

**Upper Mississippi River
Hazardous Spills Coordination Group**

**October 16-17, 2018
Dubuque, Iowa**

Meeting Summary

Participants

Joe Sanfilippo	Iowa Dept. of Natural Resources
Tom McCarthy	Iowa Dept. of Natural Resources
Mike Rose*	Minnesota Pollution Control Agency
Lisa McMahan*	Minnesota Pollution Control Agency
Jim Stockinger*	Minnesota Pollution Control Agency
Ryan Stafne*	Minnesota Pollution Control Agency
Jeff McCrery*	USACE, Rock Island District
Leo Keller*	USACE, Rock Island District
Darryl Aldrich	USCG MSD Quad Cities
Valincia Darby*	US Dept. of the Interior
Steve Faryan	USEPA, Region 5
Andy Maguire	USEPA, Region 5
Joe Davis*	USEPA, Region 7
Heath Smith*	USEPA, Region 7
Jessica Evans*	USEPA, Region 7
Dean Beneke	Alliant Energy
Cory Carter	Alliant Energy
Tony Houdyshell	CP Rail
Chris Biellier*	Seneca Co.
Jordan Soderman*	STARS
Mark Ellis	UMRBA

**participated by phone*

Call to Order and Introductions

The meeting was called to order at 1:05 p.m. by Chair Joe Sanfilippo. Introductions of all participants followed. Mark Ellis opened the meeting by presenting a Certificate of Appreciation to Steve Faryan, thanking him for his years of service and support of the UMR Spills Group.

Approval of Previous Meeting Summary

The summary of the April 24-25, 2018 UMR Spills Group meeting was approved without modification.

Agency and Partner Updates

Iowa

Joe Sanfilippo reported that there had been a major spill at the BP Dubuque facility. Tom McCarthy was involved in the response and would provide more details in a presentation later in the meeting.

Iowa has experienced extensive flooding in the past month, including the Turkey, Wapsipinicon, Cedar, Iowa, and Maquoketa Rivers. The flooding caused many road closures, wastewater treatment bypasses, and harvest delays throughout the area. In response to a question about response demands, Sanfilippo explained that due to many floods since 2008, there has not been much debris to deal with. However, permanent flood control is still needed to address the long-term problem.

IA DNR upper management may change with the upcoming Governor's election. The DNR Director and a Division Administrator retired and will be replaced after the election. An Acting Director is currently in place, but many decisions are being delayed until the new Governor is chosen.

Minnesota

Lisa McMahon reported on the August 8, 2018 derailment of a UP train on a bridge in St. Paul that leaked fuel into the Mississippi River. An estimated 3,500 gallons of diesel were lost and only a small percentage was recovered. Andy Maguire of USEPA provided more details in a presentation about the spill and response on day two of this meeting.

Similar to Iowa, flooding has caused problems, including wastewater treatment bypasses and animal feedlot overtopping incidents.

The USCG MSD St. Paul led a 115e-compliant full-scale exercise in St. Paul, MN on September 12, 2018 that was a collaboration between participating agencies and railroads. The exercise included port security, spill response drills, and preparatory requirements for the railroads.

MPCA is currently reorganizing; the Commissioner has approved moving responders under one group to be more effective in planning and preparatory activities. Responders were previously assigned under different agency groups despite having similar responsibilities.

Illinois, Missouri, Wisconsin

No representatives from Illinois, Missouri, or Wisconsin were present to provide updates.

USACE, Rock Island District

Jeff McCrery provided a brief presentation about a small release from the USACE Survey Vessel Clark on October 8, 2018. The vessel was tied to a mooring cell; floodwaters wedged it into place, preventing it from rising with the water level. It was then inundated and sank on site. A fuel sheen was visible, so sorbent boom socks were set around the vessel to prevent spread. The Corps responded with a dive team to set air bags in place to raise the vessel and pump out water. It was then moved to a repair facility for assessment. Estimated damages are approximately \$500,000.

McCrery made the initial notifications around 10:00 a.m. on October 8 to the Illinois Duty Officer and National Response Center. Crews responded quickly and had contained fuel and raised the vessel that same afternoon. It is suspected that the vessel had been tied off improperly, which kept it from rising as water levels rose.

Lessons learned from the incident were to check forecasts more frequently and not to leave a vessel in the river over a weekend. New procedures are being adopted to pull vessels from the river in such cases.

USCG

No representatives of the USCG were present during the roundtable to provide updates.

USEPA, Region 5

Steve Faryan reported that the agency has also been busy responding to floods. Staff are on standby to support hurricane response, but have not been called yet. USEPA Region 5 is holding a joint Regional Response Team (RRT) meeting with Region 4 in Cincinnati, Ohio.

The agency responded to a tire fire in Chicago, Illinois. The fire was put out by the Chicago Fire Department, USEPA helped with water management and treatment of foam and water on the Calumet River. Contaminated water was contained on site with frac tanks stored on a barge. The agency also responded to a fire at a chemical warehouse in Dixon, Illinois.

Andy Maguire added that USEPA Region 5 has hired new On-scene Coordinators (OSC) for southern Illinois and the Green Bay areas. The response budget is adequate under the continuing resolution, which is set until December.

USEPA, Region 7

Heath Smith reported that two new OSCs have been hired to support the Greater St. Louis Sub-area. Jessica Evans, formerly of USCG, introduced herself to the group.

Joe Davis reported that the agency responded to a cleanup in Hurley, Missouri at a facility on the floodplain and next to a creek along the Missouri River. An individual had sold blasting sand and equipment but had not dealt with waste products. Approximately 13 million pounds of sand contaminated with cadmium and chromium were stored in a warehouse. To treat the sand, the heavy metals must be made immobile to set on site or ship as hazardous material for land disposal. Answering a question about how this is done, Davis said that compounds are used to bind the metals and put them in a stable valence state, then water is used to leach out the stable material. USEPA Region 7 is still figuring out how to ship the material to a site in either Chicago or Oklahoma for disposal. Davis provided photos of the warehouse stockpile to the group.

Dept. of the Interior

Valincia Darby reported that the agency is currently reorganizing. No significant changes are in place now, but she will inform the group if any are made.

Seneca Company

Chris Biellier reported that Seneca has had no incidents to report, but staff did support the response to the BP Dubuque facility release on August 6, 2018.

STARS

Jordan Soderman reported that STARS took part in the UMR Pool 2 full-scale exercise on September 12, 2018. He took part on a safety boat, which helped test communications on the water during the event.

STARS will be supporting the Dubuque CAER response training taking place on October 18, 2018.

BP Dubuque Spill

Tom McCarthy of Iowa DNR shared a presentation with the group about the August 6, 2018 release of diesel from an aboveground storage tank.

On August 6, 2018, Kirsten Hancock of BP Dubuque called to report a leak from a 2,500,000-gallon aboveground storage tank during a heavy rain event. The tank had been improved and recently inspected. Diesel was draining out of the secondary containment berm toward the south fork of Catfish Creek.

Dubuque Fire Department were the initial responders and were soon joined by Seneca Company. USEPA Region 7 and USDOT were mobilized quickly to the facility.

Tank 12 leaked into its containment berm and then south and east toward the creek. An estimated 60,900 gallons of #2 ultra-low sulfur diesel was released into the containment basin. Upon arrival on scene, McCarthy saw the basin was filling up, noted a strong odor and could see fuel spraying out the base of the tank. Fuel was also leaking into the adjacent secondary containment basin for Tank 4.

Inspection showed that the Tank 12 containment berm had leaked along a seam on the east side. Responders from BP and Seneca built earthen berms along the drainage path to slow the spread of fuel toward the creek. Dewatering tubes were raised to prevent contamination, but one was used to direct overflow to an oil/water separator.

The first boom site set up was downstream at the Mines of Spain State Recreation Area near the confluence with the Mississippi River, as Catfish Creek was flash flooding due to the rainfall. The next boom sets were placed upstream closer to the facility. The first bridge had a good sorbent boom deployment that was manned around the clock for the first few days. Responders set a deflection boom at the North Cascade Bridge, but no diesel was found along that stretch of the creek.

To remove the remaining fuel from Tank 12, BP opened pipelines to pump out diesel in the lines to Minneapolis and Kansas City. Valves on site were opened manually. Earthen berms were placed in many locations along the drainage path; all collected diesel to some degree. A pad was built on which frac tanks were set to stage removed dirt and oily water. Contaminated soil was excavated and sent to a landfill for disposal.

Incident Command was concerned about diesel getting into the area's karst topography. A geologist identified wells in the area that would potentially be contaminated by any fuel infiltrating the groundwater. BP and its contractors sampled household wells and no positive hits were recorded. BP also probed 31 locations within the facility. Positive hits were recorded for 12 probe sites. McCarthy noted that there were few calls to report the strong odor, despite it reaching nearby residential areas.

BP completed 20 well samples, 31 soil probes, and groundwater sampling during the response. BP and its contractors dug a 12-foot recovery trench and removed 2051 tons of contaminated soil, from which 6,600 gallons of diesel was recovered. Another 47,334 gallons of liquid diesel were recovered from the facility containment basins. In total, responders recovered approximately 54,000 of the nearly 61,000 gallons released. The facility had held a worst-case discharge exercise in June of 2018, so the facility plan and staff were prepared. BP, the Fire Department, and contractors all followed the plan, which resulted in a very effective response.

McCarthy noted it was his first time working with the Pipeline and Hazardous Material Safety Administration (PHMSA) Accident Investigation Team, and believes they did a good job in this response. BP and the Iowa DNR also responded well. IA DNR issued a Notice of Violation for Prohibited Discharge and state water quality violations in South Fork Catfish Creek. BP must submit a long-term remediation plan for the contaminated area by January 1, 2019. Secondary containment at the facility must also be improved.

In response to a question about the cause of the tank breach, Heath Smith, USEPA Region 7 OSC, said it appeared that the heavy rains may have contributed to the release. A leak in the tank floor allowed fuel to be pushed downward while a high-water table created a gap between tank and pad. However, a PHMSA investigation is still underway to make a final determination. An SPCC inspection is being routed to the agency now, so consequences for BP are unknown at this time.

Approximately 6,600 gallons of diesel were extracted from soil, but those present were unsure how this was done. The contaminated soil was sent to a landfill in Rock Island, Illinois for disposal. Responding to a question about the process, Joe Sanfilippo said that there is a method for filtering the contaminated soil; however, the nearby facility that used to do this no longer does so, nor was there room at the BP facility to process on site.

Responding to a question about other approaches that could have been used, McCarthy said there was no discussion about breaking the berms between secondary containment basins. The fuel was pooled only six inches deep when response began. The berms are designed to overflow, so it was thought that this would happen if the leak increased in volume. Discovery of the fissure in the berm rendered such actions moot, as the fuel had found a way out of the basin.

Chris Biellier of Seneca agreed that the ability to respond quickly was key in this event. BP had contacted many partners immediately who arrived on site within two hours. With the wet conditions and large release, BP played it safe by mobilizing as many assets as possible. He noted that five weeks of continuous action was needed to recover the spilled fuel.

Alliant Energy Response Equipment

Cory Carter of Alliant Energy Lansing Generating Station presented its new spill response equipment cache to the group. Alliant is willing to share the equipment with responders in the area. For background, Carter said that the Fox Lake Generating Station needed response equipment during the decommissioning of the plant. Once that process was completed, Alliant moved the equipment to the Lansing Generating Station, which lies along the main channel of the Mississippi River just below Lansing, Iowa.

There is a deck boat at the facility, but it does not have a trailer. Responders could pick up the equipment or load it onto boats at the facility dock using the skid loader on site. The cache is stored in a Conex box on the north side of the tractor shed. It contains 500 feet of skirt boom, around 100 sorbent booms for river use, and two portable power units.

The facility has a guard at the gate from 7:00 a.m. to 3:30 p.m., and a phone number to contact the control room at other times. The control room is manned at all times. Carter provided contacts for the group to use if they need to request use of the equipment:

Dean Beneke	(563) 538-3116
Tom Benner, Sr. Mgr.	(563) 538-3167
Control Room	(563) 538-3151

Mapping and Planning Updates

USEPA Region 7

Joe Davis shared details about the full-scale exercise held jointly by USEPA Regions 6 and 7 on September 24-28, 2018. The two Regions support each other in larger responses and this exercise helped reinforce this collaboration. The exercise scenario was a major flood that dislodged aboveground storage tanks and scoured a pipeline, leading to a release of 70,000 gallons of tar sands. Goals were to enhance readiness, use mobile data collection tools, improve familiarity with response processes, GIS data gathering, and incorporating SCAT training into Operations on a large spill.

The event had around 100 participants plus controllers and support staff. Nearly 70 were stationed in the field, the rest were at the command post. Field crews were in Shawnee Mission County Park, the command post was at the USEPA regional office. Federal agencies represented included USEPA,

FEMA, and USDA APHIS Wildlife Services. State response partners from Iowa, Kansas, Missouri, and Oklahoma also took part. Local counties, OSROs, and industry were also present.

The week-long event incorporated agency report-outs and experimental use of tech badges to register and track staff. On day two, participants received “Just-in-time” training, were shown how to use mobile app tools, trained in SCAT basics, and received demonstrations in wildlife hazing, response equipment use, and health and safety.

The exercise scenario was executed over two days. ICS was tested in the command center; field crews were put into functional groups at the park to collect data, set boom, and other activities. A mobile lab was set up to test field samples and send data to command. A USGS autonomous submarine was set into the lake to collect information. Data sharing supported the testing of using field data to develop ICS forms that could be sent back to the field through Operations. The data management component of the exercise worked well.

Responding to a question, Davis was unsure the submarine could be deployed in the Mississippi River. It finds its own path, but might have difficulty in strong currents. USGS also provided a service boat that could collect detailed bathymetry, which could be useful for finding sunken oil in the river.

USEPA Region 7 aims to hold backup training yearly, but recent hurricanes have sidetracked this work. Davis said they realistically aim to carry out the training every other year. The County Park was very accommodating to allow all the equipment needed for the exercise, including allowing power boats in what is normally managed as a no-wake lake.

USEPA Region 5

Mark Ellis reported that UMRBA and the Great Lakes Commission completed their previous contracts with USEPA Region 5 and were awarded new 5-year contracts to continue the mapping and planning work associated with the Inland Sensitivity Atlas. UMRBA completed the Wisconsin statewide update at the end of September. USEPA Region 5 suggested a new process for submitting updated data. This process will be defined soon and the new Wisconsin data will be submitted with the new process. Ellis noted that the traditional atlas maps are no longer being produced. Users of the atlas now request access to the ISA viewer on www.rtt5.org and use the mapping widget to create their own maps. UMRBA has begun collecting data for the next Minnesota update, which is scheduled to be completed by September 30, 2019.

Great Rivers Sub-area

Heath Smith reported that the Great Rivers Sub-area planning process was divided into three sections to develop small tactical plans. Several counties comprise each section. The Paducah/Metropolis plan is in process and is nearly ready. The Sub-area lies within USEPA Regions 4, 5, and 7. Participants reached a consensus to develop the smaller tactical plans under the Sub-area umbrella.

Greater St. Louis Sub-area

Heath Smith and Jessica Evans reported that the Sub-area will meet on October 25, 2018 to revive the group. They will make an effort to get broader involvement in the planning process. The plan was last updated around one and a half years ago.

Minneapolis/St. Paul Sub-area

Mark Ellis reported that the Minneapolis-St. Paul plan has not been updated since 2014. The planning committee met twice in 2017 to establish a mission statement and set general goals. USEPA OSC David Morrison would like to make the next update an IAP-style plan instead of the full text version that

currently exists. He would like to boost industry and local involvement in the planning process. The next meeting is set for December 11, 2018.

Quad Cities Sub-area

Joe Davis noted that OSC Ramon Mendoza has been attending the Quad Cities Sub-area planning meetings. Contacts in the plan were updated in July 2018. A local Community Awareness and Emergency Response (CAER) group has been started, including LEPCs, railroads, and industry. The next meeting is scheduled for October 26, 2018.

[The meeting adjourned for the day at 4:30 p.m. and reconvened at 8:30 a.m. on October 17, 2018]

Following introductions, Darryl Aldrich of USCG presented UMRBA with a Certificate of Merit and command challenge coin to show its appreciation for the association's work in support of planning, response, and information sharing on the Mississippi River.

Geographic Response Plans

UMR Pool 2

Mark Ellis shared that because the response strategies developed for Pool 2 are outdated, the Minneapolis-St. Paul Sub-area planning work will include updating or replacing the strategies. Some of the strategies were tested during the recent full-scale exercise and shown to be inadequate, necessitating an update.

Great River National Wildlife Refuge

Mark Ellis said that UMRBA held meetings over the summer with local participants to develop draft response strategies for Pools 20 and 21, which include the Fox Island and Long Island units of the Great River NWR. Field visits to verify the sites were postponed due to flooding following heavy rains across Iowa. USFWS is interested in developing spill response plans for the Delair and Clarence Cannon units of the refuge, covered by Pools 24 and 25. UMRBA aims to complete both plans in 2019.

CP Rail

Tony Houdyshell updated the group about the CP mobile app being developed to assist response along the rail system. Because of internal delays, the app has not been released into full use yet. CP Rail is completing its Wisconsin GRP. This GRP and the joint CP-BNSF plan for the UMR corridor were exercised at the full-scale exercise in Pool 2 and at the Guttenberg training held in June, 2018.

Mark Ellis said that contractor Colin McWilliams of Polaris Applied Science requested access to BNSF data and to share it with UMRBA. Once the two sets of response strategies are brought together, some work will be needed to review the data for consistency and to resolve any contradictory instructions. Houdyshell noted that there may be apprehension from railroad leadership to publish the response plans before the upcoming PHMSA rule changes are implemented. Because there is uncertainty how new regulations will affect requirements, there is concern that plans may need to be reworked once the rules are finalized. Andy Maguire said that although the business stance of not investing in work that will be unfit makes sense, the response strategies and data should be shared for functional response reasons anyway. Houdyshell said he would take that message to CP leadership.

UMR Equipment Viewer

Mark Ellis gave a brief demonstration of the UMR Equipment Viewer, a web map that users can access to locate response equipment caches along the Mississippi River corridor. Data is maintained by users, so UMRBA cannot guarantee the validity of what is displayed. Contact information is provided, so those who would borrow equipment can contact its owner to determine its availability and requirements to borrow it. The group suggested two changes to enhance the information: first, adding a data field to record the number of facility staff who are trained or qualified to deploy the equipment at a site; second, contact all equipment owners yearly to have them validate the information in the map.

In response to questions about accessibility, Ellis clarified that those who post their equipment do so because it is available. Joe Davis said that a concern held by industry is about how to dispose of, clean, or replace equipment that is used by other entities. He suggests broadening the group of users to include more facilities.

Case Study: UP Derailment, St. Paul

Andy Maguire shared a presentation about the August 8, 2018 derailment of a UP train on the Hoffman Bridge across the Mississippi River. The train derailed around 2:00 a.m. Two locomotives and an empty tanker car derailed, ripping a hole in the bottom of one fuel tank and causing a drip from the second locomotive's fuel tank. Within a half hour, the Minnesota Duty Officer and the NRC had been notified. Three Oil Spill Response Organizations (OSRO) were mobilized within the first hour. The initial incident briefing was distributed by UP Railroad by 7:00 a.m. Unified command was established by noon and included UP Railroad, USEPA, and MPCA.

The presence of a traveling oil film and bank-to-bank sheen presented a significant threat to waterfowl and sensitive aquatic plants and animals downstream.

As day broke, a bank to bank sheen was visible on the river. Ryan Stafne, State OSC, was on site for the response. He reported that there were no issues with setting boom. The USCG shut the river down so response could proceed. Responders set cascade boom to collect spilled fuel at Aggregate Industries on Grey Cloud Island, around five miles downstream of the bridge. Stafne said that although the boom sets were effective, weather was not. Southwest winds pushed the sheen back toward the east shore, making collection difficult. Booming operations continued until 4:00 p.m. on August 9. Two hours later, the derailment was cleared and the swing bridge repaired, inspected, and operable. The river was then opened to commercial traffic, though a no-wake zone was established so that booming operations could continue along shore.

Recovery operations continued until August 13. MPCA made a monitoring plan with USEPA and UP Railroad to track water quality in Pool 2. Samples showed normal levels except for the farthest downstream sample site, which showed traces of diesel. The fuel appeared to have moved downstream faster than expected. The initial report stated a 2,500-gallon tank had been ruptured. Later updates increased the released volume to 3,500 gallons, with 150 gallons recovered. Water and oil collected during operations were sent to Zahl Petroleum for disposal.

Responders from the nearby Andeavor Refinery in South Saint Paul set the initial boom quickly. Multiple OSROs took part, including Wenck, Bay West, West Central Environmental, and GHD for water quality and air monitoring. Ryan Stafne said that the Wakota CAER booms used for the response were cleaned, dried, and returned to their caches by West Central Environmental. Wakota CAER members pay dues that cover the costs of using each other's equipment through mutual aid agreements. Andy Maguire noted that if equipment was left for its owner to clean or replace, they could go to the Oil Spill Liability Trust Fund to get reimbursed for the expense.

Training and Exercises

Dubuque CAER

Tony Houdyshell shared that CP Rail, BNSF, and Dubuque CAER held a two-day training in Guttenberg, Iowa on June 15-16, 2018. Around 85 participants gathered at the Turkey River confluence with the Mississippi River to train new and inexperienced County and Fire Department staff in a safe environment. Participants learned not only about equipment and booming techniques, but also safety processes and skills. The training led teams through stations to learn different techniques and was deemed a successful event.

Houdyshell said that CP Rail and Dubuque CAER will meet on October 18, 2018 to train for response using the CP911 training car at the Dubuque railyard. Participants will simulate a vegetable oil leak to Bee Branch Creek and retention pond. The Dubuque Fire Department will practice containment, tank cars, and booming techniques. Around 30 participants are expected to attend.

UMR Notifications

Mark Ellis shared a summary for the group of responses to two notification drills held since the last meeting. Thirty-six of more than 100 listserv participants confirmed receipt of the NRC report for the June 27 drill. Thirty confirmed receipt of the NRC report for the August 9 drill. The group agreed that the listserv serves its purpose, and there is no need to provide additional follow-up contacts to cover for any bounce-back emails. Agencies must account for their own participation or alternative contacts.

Ellis shared the UMR Spill Response Plan and Resource Manual notification list for the group to update. The list was last updated in 2014 and must be updated to ensure contacts are valid. Joe Sanfilippo noted that Iowa gets daily reports from USEPA Region 7, but not from USEPA Region 5. Steve Faryan replied that he will see if he can add Iowa to Region 5's report list.

Ice Response Training

CP Rail and USCG will be holding an ice response training event in Milwaukee, Wisconsin on February 12-14, 2019. The three days will be a repeating one-day event to handle a large group of participants. USCG MSD Milwaukee will host the training in its facility and on the ice just outside the facility. Invitations will be sent soon.

MPCA

Mike Rose said that Lisa McMahon and Jim Stockinger of MPCA are creating field guides to share and train agency staff in emergency operations. The topics of response will be not only hazardous materials, but also feedlots, wastewater, and more. MPCA will carry the trainings beyond the agency to other stakeholders.

USEPA Region 7

Joe Davis said that USEPA Region 7 is developing an internal training schedule for response, Incident Command System, and more. This will be taken to Sub-areas later, but is not yet planned. USEPA Region 7 has held fast water response training with a wildlife component in Kansas and Nebraska in recent years, and may hold its next such training on the UMR.

Other Business

Mark Ellis opened a discussion of how the group can revitalize its membership. Natural disaster response deployments and competing meetings have pulled a number of participants away, and retirements or other staff turnover have left some gaps. The group agreed that in-person meetings are still far preferable to holding conference calls. Although the group is officially led by the States, there was also agreement that boosting industry participation would be very beneficial.

Several suggestions were made that could connect the UMR Spills Group to other potential members:

- Team up with another event, such as a CAER group meeting or training event. Both groups would have an opportunity to learn about each other and build connections.
- Develop an informational flyer or handout that could be shared with facility operators by state inspectors. This could help bridge any gaps in awareness or trust between facilities and an outside group.
- Tie into a facility for a site tour or exercise, which could provide a theme for the meeting.

Cory Carter said that Alliant Energy would possibly be interested in hosting an exercise and having others observe and react. The input from experienced neutral observers could benefit the facility greatly.

Darryl Aldrich said the USCG could connect the group to facilities, but a Government Initiated Unannounced Exercise would not be the right format because the facility should not be expecting the exercise. However, worst-case exercises with planned boom deployments and mobilization would be a better opportunity. Andy Maguire and Joe Davis concurred and suggested they and USCG identify facilities along the Mississippi River that might be candidates for such an event.

Future Meeting Schedule

Following the previous discussion, the group decided to leave the date for the next UMR Spills Group meeting open until potential facility or CAER group hosts could be identified.

[With no further business, the meeting adjourned at noon on October 17, 2018]