

# SEAWORLD PARKS & ENTERTAINMENT.



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RE: Docket No. APHIS-2006-0085

SeaWorld is pleased to submit the following comments on amendments to the Animal Welfare Act (AWA) regulations for the humane handling, care, treatment, and transportation of marine mammals in zoological environments (9 CFR Parts 1 and 3 subpart E §§ 3.100 through 3.118). The changes proposed by the Animal and Plant Health Inspection Service (APHIS) would affect sections of the regulations relating to variances and implementation dates, indoor facilities, outdoor facilities, space requirements, and water quality. Proposed amendments would also affect sections in the regulations for the protection of all marine mammals taking part in interactive (e.g., swim-with) programs.

## **OVERVIEW**

SeaWorld appreciates the thoughtful, scientific and evidence-based approach APHIS applied in development of the proposed regulations. Taken together, the proposed regulations reflect a constructive effort to modernize the current framework and speak to the agency's understanding of issues critical to animal health and well-being based on the latest and best research and operational knowledge. As we look forward to the finalization of these rules, SeaWorld hopes that the agency continues to follow a science-based process in the development of any new regulatory requirements.

Throughout the comment process, SeaWorld has collaborated with the foremost zoological associations and partner organizations with the goal of providing data-driven feedback that builds on the foundation set by APHIS in its proposal. We view all our comments through two lenses: 1) basing animal-care decisions on the best science and data to support what is in the best interest of the animals, and 2) implementing any required changes with the least possible adverse near-term impact to animal care and well-being. To that end, while supportive of the agency's goals and overall approach, we have specific concerns related to:

- proposed changes to water quality standards;
- new shade requirements;
- proposed handling and reporting obligations for interactive programs;
- implementation dates, timelines and variances requirements; and
- indoor lighting.

On the issue of space requirements for pinnipeds and other marine mammals, SeaWorld supports the agency's proposed rules, but with respect to proposed Group I/II classification for certain animals under certain conditions, we suggest better approaches to managing short-lived, seasonal aggressive behavior, such as alternative housing and management practices. We agree with the APHIS's decision to not

change space requirements for cetaceans in the current rules for the reasons outlined by the agency during the conference call when the rules were released.<sup>1</sup> Should the agency eventually seek to address space requirements, SeaWorld recommends that the review include a modernization of the existing formulas to take into account all that the scientific community continues to learn about these animals' swimming behaviors both in human care and in the wild.

While beyond APHIS's authority under the AWA, SeaWorld appreciates the agency's recognition of the extraordinary circumstances that can arise from animal rescue and rehabilitation efforts. These activities are directly supported by the knowledge and understanding we continually gain from the animals under our care.

Finally, it is our hope that this rulemaking will continue to be driven by the best available scientific information, currently accepted practices of accredited zoological parks and aquariums, and the knowledge and experience gained by APHIS's Veterinary Medical Officers (VMO) and other experts over the past 40 years.

## **BACKGROUND**

### **History and Mission**

SeaWorld was granted its first license in San Diego as an Exhibitor under the AWA in 1974. SeaWorld Orlando and SeaWorld San Antonio were licensed in 1977 and 1993 respectively. From the beginning, SeaWorld parks have complied with APHIS standards and policies. We are recognized for successfully caring for the largest zoological collection of marine mammals in the United States and, with more than 27,000 rescues in our history, we are one of the foremost leaders in animal rescue and rehabilitation. During this time, we have spent tens of millions of dollars on these rescue and rehabilitation efforts and have treated some 490 whales and dolphins, 544 manatees and 7,159 pinnipeds, all with the goal of returning them to the wild.

The activities we undertake to support the rescue and rehabilitation of wild animals are critical to our mission. Just last year, SeaWorld rescued close to 1,000 stranded California sea lions. While that rescue effort taxed both our facilities and our staff, the results were tremendous, with the majority of the animals returning to their ocean homes. With ever-increasing man-made pressures on these animals' natural habitats, zoological organizations, in collaboration with our federal partners, must be prepared to assist in moments of crisis.

Marine mammals at SeaWorld are maintained according to the highest standards of animal care. We are dedicated to continually improving environments and the well-being of all the estimated 800 species

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<sup>1</sup> *"...we are not proposing changes to the minimum space requirements (i.e., minimum horizontal dimension (MHD), depth, volume, and surface area) at this time. In light of the disparate recommendations by the ANPR commenters (2002) and the limited scientific data available on this issue, we do not have sufficient scientific or other supporting data to propose space requirements changes at this time. We would appreciate any published literature, science-based data or other studies that would support changes in the space requirements for any marine mammals."*

There are few – if any – studies that examine the use of space for cetaceans currently housed in zoological facilities. Many of those studies are underway now and are in their infancy. New technologies (accelerometers and data trackers) are making good data collection possible. However, the studies to assess with statistical accuracy how and where animals are spending their time, and any associated beneficial or deleterious effects to their health, are not yet available. This topic can and should be considered in future updates to the standards.

we are privileged to maintain in our collections and to improving our guest interactions with these animals, especially in our world-class interactive programs.

In 1998 SeaWorld began interactive programs with marine mammals at two of its then-existing parks and expanded these offerings with the opening of Discovery Cove in Orlando, Florida. Since that time, more than 4,000,000 guests have participated in these programs, making SeaWorld a global leader and expert in interactive programs.

All marine mammals involved in our interactive sessions are well trained using positive reinforcement operant conditioning. Every session is overseen by professional staff trained in and charged with the safety of both animals and guests involved in the interaction. All programs start with presentations that cover safety, animal well-being and participation protocols. Marine mammal natural history, behavior, communication and conservation needs are shared and discussed throughout the interaction.

Today, these successful animal-encounter programs include hands-on experiences with dolphins, beluga whales and sea lions in multiple settings that range from in-water interactions, poolside encounters, in-depth guided tours and custom-designed sessions. Since these programs were introduced, countless inspections have been made by APHIS VMOs, who have substantial experience working with marine mammals. The records and findings from these inspections speak to SeaWorld's commitment to and excellent performance in caring for all animals in our parks, with no instance of unresolved issues.

The breadth and depth of SeaWorld's own work has led to advances in care for and protection of marine mammals in zoological facilities and wild populations worldwide.

### **Accreditation**

SeaWorld has a long history of developing and adopting state-of-the-art animal care and welfare practices. The quality of care provided in our parks is affirmed through the accreditation of two of the foremost professional zoological organizations in the world – the Association of Zoos and Aquariums (AZA)<sup>2</sup> and the Alliance of Marine Mammal Parks and Aquariums (AMMPA).<sup>3</sup> We are proud that our parks have earned recognition for excellence through these two accreditation programs involving rigorous and lengthy operational and facility assessment; stringent, multiple-day inspections; and species-specific examination by experts in the field.

### **Care Applied in Marine Mammal Rescues**

SeaWorld partners with state and federal governmental authorities, non-governmental organizations (NGOs) and the National Oceanic and Atmospheric Administration (NOAA) and US Fish and Wildlife Service (FWS) Stranding Response Networks in the United States to provide 24/7 response to injured or endangered animals. When disease, oil spills or environmental emergencies arise, SeaWorld's professional staff is trained, certified and ready to respond. Additionally, SeaWorld applies knowledge acquired from in-park veterinary medical and behavioral experience to fearful and agitated animals languishing in pain. Rehabilitative care is provided to all animals that need time to recover from their trauma. Stranded marine mammals benefit from the existence of our in-park labs, treatment and surgical areas, holding facilities and animal care staff.

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<sup>2</sup> The Accreditation Standard and Related Policies, 2016 edition:

<https://www.aza.org/uploadedFiles/Accreditation/AZA-Accreditation-Standards.pdf>

<sup>3</sup> Alliance Standards and Guidelines: [http://www.ammpa.org/docs/S\\_GSummary2010\\_2.pdf](http://www.ammpa.org/docs/S_GSummary2010_2.pdf)

## COMMENTS

SeaWorld offers the following comments with respect to specific sections of the proposed rule. They are raised here in order of importance to the care we provide for our animals and their impact on operations and facility management.

### §3.106 Water Quality – Bacteriological Standards

With respect to water quality in our marine mammal habitats, we work to maintain healthy water systems and have always met APHIS standards. Consistent with this approach, SeaWorld strives to provide animals with an environment that replicates the important components of their natural habitat as closely as possible. Existing and emerging science clearly demonstrates the importance of this philosophy in the promotion of animal health and welfare.<sup>4</sup> This work includes SeaWorld's commitment to managing clean and microbiologically diverse systems today and in the future that would allow the integration of multiple species – including mammals, fish and invertebrates – in a single habitat.

We are concerned that the proposed rules may in fact limit facilities' ability to manage these microbiologically diverse marine habitats that benefit resident species. We recommend generally that any update to water quality standards should be drafted in a way that allows for continued work toward the establishment of microbiologically diverse habitats. While broad water quality measures, such as total coliform counts, are an easy-to-apply, topline measure of bacteriological levels, they are ill-suited for evaluating and maintaining complex systems where environmental health can depend on the presence of certain bacteria and the elimination of others. To address specific concerns in this proposal, SeaWorld suggests a standard that moves away from a total coliform count and instead addresses enterococcus spp. – known to cause illness in humans and presumed to do so in marine mammals as well. While a standard developed to protect human health may not comprehensively cover risks to non-human mammals (marine mammals in this case), it is reasonable to adopt the human-health standard for a single genus of pathogenic bacteria as an indicator species.

Although water management is critical to preventing disease, there is a growing awareness in general veterinary care, and in the field of marine mammal health in particular, about the health impacts associated with very clean or "sterile" environments. However, not much is known. SeaWorld is pleased to be a contributing member of the water quality working group, led by Shedd Aquarium, in partnership with academia and others in the aquarium community.<sup>5</sup> We and others hope that APHIS will adopt water quality standards that are flexible enough to accommodate findings from the partnership's work, as well as continued changes to the science of water quality management in

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<sup>4</sup> Spoon, Tracey R., and Tracy A. Romano. "Neuroimmunological response of beluga whales (*Delphinapterus leucas*) to translocation and a novel social environment." *Brain, behavior, and immunity* 26, no. 1 (2012): 122-131.; Van Bonn, William, Allen LaPointe, Sean M. Gibbons, Angel Frazier, Jarrad Hampton-Marcell, and Jack Gilbert. "Aquarium microbiome response to ninety-percent system water change: Clues to microbiome management." *Zoo biology* 34, no. 4 (2015): 360-367.

<sup>5</sup> The focus of this work is to better understand the microbiology (bacteria, viruses, et al.) that is found in aquarium and oceanarium waters through DNA analysis and to then understand the health implications for mammals and fish living in those environments.

controlled environments. To that end we propose expanding APHIS's revised section on variances as described below.<sup>6</sup>

Should APHIS decide to retain its proposed coliform standard (even as a default alternative standard), SeaWorld notes that the proposed changes to the bacteriological standard from 1000 colonies per 100 mL to 500 colonies per 100 mL is inconsistent with the methodology and science cited by the agency. Based on the best understanding of coliform ratios, including those relied on by APHIS and adopted by other federal authorities, the total coliform count corresponding to APHIS's targets would be roughly 2300 per 100 mL, not 500 per 100 mL as proposed.<sup>7</sup>

### **§3.103(b) Facilities, Outdoor, Shelter**

Another important element of animal welfare addressed in APHIS's proposed changes is shade at outdoor facilities. APHIS points out in its preamble that "[pinnipeds, based on cited reference] are susceptible to overheating and sunburn and/or eye damage from direct and/or reflected sunlight, and UV light reflections can cause or exacerbate damage to marine mammal eyes." While SeaWorld is fully supportive of APHIS's goal of protecting against harm from sunlight exposure and agrees with the agency's avowed performance-based approach to standard setting (discussed in greater detail below), we have serious concerns about the flexibility of this provision and the definition of the term "protection," as well as about timing and implementation dates.

SeaWorld recognizes that APHIS is adopting a performance-based standard that is compatible with published AZA standards and that "allow[s] facilities to provide the required amount of shade according to the unique conditions of each enclosure." Species considerations are also an important part of defining what level of "protection" from direct sunlight is beneficial. For example, pinnipeds, as an order, generally spend more time out of the water and in sunlight (direct and indirect) than do cetaceans. Accordingly, shade requirements and reduction of UV exposure would vary from facility to facility and for different animal orders.

While we agree with APHIS's performance-based strategy, we believe that additional language would help establish what level of performance would satisfy the new regulatory standard. Specifically, we recommend that the second sentence in the proposed regulatory text be changed to clarify what it means to "protect marine mammals from direct sunlight." The new language might read:

*"Shade shall be provided to protect against the risk of harm from overheating and sunburn and/or eye damage [the potential harm mentioned in the preamble] from direct*

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<sup>6</sup> This more flexible approach to variances is described below in the discussion of "§3.100 Variances and Implementation Dates."

<sup>7</sup> As stated in section 3.2.1 of the APHIS-cited reference, Health and Ecological Criteria Division, Office of Science and Technology, EPA, Office of Water 820-F-12-058 "Recreational Water Quality Criteria," a fecal coliform density of 400 cfu per 100 mL corresponds to a total coliform density of 2300 cfu per 100 mL. Therefore, if a maximum fecal coliform density of 400 cfu per 100 mL is acceptable (as stated in the APHIS discussion of the proposed amendment), then the corresponding maximum total coliform density would be 2300 cfu per 100 mL.

*and/or reflected sunlight as determined by the attending veterinarian and documented in an animal or facility management plan.”*

With respect to limits on animals facing the sun, the provision is currently written as a one-size-fits-all absolute prohibition. To address inter- and intra-species variability, as well as differences in habitat design, we recommend adding the following sentence to the end of the new § 3.103(b):

*“Feeding and training sessions must be conducted in a manner appropriate to the species and their daily behavior, and shade shall be provided to limit instances where those animals would be required to look directly into the sun or in medical pools where infirmed animals may spend more time out of water.”*

Both of these additions mirror explanatory language that APHIS itself uses in the preamble to the proposed rule.

With respect to the lead time facilities will need to meet new standards, we note that the costs associated with retrofitting outdoor facilities under this proposal will not be trivial. Construction costs at our facilities alone are estimated to be \$22 million (assuming the interpretation of certain language addressed above is clarified). Perhaps more important, however, are the technical and logistical challenges of building new permanent structures near and over facilities currently housing animals. SeaWorld acknowledges that, in the interim, the proposal provides for the use of “temporary [shade,] for easy movement or deployment,” to meet new shade requirements. While this allowance may enable the easy and fast deployment of new shade at many habitats, it is not a comprehensive, permanent solution to the concerns raised by APHIS. In some cases (where, for example, there are heavy winds or other meteorological events) it may not be possible to use temporary shade to meet the agency’s performance-based goals for minimizing potential harm from over-exposure to direct sunlight. For this reason, SeaWorld anticipates needing to construct permanent shade structures at many enclosures. As described below, our current estimate is that it would entail three years of planning and work.<sup>8</sup>

Most shade structures will have to be custom designed due to site limitations, span or cantilever distances, and high wind loads (130+MPH), all of which will impact the time and cost to implement. Moreover, every phase of design, engineering and construction must contemplate and address potential health risks to the animals associated with construction noise and accumulated debris around the environment. Based on these and other considerations, it will take a significant amount of time to properly design, develop, permit and construct permanent structures that meet APHIS’s performance-based standard across our broad spectrum of facilities and animals. At facilities like SeaWorld’s, factors such as where and how to house populations impacted by construction will need to be addressed and projects will sometimes need to be done in sequence, or construction delayed, in order to avoid the potential detrimental impact of construction on the animals.

Based on what we know about particular design and installation challenges, and the number of affected habitats (55 in the case of SeaWorld), we believe that we will need an implementation window of three years to make the necessary changes in ways that do not impede animal care. APHIS knows from its inspections and other engagement with exhibitors that there are significant lead times required to

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<sup>8</sup> If more time is needed, facilities should be able to apply for a variance. As detailed below, we believe that APHIS’s approach to granting variances should extend beyond size requirements and cover other aspects of the regulations, including shade and water quality.

design, engineer and construct structures necessary to become compliant with new requirements. Specifically, with respect to proposed shade requirements, rough estimates for some phases of the timeline include the following:

1. Assessment of needs – three months
  - a. Given a performance-based standard, a comprehensive internal assessment will be necessary to identify project sites and needs.
2. Preliminary Design – three months
  - a. This includes surveying the area in which the structure will be erected, accounting for current facilities, available space, geographic features of the land, and animals for which the structure will be used.
  - b. It also includes proposed design solutions and estimates for the cost of the work.
3. Full Design – nine months
  - a. This includes design and all related engineering for the structure, foundations and any required modifications to the habitat or surrounding facilities.
4. Procure and Permit – six months
  - a. This includes bidding the work, vendor/contractor selection and awarding.
  - b. This also includes time required to secure necessary government/regulatory permits.
5. Construction – 12 months
  - a. This includes time necessary for the contractor to mobilize, procure materials, and install footings and foundations.
  - b. It also includes work to actually install structures, completion of ancillary projects, and clean-up activities.
  - c. Some contingency will be necessary in most cases to account for limited work hours and the need to suspend work for indeterminate periods based on animal health and husbandry needs.

### **§3.111 Interactive Programs with Marine Mammals**

SeaWorld agrees with APHIS that marine mammal interactive programs should satisfy all the requirements set forth in 9 CFR parts 2 and 3 addressing animal welfare in general. In fact, inspected facilities with interactive programs have consistently adhered to all such applicable regulations. The preamble for the proposed rule notes that APHIS’s VMOs have inspected interactive programs for nearly 20 years, “without any indications of health problems or significant and ongoing incidents of aggression in marine mammals, as evidenced by medical records maintained by licensed facilities and observations by experienced APHIS inspectors.”<sup>9</sup> This is certainly the case with interactive programs conducted at all three SeaWorld parks and Discovery Cove.

We agree with the proposal to harmonize space requirements under §3.111(a), covering interactive, buffer and sanctuary areas, with §3.104. This latter provision establishes performance-based standards that encourage flexibility while promoting the health and well-being of the marine mammals participating in interactive programs. We also support the employee training requirements and, based on the current range of interactive programs, water clarity standards established under proposed

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<sup>9</sup> APHIS Notice of Proposed Rulemaking, footnote 24; 81 F.R 5640.

§3.111(b) and (c).<sup>10</sup> However, with respect to proposed §3.111(d) and (f), SeaWorld has several significant and specific concerns.

First, two prescriptive requirements on handling, discussed below, actually run counter to our experience with animal welfare in interactive sessions. We suggest that APHIS adopt a more flexible approach, consistent with the agency's overall commitment to setting performance-based standards. Second, proposed language in new §3.111(f) would significantly expand facilities' reporting obligations beyond the scope of APHIS's statutory authority under the AWA. Furthermore, apart from SeaWorld's jurisdictional concerns with the entire §3.111(f), the general and overbroad nature of the language on incident reporting would, if implemented as is, massively **increase** reporting requirements (contrary to APHIS's claim of a reduced paperwork burden for interactive programs) without any perceived need or resulting benefit. We therefore suggest this provision be eliminated or substantially revised.

### §3.111(d) - Handling

APHIS proposes under the Handling section, §3.111(d)(1), that:

*"Interactive time between marine mammals and the public (i.e., interactive session) must not exceed 3 hours per day per animal. Each animal must have at least one period in each 24 hours of at least 10 continuous hours without public interactions."*

SeaWorld's evidence-based approach to interactive times is based on our observation and care for the animals that have thrived in our interactive programs beginning in 1998.<sup>11</sup> We have earned a well-deserved reputation among marine mammal experts, and those with the greatest experience and knowledge about marine mammal care and husbandry, for putting the health and welfare of our animals above all else. Our approach to managing participation in interactive sessions, and indeed all other aspects of animal care, is based on real-time evaluations of each animal's needs and behavior; one size does not fit all because every animal is different and so are their social inclinations.

While we agree with APHIS that unrestricted interactive-session participation may present some risk to animal health and welfare, we believe that decisions about the appropriate time limits are best made by the professionals directly involved in caring for the animals based on day-to-day assessments of the needs and behaviors of individual animals. SeaWorld is concerned that the rigid application of an unwarranted and unsupported three-hour-per-day-per-animal limit will prevent us from following this approach. As further explained below, our interactive sessions are enrichment and behavioral opportunities for the animals and we base session scheduling decisions around the animals' choice to participate.

In offering our comments, we recognize that different commenters will approach issues tied to interactive programs differently. Some involved in the rulemaking may view the programs as exploitative and seek to impose limits that discourage animal participation in interactive sessions. We, and the relevant science, take a dramatically different view. Our animals, staff and guests all approach interactive sessions as enrichment opportunities that contribute to the animals' growth, welfare and

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<sup>10</sup> SeaWorld believes that future interactive programs may be designed to take place in environments that do not provide for continuous observability. It would be helpful if APHIS preserved facilities' ability to work with the agency to design interactive programs that meet alternative water clarity standards that still satisfy the agency's overall objective of providing a safe and controlled environment during sessions.

<sup>11</sup> Since enforcement of the two-hour-per-day limit was suspended in 1999, we have tested interaction times ranging from less than 30 minutes to over four hours in a given day.

behavioral health.<sup>12</sup> In addition, it is important to consider that animals do not follow strict scheduling cues the way humans do. Animals in general, and dolphins in particular, benefit from variability in their schedule and days. We have frequently limited participating animals to one or even no sessions in a day. We always make these decisions with the best interests of the animal in mind.

Animals thrive within these programs because we take a proactive, animal-centric approach to behavioral management. As a result, very seldom does a schedule include more than three hours of interactive per day. When participation does exceed three hours, however, it is because the animal is engaged and continuing to benefit from the activity. Based on our decades of experience, we agree with the principles underlying APHIS's proposed standard, but believe that limits on animal participation should be set by attending staff that can base their decision on individual assessments that will vary day to day. To best accommodate this approach, we suggest APHIS avoid establishing a defined time limit in its regulations. We recognize that APHIS must craft its rules to cover all facilities, not only those with the highest level of care. Indeed, APHIS is likely most concerned and focused on those interactive programs that would not meet the level of care provided for in the new proposed standards. If, therefore, APHIS believes that a time limit is needed to protect the health and welfare of participating animals, SeaWorld recommends moving to a per-week limit of 25 hours, while retaining APHIS's proposed 10-hours of continuous non-interaction time in a 24 hour period. This alternate language would allow animals and trained staff to make better decisions about how long interactions should last on an animal-by-animal and day-to-day basis.

One other proposed requirement included in APHIS's treatment of handling rules – that is the proposed prohibition on calling animals back from the sanctuary area – runs counter to SeaWorld's decades of experience in operating swim-with programs that benefit both the animals under our care and our guests. While we support and share APHIS's view that animals should not be forced to participate in interactions during a session, calling animals back is an integral part of training and behavioral management. When an animal departs from a trainer in a session, it can not only disrupt the enrichment and behavioral benefits that the animals gain from the session, but also present a risk to the other animals, guests and employees in the pool. To ensure the safety of animals and guests, zoological professionals involved in the interaction must be able to "recall" the animal whenever it is appropriate.

SeaWorld recommends that APHIS incorporate the following language, as an alternative to the first sentence of §3.111(d)(6), ensuring, as APHIS maintains is its intent, that the element of choice is maintained for the animal:

*"All interactive programs must limit interactions between marine mammals and human participants so that the interaction does not harm the marine mammal or human participants,*

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<sup>12</sup> While data specific to dolphin interactive sessions are still being collected and are not yet published, Jensen et al. (2013) demonstrated that bottlenose dolphins showed clear evidence of anticipatory behavior prior to training sessions, which the authors interpreted as evidence of positive affective behavior and therefore beneficial to the animals' welfare. Dolphins similarly demonstrate anticipatory behavior prior to interactive sessions with trainers and guests. At the same time, evidence (Dold, et. al 1999) shows low levels of stress-related hormones in both dolphins involved in interactive programs, and those involved in purely display settings. See Jensen, A. L. M., Delfour, F., & Carter, T. (2013). Anticipatory behavior in captive bottlenose dolphins (*Tursiops truncatus*): a preliminary study. *Zoo Biology*, 32(4), 436-444.; and Dold, C., Sweeney, J., Reidarson, T., McBain, J., & Monfort, S. (2000). Circulating levels of cortisol and aldosterone in the Atlantic bottlenose dolphin (*Tursiops truncatus*): a comparative look at display animals. In ANNUAL CONFERENCE-AMERICAN ASSOCIATION OF ZOO VETERINARIANS (pp. 494-494). American Association of Zoo Veterinarians; 1998.

*does not elicit unsatisfactory, undesirable or unsafe behaviors from the marine mammal, and does not prevent the animal from moving between the interactive and sanctuary areas during the session. Normal recall-response interactions are not prohibited under this paragraph, as they ensure the safety and health of the animals and guests.”*

This will guarantee that an animal is free to choose to leave and remain outside the interactive area during a session, but that trainers and handlers are able to rely on the very behavioral instruction and training that APHIS acknowledges are necessary to maintaining a safe interactive environment for animals and guests.

### §3.111(f) - Recordkeeping

Of greater concern, is new proposed language in section § 3.111(f)(4), which significantly expands reporting requirements beyond APHIS’s jurisdiction over the health and welfare of animals in interactive programs. Specifically, new language would “expand the applicability of this provision to apply not only in cases of injury to human participants or marine mammals, but also to other members of the public and facility staff.” Such a provision exceeds APHIS’s jurisdiction and statutory authority. The agency is not responsible for overseeing or addressing employee or guest injuries.

With respect to animal health and well-being, SeaWorld understands the importance of documenting events that impact the health and well-being of our animals, whether they occur during swim-with sessions, training periods or any other time. Keeping detailed records and addressing health issues among our animals is critical to caring for them and is already required. That is why we have a robust system in place for recording all information tied to animal care. This information is made available to and reviewed by the agency during their inspections. Specifically, under §3.110(d) of APHIS’s existing rules, the records described in the new proposed reporting requirements, detailing animal health, welfare and care, are already available to agency staff during regular and unscheduled inspections of our facilities.<sup>13</sup> During visits spanning decades, APHIS VMOs have reviewed these records and never has an identified issue gone unresolved. If APHIS believes that other facility operators are not properly keeping or providing access to such records, current agency rules and enforcement provisions are adequate to resolve non-compliance, as the current level of reporting and the process itself works quite well.

As APHIS is also aware, the Occupational Safety and Health Administration (OSHA) is the federal authority responsible for work place safety, not APHIS. OSHA has established documentation requirements and strict obligations to report certain work-related injuries. By law, SeaWorld must comply with OSHA’s regulations and our facilities and documents are subject to regular inspection by OSHA staff.

Furthermore, APHIS’s proposed language appears to contemplate new requirements covering not just employees (the purview of OSHA), but visitors and guests, who are also outside APHIS’s jurisdiction. Under an extreme interpretation of the proposed language, incidents that are not tied in any way to swim-with sessions, much less to participating animals, would be reportable whether they involve participants or observers and whether they occur near a swim-with environment or elsewhere on the premises.

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<sup>13</sup> “individual animal medical records must be kept and made available for APHIS inspection...”

Based on the above review, the reporting requirements included in this section exceed APHIS's statutory authority. Even if this were not the case, however, SeaWorld is concerned that the language of the section is so overbroad and lacking specificity as to require changes.

First, we are concerned by the lack of specificity surrounding APHIS's definition of "incident." Some may try to stretch the current language to cover a host of relatively minor occurrences that do not result in any injury to animals, employees or guests. SeaWorld has a well-established protocol for handling injuries to employees and guests. Each interactive session is closely observed by personnel trained in water rescue and basic first aid. Trained health services staff is on site during all guest interactions to respond to reported guest or employee injuries. In addition, SeaWorld evaluates and documents animal behavior, whether or not injury to a guest or employee is involved. The sweeping reference to any "incident involving injury" in APHIS's proposed reporting requirement does not establish any basic thresholds for what would qualify as either an incident or an injury. While we maintain that APHIS does not have the statutory authority to pursue its proposed reporting requirement, we urge the agency to change any reporting language included in the final rule, eliminating the use of the word "incidents involving injury" and instead clarify what level of harm is involved and how it must arise from an interactive session.

Additionally, subparagraph (4) of paragraph (f), as proposed, includes very broad language dealing with who may be involved in a reportable incident. It is so expansive that it could lead some to read it as covering minor incidents affecting all guests, including ones not tied in any way to animal activities (such as minor slips or cuts to visitors in the park). At minimum, even if APHIS had jurisdiction, the language linking record-keeping and reporting requirements to "members of the public, or facility staff" should be removed and limited exclusively to activities directly occurring during swim-with sessions.

### **§3.100 Variances and Implementation Dates**

SeaWorld supports the proposed new section §3.100, which provides for consideration of a variance for exhibitors and research facilities regarding the size of a primary enclosure. Some facilities may require temporary and, in a limited number of cases, permanent variances for space requirements. SeaWorld believes that the language included here provides the necessary flexibility. However, we note that the language appears to limit the agency's ability to offer variances with respect to other sections of its marine mammal regulations. SeaWorld recommends that APHIS extend its authority to provide variances to other regulatory requirements, particularly in the context of shade at outdoor facilities and water quality standards.

As discussed above, due to the complicated and extensive work involved in substantially adding to or altering our facilities, SeaWorld suggests a three-year implementation period for shade requirements at outdoor facilities. This will allow most facilities to make the required modifications over a reasonable period without causing animals unnecessary distress or harm during the construction process. However, in some cases more time may be required, due to further or unforeseen complications. Applying the agency's proposed variance language to shade would provide more flexibility and allow facilities to apply for and APHIS to review applications for additional time to construct permanent structures that may be needed to meet the agency's performance-based standards.

Expanding the scope of APHIS's variance provision could also address future problems arising from the limits that the proposed rule might impose on refined water quality standards and habitat design and management. There are many scenarios in which variances from individual standards may enable

research and understanding of how design elements can promote or undermine animal health and welfare. We request that the agency consider a variance mechanism that would allow permitted facilities to apply for temporary suspension of existing standards in order to explore new housing criteria that will inform future APHIS decisions. For example, should water quality standards prevent research into the effects of a diverse microbiome on resident animal health, a defined variance in the coliform standard would allow for exploration of new techniques.

Alternative regulatory language would simply amend the final few words of proposed §3.100(a), so that it reads:

*“All persons subject to the Animal Welfare Act who maintain or otherwise handle marine mammals in captivity must comply with the provisions of this subpart, except that they may request a variance from the Deputy Administrator from one or more specified provisions of this subpart.”*

All other elements of the variance application process would remain the same and provide APHIS with the discretion to review and evaluate and grant or deny all such applications.

### **§3.102(c) Facilities, Indoor – Lighting**

SeaWorld supports lighting standards to approximate conditions found in the natural environment, including the provision of full spectrum lighting. Language in this section about performance-based standards, minimum periods of darkness and the use of full spectrum lighting will ensure that indoor habitats provide appropriate lighting conditions for the animals. Outdoor daytime light levels can vary between 10 and 10,000 lux. We note that the revised language proposed for lighting states that “artificial light levels measured 1 meter above pools or decks should not exceed 500 lux.” The narrative in the docket discusses the minimum (as opposed to maximum) light levels “sufficient to provide proper illumination for marine mammal primary enclosures.” We recommend striking the third sentence in this section, due to confusing references as to the need to limit light to 500 lux. Other language in this section about performance-based standards, minimum periods of darkness and the use of full spectrum lighting will ensure that indoor habitats provide appropriate lighting conditions for the animals. With the elimination of the maximum light level, this recommendation is compatible with the lighting standard we meet for accreditation by the AZA.

### **§3.104(d)(1) Space Requirements**

As noted in our opening comments, SeaWorld supports the agency’s proposed approach to amending space requirements, and we concur with the proposed additions and clarifications for Sirenians under new § 3.103(a)(3), §3.104 and Table 2. However, we request that the agency reconsider reclassification of California sea lions and other otariids to Group II when two or more sexually mature males are present. The proposed changes would require us to nearly double our existing primary enclosures, and there is no evidence and we have no experience from the last 50 years that support the need for such a provision. Further, as suggested, the normal social behavior for male pinnipeds, and largely for otariids, includes instances of aggression. Because the habitats and environmental conditions we provide are designed to allow expression of natural behaviors, including aggression that does not lead to significant or extraordinary harm, space requirements should not be amended to eliminate all potential for such behavior. Some inter-male aggressive behavior is normal and may even be beneficial to the animals or population. As these are carefully managed populations of animals, and inter-male aggression is widely known to occur during a short season, there are more appropriate alternatives to address APHIS’s concerns than regrouping the animals to provide for enhanced space requirements. Risk from short-

lived aggressive behavior among male Group I pinnipeds (such as California sea lions) could be better addressed by ensuring that housing and management practices limit seasonal inter-male aggression. Methods to achieve this could include visual barriers, larger single habitats or temporary housing in separate habitats that still meet the minimum requirements for Group I animals.

As an example, the proposed addition of California sea lions to the list of Group I Pinnipeds considered Group II when two or more sexually mature males are maintained together would have significant impacts on our facilities. This change would mean that the dry resting and water surface area requirements for primary enclosures with more than two adult male California sea lions would increase by up to 45 percent. We do not have the additional space contemplated under this proposal, and substantial construction would have to be undertaken to satisfy revised space requirements. At one site, this could entail construction of three additional holding areas at a cost of \$1,000,000, while the basis for the proposed reclassification could better and more easily be addressed without new construction. As a result we suggest consideration of the following alternative language for animals marked with an asterisk in Table 3:

*“To address concerns about temporary aggressive behavior among males of certain species that can occur during breeding seasons, facilities must take steps to limit the impact of inter-male aggressions when two or more sexually mature males are maintained together. These steps may include visual barriers, temporary relocation or separation. APHIS will consider a variance from space requirements for any measure taken to address such behavior that impacts habitat size.”*

APHIS noted that it will consider any data or studies that may clarify the size of marine mammals and comments on the reliability and utility of the empirical average adult length data that is the basis for this proposed change. The AMMPA AAL survey completed in late 2015 is being finalized for submission near the end of the comment period. The agency should consider the results of this survey as it is considering changes to this section.

In addition, SeaWorld understands the intent of the new language requiring the dry resting area to be “close enough to the surface of the water to allow easy access for entering or leaving on the pool for all animals regardless of age or infirmity.” However, we question whether there is a documented need for new regulatory language based upon inspections or actual cases in which the accessibility of dry resting areas impacted an animal’s health or well-being. Since the revised language is unclear, and therefore subject to interpretation, we are concerned that pools which have been operated successfully for many decades will need to be modified to accommodate requirements that do not benefit the animals. The language creates uncertainty on important considerations, such as what may qualify as close enough; whether the edge of the resting area should be at the water surface or below it; the maximum allowable slope leading up to the large dry resting area; and how the newly created ramp factors into the required minimum for the dry resting area. To address these and other potential concerns, SeaWorld proposes the following language be substituted:

*“If an individual pinniped due to age or infirmity cannot readily access the dry resting area or social activity area, as determined by the attending veterinarian, the enclosure shall be modified to allow ready access, or the animal shall be moved to an enclosure which allows ready access.”*

Lastly, with respect to space requirements for sea otters, we recommend against requiring individual resting spaces with visual barriers or separations, as this is not reflective of how sea otters behave or live in the wild. In addition to housing stranded non-releasable sea otters, SeaWorld works closely with colleagues that study wild sea otters. Based on extensive observations of large groups of sea otters

hauled out on land together and with other marine mammal species in the wild, separation or isolation may in fact be detrimental to the welfare of managed sea otters.

## **CONCLUSION**

Marine mammals at SeaWorld and Discovery Cove are maintained according to the highest standards of animal care. We are dedicated to continually improving environments and the well-being of the many animals we are privileged to maintain in our collections. It is our hope that this rulemaking will continue to be driven by the best available scientific information, currently accepted practices of accredited zoological parks and aquariums, and the evidence gathered by APHIS's VMOs and other experts.

We appreciate APHIS's work in administering and enforcing the AWA and look forward to continued collaboration with the agency, our colleagues in the zoological community and other knowledgeable stakeholders as this rulemaking progresses to completion.

Respectfully submitted,



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