Preface:
What follows is a narrative summarizing the tiger incident that occurred at the Topeka Zoo and Conservation Center on April 20, 2019 in which a zoo keeper was injured. This narrative will serve as the official report to the greater Topeka community, the media and several related agencies and organizations. In some areas of the report, extra explanation is added with the intent of making it understandable by all that read it. Further questions about the content of this narrative can be directed to the following individuals:

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Incident Summary:
On April 20, 2019 at approximately 9:30 AM, a zoo keeper at the Topeka Zoo and Conservation Center entered an outdoor Sumatran tiger habitat. Seconds later, a male Sumatran tiger left an adjoining indoor holding space and entered the outdoor habitat the keeper was in. Seeing the tiger, the keeper retreated towards the exit of the habitat. The tiger grabbed the keeper from behind and pulled her back into the habitat and subsequently inflicted injuries. Within three minutes and forty-five seconds after the tiger grabbed the keeper, the tiger was secured in an inside holding space and first responders were administering first aid to the injured keeper.

Internal Investigation/Review of Incident:
The purpose of the internal investigation or review is to provide a holistic summary of what went wrong, why it went wrong and what action steps will be taken to prevent a similar incident from occurring at the Topeka Zoo. Management of the Zoo has elected to expand the findings of this review to all similar situations at the Zoo. If through this review an area of improvement is identified to improve tiger management, where it makes sense that same improvement will be made throughout the Zoo’s other carnivore programs. It is not the purpose of this review to describe potential disciplinary actions surrounding this incident. Personnel matters relating to this incident will be managed in accordance with City of Topeka Personnel Code, City and Zoo policies along with union bargaining agreement guidelines. As such, those outcomes will remain confidential.

Witness Account:
On the morning of April 20, 2019, a Topeka Zoo Docent (trained volunteer) was stationed at the zoo’s Sumatran tiger habitat as part of the zoo’s plan to celebrate Earth Day. Shortly after, the Docent was joined by two zoo guests, a wife (Guest 1) and husband (Guest 2). The Docent and the two guests watched a Zoo Keeper (Tiger Keeper) complete the morning cleaning routine in the South side of the Sumatran tiger habitat. During this time, the zoo’s male Sumatran tiger housed on the North half of the habitat had access to both the indoor and outdoor areas of the habitat through Tiger Outside Shift Door
D. The Docent and the two Guests watched the male tiger in the North enclosure go inside and back out several times during their stay in front of the tiger habitat. During this time, Tiger Outside Shift Door D was locked in the open position giving the male tiger free access to choose whether he wanted to be inside or outside.

At approximately 9:25 AM, the Tiger Keeper was observed coming around the North side of the tiger habitat where she proceeded to open a drain valve to drain the pool in the male tiger’s outdoor habitat. The Tiger Keeper then proceeded into the keeper area of the tiger holding building. The male tiger went into his portion of the tiger building through Tiger Outside Shift Door D.

At approximately 9:30, the Docent and two guests observed the Tiger Keeper again proceeding around the North side of the exhibit. The Tiger Keeper proceeded to the North Habitat Access Gate and entered the outdoor tiger habitat. Seconds later, the male tiger went through Tiger Outside Shift Door D thereby entering the same outdoor space that the Tiger Keeper was in. Seeing the tiger, the Tiger Keeper turned and proceeded back towards the access gate. The tiger caught the Tiger Keeper from behind and pulled her to the ground. The tiger proceeded to bite and claw at the Tiger Keeper several times inflicting wounds to the head, neck, back and one or both arms.

A statement by the observing Docent, recounts that as the Tiger Keeper entered the outdoor habitat the situation appeared wrong as the Docent thought the tiger had access to the outdoor habitat as the Docent had recently observed the tiger going in and out. Because the tiger was not outside, the Docent assumed the tiger was secure in a separate indoor area.

**Emergency Response:**
The incident was witnessed by the Docent and Guests 1 and 2 through a glass viewing window into the outdoor habitat. Both the Docent and Guest 1 took immediate actions which triggered the Zoo’s emergency response.

Realizing what time of day it was, the Docent knew there would be numerous keepers around nearby animal exhibits. Across from the Zoo’s outdoor tiger habitat is an outdoor hippo pool. She saw a staff person cleaning the hippo’s outdoor pool. In an effort to convey the emergency of the situation, she shouted, “There is a tiger out! There is a tiger out!”

At the same time as the Docent turned to seek a staff person to initiate the zoo’s emergency response, Guest 1 placed a call to 911. We estimate that the 911 call was placed between 7 and 15 seconds after the tiger grabbed and pulled the Tiger Keeper to the ground. Because the 911 operator kept Guest 1 on the call until after first responders began administering first aid to the Tiger Keeper, we are confident in stating that the entire incident occurred between three minutes forty-four seconds and four minutes two seconds.

Based on the 911 call placed by Guest 1 at 9:29 AM on April 20, 2019, we can establish time markers within the emergency. To understand the 911 call, it is important to note two things. First, during the
911 call Guest 1 walked away from the tiger habitat. Guest 1’s husband (Guest 2) stayed at the tiger habitat and watched the incident progress and relayed information to Guest 1 to convey to the 911 operator. Second, Guest 1 stated in an interview that she placed the 911 call immediately after the tiger grabbed the Tiger Keeper. Yet during the call, she stated this but also stated that the incident happened about five minutes ago. Her guess at the time frame was more than twice the actual time. It is interesting to note that all but one witness accounts more than doubled the estimate at how long things took. This is the human reaction that, “it felt like an eternity.” The one staff person that had an almost accurate sense of the time duration has a military background and served in active duty. The time markers of the 911 call are as follows:

0:01 911 operator answers call  
0:37 Keeper 1 arrives at tiger habitat  
1:00 Outdoor tiger habitat secured  
2:33 Keeper 1 and Keeper 2 calling tiger into indoor area  
3:09 Sirens from first responders approaching zoo can be heard  
3:47 Tiger is secured inside building and first responders are already treating Tiger Keeper

Staff Response:
At hearing the Docent’s shout, an Animal Care Assistant cleaning the hippo pool immediately proceeded inside the Animals and Man building and notified a Zoo Keeper (Zoo Keeper 1). While the description of the emergency from the Docent was a little unclear, it gave enough information that something serious was going on near the tiger habitat. Keeper 1 immediately raced to the tiger habitat going through an unoccupied elephant habitat to get there. A few seconds later, another keeper (Keeper 2) arrived at the location of Keeper 1 via golf cart. Keeper 1 pointed to where the tiger had the Tiger Keeper in the tiger habitat. Keeper 2 assessed the situation then raced around the North side of the habitat and secured the access gate into the outdoor tiger habitat. At the same time, Keeper 2 declared over the zoo’s radio system a “Keeper Down” emergency at the tiger habitat.

Keeper 2 went into the back area of the tiger building. Keeper 2 unlocked Tiger Outside Shift Door D that was in the open position and grabbed the tiger’s meat and began calling the tiger inside.

A member of the zoo’s firearms team was headed towards one of two gun safes maintained on the zoo’s property. The firearms team member selected a 30.06 rifle from the safe and proceeded towards the tiger habitat.

Initially, the tiger did not respond to being called inside. Keeper 1 ran into the building and grabbed some of the meat in the event the plan shifted to simply luring the tiger away from the Tiger Keeper in the outdoor habitat. Keeper 1 returned to the outside vantage point.

Having heard a follow up radio call, a third keeper (Keeper 3) arrived quickly at the tiger habitat from the nearby Children’s Zoo Barn. Keeper 3 assisted Keeper 2 in trying to call the tiger inside.
Keeper 3 took some meat to take to the outdoor habitat. As Keeper 3 was heading towards the outside area, the tiger entered the building and was secured inside by Keeper 2. Keeper 2 declared an “All Clear” over the radio system giving staff and first responders clearance to enter the outdoor tiger habitat and begin administering first aid.

Just prior to the arrival of the zoo’s firearms team member at the tiger habitat, the tiger had entered and been secured in the inside tiger holding area.

**Violation of Protocol:**
Zoo policy never allows for a person and a tiger to share the same space. Multiple Zoo protocols and procedures dictate what must happen before a staff person enters a space previously occupied by a tiger. On the morning of April 20, a staff person omitted the crucial step of locking the tiger inside prior to the staff person entering the outdoor habitat.

Prior to the tiger incident occurring, safety protocols centered on duplication of processes such as two doors to unlock and enter to gain access to the tiger holding building and two locks on every door that a person might use to enter a space that a tiger may have access to. Specific instructions detail the sequence of steps that tiger keepers follow through the progression of daily tiger management. Until that morning, these policies and protocols had provided safe management of large cat species at the zoo. As evidenced by the events of the morning of April 20, these policies which proved safe for decades did not prevent a human from skipping a critical process (securing a tiger in an inside space prior to entering the outdoor habitat) and creating a dangerous situation.

**Process Correction:**
Within two hours after the incident occurred, the Zoo’s two Animal Care Supervisors put into place additional policy to prevent the chance of human error repeating a situation like the one that occurred the morning of April 20. The zoo’s organizational culture allows frontline leadership to put safety related procedural changes in place prior to formal review with senior management. The change that the Supervisors put into place is that before a person enters a space that a potentially dangerous animal was previously authorized to access and vice versa, a second person must check locks, doors and location of animals within, before a staff person opens a door or gate to that previously authorized space.

While this change in policy is a clear enhancement to reduce the risk of human error, we don’t know that it is our end policy. In the days leading up to this event, the Zoo’s Animal Care Supervisors were at an Association of Zoos and Aquariums Safety Summit in which a topic of discussion was a Two Lock Two Key System for potentially dangerous animal management. In this system, there are two differently keyed locks on all potentially dangerous doors and no staff person has both keys to both locks.

It is the current belief of management that the Two Key Two Lock system is the long-term direction the Zoo will pursue. We will spend the next 90 days evaluating our facility in line with the Two Key Two Lock system and the resources needed to safely operate it. As part of this evaluation, we will work with an
outside consultant. If through the evaluation process our hypothesis holds true, we plan to implement the Two Lock Two Key System by the end of the first quarter of 2020 based on an approximate three month evaluation and facility modification process followed by a six month training and implementation process.

**Emotional Wellbeing of Zoo Staff:**
Within an hour and a half of the emergency the City of Topeka Human Resources Director was in touch with the Zoo Director wanting to know what resources may be helpful to staff involved in the incident. Based on the Zoo Director’s initial interview with Zoo Keepers 1, 2 and 3, the Zoo Keepers welcomed the opportunity to debrief in a professionally guided situation. As such, a counselor was available on April 21. On Monday April 22, all paid and unpaid staff of both the Zoo and Friends of the Zoo were allowed and encouraged to participate in the first of two group sessions with the Topeka Police Department’s Peer Support Team. On Tuesday April 23, through the City’s Employee Assistance Program, private counseling sessions were available to anyone involved with the incident. Three additional days of private counseling sessions were offered. Additionally, as per normal, employees have access to the Employee Assistance Program on their own initiative.

**Outside Agency Review:**
There have been a lot of questions as to what outside agencies will review this incident. There is one agency responsible for a holistic review with the purpose of preventing similar incidents from happening again – that agency is the City of Topeka. Other agencies will review from the angle that relates to their authority. The USDA will review as it relates to the Animal Welfare Act. OSHA does not regulate governmental organizations. The government counterpart to OSHA is the state level Department of Labor. The KDOL will review the incident from the perspective of employee safety. The final agency to review the situation is the Association of Zoos and Aquariums (AZA). The AZA will perform an in-depth evaluation as to whether or not the Topeka Zoo had sufficient policies up to industry standard in place to prevent an incident like this from happening. The AZA will utilize its Accreditation Commission to make this determination.

- **USDA** – The USDA and specifically the APHIS (Animal and Plant Health Inspection Service) is responsible for reviewing this incident as it relates to animal welfare within the standards of the Animal Welfare Act. The Topeka Zoo has a history of self-reporting potential violations of the Animal Welfare Act with APHIS. In that vein, it is also important to note that the Topeka Zoo does not determine whether or not an item or act is compliant or noncompliant with the Animal Welfare Act. That responsibility lies with APHIS Veterinary Medical Officers (VMO) and their superiors. As such, in self reporting the Zoo only relays information. Information was relayed to a VMO on April 20, 2019 regarding the Zoo’s tiger incident. A VMO arrived at the Zoo on the morning of Wednesday, April 24 to gather information. The next morning, she arrived to gather additional information. Based on the information available to that point; because the tiger was not injured, the tiger never left the enclosure, no members of the public were injured and the fact that the staff person involved was clearly an experienced employee – there was no apparent animal welfare issue.
• Kansas Department of Labor — A Safety and Health Inspector from the Kansas Department of Labor was on site to interview management staff and to see the site where the incident occurred on the afternoon of Thursday, April 25. The inspector returned for additional information on Wednesday, May 8. During the review by the KDOL, the inspector interviewed staff regarding safety protocols, reviewed training processes and reviewed the tiger programs Continuity of Operations Plan. The inspector also reviewed the qualification of the Tiger Keeper. Zoo staff shared with the inspector the protocol change to the Two Person System implemented the day of the tiger incident. On Friday, May 10, the KDOL released their findings that the Topeka Zoo is not required to make any additional changes.

• AZA – The Association of Zoos and Aquariums is the accreditation authority that the Topeka Zoo and Conservation Center belongs to. AZA was notified about the incident within an hour of the time the incident occurred. As it relates to this incident, AZA will review the incident to understand what happened and focus on preventing such incidents from recurring at all AZA accredited institutions. As such, the Topeka Zoo will provide an initial report to the accreditation commission and will follow up on any recommendations or questions the Commission may have.

Other Enhancements:
Immediately following this incident, a procedure was put into place using a second person to prevent an emergency of this nature ever occurring again at the Topeka Zoo. While that procedure was already in place with elephants and apes, it now applies to all carnivores as well. Additionally, Zoo management wanted to perform a comprehensive review of all of the Zoo’s carnivore facilities and procedures with the intent of providing additional policy to guard against further incidents. To that end, the following items were or are being evaluated:

• Ante Areas (Safety Entrance) to potentially dangerous animal areas – Some of the Zoo’s carnivore habitats have outdoor habitat entrances that assume all protocols and policies are followed correctly before a staff person enters the outdoor habitat. Because this incident points to the fact that human error is something we need to guard against, the decision has been made to fabricate and install safety entrances at all large carnivore outdoor habitat entrances to insure that when an outdoor habitat receives routine servicing, there is never an open access point to the habitat

• CO2 Fire Extinguishers – The Topeka Zoo maintains several CO2 fire extinguishers to be used in an animal emergency or animal introduction if needed to alter aggressive acts between conspecifics. Previously, the CO2 extinguishers were stored in a centralized building within the zoo’s property ready for deployment when needed. When a CO2 fire extinguisher is activated, it releases a loud roar and creates a fog that can distract an animal. The use of a CO2 fire extinguisher was not needed in this emergency. However, because of how fast this emergency played out, if a CO2 extinguisher would have been needed, retrieving one from the stored location would have been time prohibitive. The zoo is in the process of ordering a CO2 extinguisher for each building. They will be installed in each building at the same location to
make them easier to find in an emergency situation. They will be clearly labeled so that they can be differentiated from the dry powder extinguishers to be used in a fire related emergency.

- **Pepper Spray** – Inside each potentially dangerous animal holding building there is a pepper spray canister in a wall holder painted in a bright yellow color. This canister is placed in a location for a staff person to grab in the event of a potentially dangerous situation. While it is not required, the zoo maintains a supply of smaller canisters that can be worn on a person for staff who choose to do so. The potential use of pepper spray was evaluated during this incident. In regards to the Tiger Keeper, the use of pepper spray is considered to be contraindicated. The Tiger Keeper was only two steps into the exhibit when she saw the tiger. Her instinct was to retreat to the exit. Within that time, the tiger grabbed her and pulled her back into the exhibit. It is estimated that the Tiger Keeper would not have had time to grab and discharge the pepper spray before the tiger was on her. With the emergency response, pepper spray was on scene. Because of the relatively calm nature of the tiger, the decision was made not to discharge pepper spray in fear that the spray might incite the tiger. In hind sight, this was the right decision for this emergency. As such, management continues its policy of providing pepper spray to staff that want it but not requiring that it be worn by every employee.

- **Panic Alarms and Personal Body Alarms** – This item of consideration does not apply to this emergency. This emergency did raise the question with staff as to what if this scenario presented itself on a cold winter day when there might not be someone that witnesses an emergency. The Topeka Zoo is investigating options of a device that staff can wear on their body that would declare an alarm even when the staff person in danger cannot declare the alarm on their own behalf.

- **Monthly Staff Tours** – This item also does not directly relate to this emergency but relates to the general emergency readiness within the team that operates the Topeka Zoo. This emergency reminds us that you cannot readily predict when or where your next emergency will take place. Based on those unknowns, we visualized a need to get all of our staff into all of our buildings on a regular basis so that all of our staff can be more comfortable with the situation if they find themselves actively managing an emergency situation. As a collective team that operates the Topeka Zoo, we meet on the first Wednesday of every month. With our May meeting we began a plan where each month we will tour an area of the Zoo.

**Emergency Response Tactics to Improve On:**
The staff at the Topeka Zoo regularly tabletops and practices drills for a number of situations. It is our belief that practicing emergency drills led to the rapid outcome of this event. This was the first incident of this nature in this zoo’s history. Given that this was a terrible experience from the get go, a better outcome could not have been imagined. Immediately after the incident was resolved, a request was made of all paid and unpaid staff for a statement of what they saw, heard and did during the emergency. A debriefing was held with Keepers 1, 2 and 3 and a debriefing was held with the entire staff. On June 5, the zoo will conduct drills on the emergency reenacting exactly what happened and then reviewing what could have been done better.

Even before that review begins, we can identify ways we can improve our emergency responses. Some of those observations and improvements are as follows:
• Training drills are valuable however, this real emergency played out much faster. In a drill, our tendency has been to role play all the different steps that occur in a potential situation one at a time. This emergency demonstrated that many emergency processes transpire simultaneously. We think we can come up with a better system for drills that can better replicate a true emergency environment with multiple active processes.

• Radio Communication - Radio communication is something we work on in every drill. Given the speed and outcome at which this emergency resolved, it is hard to be critical at how the radio communication was managed. Having said that, it was unclear for support staff to know who the ICO was. Because most of our drills center around complicated and worst case emergencies in which for public safety reasons the zoo gets closed, the Zoo was closed for a brief time the morning of the tiger incident. However, the Zoo closed after the tiger was secured in the building. These are items we will work on as we reenact this emergency and drill on others.

• In an Emergency, Things Happen Fast – As referenced earlier, we will be making an effort to make sure that items needed during emergency situations are readily accessible throughout the Zoo and where possible, emergency items are stored or installed in similar places in all facilities.

Conclusion:
Until a perfect system can be put in place that can prevent the possibility of human error from occurring, organizations that manage potentially dangerous animals must have facilities and teams prepared for emergency situations. The Topeka Zoo family would like to express our sincere gratitude to the Docent and Guest 1 and 2 for their willingness to act in a critical situation and to Keepers 1, 2 and 3 for their swift and decisive actions that most likely saved the life of a coworker.