe Davis said updates have been completed to the Quad Cities Sub-area Plan, including an enhanced notification protocol. Lee said the Great Rivers Sub-area is planning to meet in September and is seeking to also integrate training components into its work. Ellis noted that the Minneapolis-St. Paul Sub-area has not met recently, but that the National Park Service is working on a response plan for the section of the river within the Mississippi National River and Recreation Area (MNRRA), which is in the Twin Cities metro area, and that response strategies identified in this process could be integrated into the Minneapolis-St. Paul Sub-area Plan.

## **Next Meeting**

Hokanson said he would be in contact with the Group regarding the scheduling of a next meeting, which most likely will occur in October 2016.

*With no further business, the meeting adjourned at noon on April 7, 2016.*