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Note: Text has been edited for clarity.

Departures from the *Guide*

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Broadcast Date: This webinar was originally broadcast on September 13, 2012 and re-recorded on October 4, 2012. View recording at <http://grants.nih.gov/grants/olaw/2012-10-04%2009.41%20OLAW%20Online%20Seminar%20Departures%20from%20the%20Guide.wmv> (Windows Media Player - 58 mins).

Slide 1 (Title Slide)

>> *Ms. Silk:* Hello and welcome to the OLAW Online Seminars series. Today's topic, **Departures from the *Guide***, was originally broadcast on September 13, 2012. The recording you are hearing was made on October 4, 2012 and contains updated guidance on our topic. Briefly, in the September 13 broadcast, one scenario was incorrectly designated. This has been corrected in this recording. All other guidance provided in the previous webinar was correct and is provided again in this October 4, 2012 webinar.

In this revised webinar, Dr. Patricia Brown will be talking to us about Departures from the 2011 or Eighth Edition of the *Guide* [[Guide for the Care and Use of Laboratory Animals](#)]. I am Susan Silk, the moderator for today's webinar. And now let's get started with our seminar: Departures from the *Guide*. Dr. Patricia Brown is the Director of the Office of Laboratory Animal Welfare [[OLAW](#)] at the National Institutes of Health. She received her Bachelor of Science degree in Animal Science from Penn State University and her veterinary degree from the University of Pennsylvania. She served in the Air Force and while on active duty, earned a Master of Science degree in Laboratory Animal Medicine from Penn State. She joined the NIH in 1986 and held positions in the Veterinary Resources Program, the National Cancer Institute, and the Office of Animal Care and Use before joining OLAW in 2006. Dr. Brown.

>> *Dr. Brown:* Thank you Susan. The focus of today's webinar is how the *Guide* Eighth Edition, with its emphasis on performance standards, affects the [PHS Policy](#) [Public Health Service Policy on Humane Care and Use of Laboratory Animals] requirement for the IACUC to report departures from the *Guide* in the semiannual report to the Institutional Official. We will present how the "musts" and "shoulds" in the *Guide* affect departures reporting and some scenarios to show the ways an IACUC may best manage these requirements.

Slide 2 (What Does the Policy Say?)

As many of you know, the PHS Policy requires that Assured institutions base their programs of animal care and use on the *Guide for the Care and Use of Laboratory Animals*. NIH adopted the *Guide* Eighth Edition in 2011 with an expected implementation by Assured institutions in 2012.

Slide 3 (What Does the Policy Expect?)

PHS Policy section [IV.B.3.](#) states that the IACUC shall prepare reports that contain a description of the nature and extent of the institution's adherence to the *Guide* and the Policy and must identify specifically any departures from the provisions of the *Guide*. The IACUC must state the reasons for each departure.

Slide 4 (Terms Used in the Webinar)

Because there are a number of commonly used terms that have very similar meanings and appear in the PHS Policy and in the Animal Welfare Act Regulations, we have developed this table to minimize confusion during our discussion. I will use these terms with the specialized meanings shown here throughout the webinar.

- The term deviation will apply to divergent behavior from the *Guide* that may or may not be a departure.
- A departure is a variation from the standards of the *Guide* that must be reported in the semiannual report to the Institutional Official.
- A deficiency may be significant or minor. PHS Policy section [IV.B.3.](#) defines a significant deficiency as a deficiency that in the judgment of the IACUC and the Institutional Official is or may be a threat to the health or safety of the animals. A minor deficiency is one that is not significant. Deficiencies found during the semiannual program review and facility inspections are reported in the semiannual report with a specific plan and schedule for correction.
- An exception, within our discussion of the *Guide* today, is a case that does not conform to the general rule. Because today's discussion is focused on the *Guide*, we will not be discussing exceptions and exemptions as they apply to the Animal Welfare Act Regulations overseen by the U.S. Department of Agriculture; nor will we discuss departures from the Animal Welfare Act Regulations.

Slide 5 (*Guide* Emphasizes Performance)

Performance standards are emphasized in every chapter of the 2011 *Guide*. The *Guide* defines a performance standard as a standard or guideline that, while describing the desired outcome, provides flexibility in achieving that outcome. Throughout the *Guide*, you will find definitions of desired outcomes and discussion and guidance on how to achieve the outcomes. Performance standards are not prescriptive and require a more sophisticated approach than engineering standards. They empower institutions to make decisions specific to their program needs. OLAW presented a webinar on Performance Standards in April 2012. If you have not viewed it, I encourage you to. [See [Education Resources](#)]

Slide 6 (Guide Notice NOT-OD-12-148)

On September 10, 2012, OLAW issued Guide Notice [NOT-OD-12-148](#) in the NIH Guide for Grants and Contracts. This Notice provides guidance on how IACUCs should consider the Eighth Edition of the *Guide* when preparing the semiannual report and identifying departures. We issued this Notice in response to a growing number of questions from IACUCs on what OLAW expects to be included in the semiannual report. During our own internal review of the *Guide*, we found a number of examples where the *Guide* acknowledges exceptions in specific situations. OLAW does not consider these exceptions departures from the *Guide* and these exceptions are not to be reported in the semiannual report. The Notice also provides guidance on how OLAW considers the standards in the *Guide* based on the terms “must”, “should” and “may”.

Slide 7 (OLAW on *Guide* Must, Should, May)

OLAW defines a “must” statement as a minimum standard required of all Assured institutions. “Should” statements in the *Guide* often involve [performance standards](#). OLAW does not consider well-established performance standards as departures from the *Guide*. An institution may elect to follow a different course of action than a “should” statement in the *Guide* if that action results in an equivalent outcome and is reviewed and approved by the IACUC. Institutions are not required to comply with “should” statements that do not apply to their program. The OLAW [Semiannual Program Review and Facility Inspection Checklist](#), available on the OLAW website, lists the “musts” and “shoulds” that IACUCs are to evaluate as part of the semiannual program review and facility inspections. Use of the checklist is not required, it is provided for the convenience of Assured institutions. “May” statements in the *Guide* are suggestions that institutions can choose to implement if suitable for their program.

Slide 8 (New OLAW FAQ C7)

In parallel with the release of the Notice in the NIH Guide for Grants and Contracts, we also posted a new FAQ on our website. It is [FAQ C7](#) in the section on Institutional Reporting to OLAW. As you can see, if you compare the two guidance documents, the FAQ is similar to the Notice in that it explains the PHS Policy requirement that the IACUC must review and approve departures. The FAQ states that IACUC-approved departures must be based on scientific, veterinary medical, or animal welfare issues and that the departures must be identified in the semiannual report to the IO. In addition to FAQ C7, OLAW has developed a webpage [[Departures from the Guide](#)] with additional guidance about deviations and when they are departures. This page contains examples, scenarios, and a condensed table for easy reference.

Slide 9 (Deviations from the *Guide*)

This slide depicts an outline of the types of deviations covered in the [C7] FAQ and on the webpage. There are three main types of deviations. There are those deviations that are specifically described as exceptions in the *Guide*, those based on a “must” statement, and those based on a “should” statement. In our earlier webinar, there were four types of should statements. Now you see three because IACUC-approved scientific justifications

and IACUC-approved veterinary medical or animal welfare reasons have been condensed into a single category. Most important though, the take home message from this slide remains the same. Not all deviations are departures that must be reported in the semiannual report to the IO. I will now present each of these deviations in detail with scenarios as examples of each type. You may find it helpful to refer to the webpage as I discuss each deviation.

Slide 10 (Specifically Described Exception)

The first type of deviation I would like to discuss is when there is a specifically described exception to a standard already identified in the *Guide*. This is where it is very important to read the *Guide* carefully. If your institution is conducting an activity according to a *Guide*-recognized exception, then it is not a departure from the *Guide* and it is not required to be reported to the Institutional Official. It is also not reportable to OLAW. Incidentally, we are compiling a list of specifically described exceptions found in the *Guide*. Although the list is not ready yet, it will be posted on our website, on our departures and deviations page, when complete.

Slide 11 (Specifically Described Exception – Scenario 1)

Here is a scenario to illustrate this type of deviation – a specifically described exception in the *Guide*. In an animal study protocol, the Principal Investigator requests single housing for her mice so that she can measure individual fluid consumption. After considering the specific details of the proposed experiment, the IACUC approves the protocol.

Slide 12 (Specifically Described Exception – Scenario 1)

If you read the *Guide* on page 51, you will find that it describes two specific exceptions for housing social species: Social animals should be housed in stable pairs or groups of compatible individuals unless they must be housed alone for experimental reasons or because of social incompatibility. In this scenario, the deviation from the *Guide* is based on a specifically established exception. Experimental reasons have been given for singly housing the mice and the IACUC has approved the reasons. It is not a departure because it is already recognized as an exception provided in the *Guide*. It does not need to be reported to the IO in the semiannual report.

Slide 13 (Specifically Described Exception – Scenario 2)

Here is another scenario that provides an example of a specifically described exception in the *Guide*: Prior to implementing the Eighth Edition of the *Guide*, an institution had singly housed all rabbits. After trial attempts at social housing, the veterinarian determines that a current group of older male rabbits cannot be successfully socially housed. The facility manager and veterinarian prepare a standard operating procedure [SOP], describing appropriate social housing of newly acquired rabbits, which includes pairing of sibling does or neutered bucks. The IACUC approves an institution-wide standard operating procedure for social housing rabbits.

Slide 14 (Specifically Described Exception – Scenario 2)

If you again go back to the *Guide* on page 51, the second of the two specific exceptions for housing social species applies to this scenario, “Social animals should be housed in stable pairs or groups of compatible individuals unless they must be housed alone for experimental reasons or because of social incompatibility.” The institution fulfilled the intent of the *Guide* “should” statement regarding social housing by developing an SOP to socially house newly received rabbits. Singly housing the older bucks is a deviation from a “should” statement, according to a specifically established exception stated in the *Guide*: that of social incompatibility. It is not a departure because it is already a recognized exception provided in the *Guide*. It need not be reported to the IO in the semiannual report.

Slide 15 (Specifically Described Exception – Scenario 3)

Here is a third scenario that illustrates a specifically described exception listed in the *Guide*. The institution has previously housed all dogs in pairs. The veterinarian determines that one older dog can no longer be socially housed because of arthritis that requires specialized care and padded flooring. The vet informs the IACUC of the circumstances for singly housing the dog based on veterinary-related concerns.

Slide 16 (Specifically Described Exception – Scenario 3)

On page 51, the *Guide* listed experimental reasons and social incompatibility as exceptional situations and stated that in these exceptional situations, social animals should be housed individually. Remember earlier in this webinar, I cautioned you to read the *Guide* carefully? In our original webinar, I based my guidance to you on this passage from page 51 of the *Guide*. Several alert participants questioned this guidance during the webinar and several wrote to us afterward and cited page 64 of the *Guide*. Page 64 says, “Single housing of social species should be the exception and justified based on experimental requirements or veterinary-related concerns about animal well-being.” Therefore based on this passage on page 64, and on the careful reading of the *Guide* by those alert participants, the situation described in this scenario is not a departure from the *Guide* because it is a recognized exception, that is, single housing for veterinary reasons. It is not reported to the IO in the semiannual report. We have moved this scenario to the correct category in this revised webinar and in our guidance on our webpage.

Slide 17 (Deviating From a Must)

Now let us move on to deviations from a “must” statement in the *Guide*. OLAW considers “must” statements in the *Guide* minimum standards required of all Assured institutions. But there may be a scientific reason where an IACUC approves a deviation from a “must” in the *Guide*. The PHS Policy section [IV.C.1](#) allows for this when it states: “the IACUC shall confirm... that the research project is consistent with the *Guide* unless acceptable justification for a departure is presented.” An IACUC-approved departure must be reported in the semiannual report. It is not reportable to OLAW.

Slide 18 (Deviating From a Must – Scenario B.1.)

Here is a scenario to illustrate this deviation that is an IACUC-approved departure from the *Guide*. A Principal Investigator proposes to confine dogs for three days post-surgery in small cages to limit the dogs' ability to stand. The dogs will be observed hourly by a veterinary technician who will remove each dog from the cage no less frequently than every four hours for stretching and supervised walking. The IACUC reviews and approves the protocol.

Slide 19 (Deviating From a Must – Scenario B.1.)

On page 56 the *Guide* states, "At a minimum, animals must have enough space to express their natural postures..." This example is a deviation from a "must" statement of the *Guide* that has been scientifically justified by the PI and reviewed and approved by the IACUC. As mentioned earlier, it is a departure from the *Guide* and must be reported in the semiannual report to the Institutional Official.

Slide 20 (Deviating From a Must)

What happens if there is a deviation from a "must" in the *Guide* without IACUC approval? Well, according to PHS Policy section [IV.F.3.](#), this is a noncompliance and reportable to OLAW through the Institutional Official. The IACUC must develop a plan and schedule to correct this unapproved deviation from a "must" statement in the *Guide*.

Slide 21 (Deviating From a Must – Scenario B.2.)

Here is a scenario to illustrate this type of deviation: The IACUC learns that one of the satellite facilities has inadvertently been omitted from the disaster plan. It could be that the IACUC discovered this fact during its semiannual program review and facilities inspection, or perhaps it was reported to the facility manager or identified by the attending veterinarian.

Slide 22 (Deviating From a Must – Scenario B.2.)

On page 35 of the *Guide* it states "Facilities must therefore have a disaster plan." This is a serious deviation from the provisions of the *Guide* and must be reported promptly by the IACUC through the Institutional Official to OLAW. The IACUC must develop a plan and schedule to correct this noncompliance. If this deviation was found during the semiannual facilities inspection, it is also a deficiency that must be described in the semiannual report, along with the plan and schedule for correction.

Slide 23 (Deviating From a Should)

Now we will move on to deviations from "should" statements in the *Guide*. "Should" statements often involve performance standards. OLAW does not consider well-established performance standards as departures from the *Guide*. Deviations based on locally established performance standards are not reported in the semiannual report to the IO and are also not reported to OLAW.

Slide 24 (What's a Performance Standard?)

The *Guide* has a definition of a performance standard and OLAW has given an expanded explanation of what we consider a well-established performance standard in our [Position Statements](#) on the *Guide* and also in our two webinars on the Adoption of the *Guide* and on Performance Standards. See our [Education Resources](#) to view these. If you have not viewed this guidance, I encourage you to. The basic information is provided here as a reminder. Applying performance standards requires that we define the objectives, determine how the objectives will be achieved, and determine how success will be measured and recognized at the local level. Just saying we have “always done it this way” does not meet the *Guide's* intention which on page 6 states, “It is essential that the desired outcomes and/or goals be clearly defined and appropriate performance measures regularly monitored in order to verify the success of the process.”

Slide 25 (Deviating From a Should – Scenario C.1.)

Here is a scenario that illustrates deviation from a “should” statement based on a locally established performance standard. These examples are for illustration purposes and may not be applicable or appropriate, depending upon the specific circumstances at your institution. This is where professional judgment by those managing the animal program, the researcher, and the IACUC are necessary. The PI proposes to trio breed transgenic and inbred mice in solid bottom cages with 71 square inches of floor space according to a standard operating procedure developed by the animal facility personnel. The strains proposed are difficult to breed and generate small numbers of pups. The SOP addresses parameters of well-being and requires prompt weaning and separation of animals to avoid overcrowding. The SOP is based on local performance measures including growth rate, cage dimensions, and husbandry practices. The SOP has been reviewed and approved by the IACUC.

Slide 26 (Deviating From a Should – Scenario C.1.)

On pages 56 and 57 of the *Guide*, there is an extensive discussion of space recommendations, including a table recommending the floor area of 51 square inches for a female mouse plus litter. The table includes a comment that “Other breeding configurations may require more space and will depend on considerations such as number of adults and litters, and size and age of litters.” So a trio breeding configuration in this example is a deviation in that it does not fit into any of the minimum space recommendations for mice in the *Guide*, but the institution has developed and established a performance standard with performance measures in a standard operating procedure that the IACUC has reviewed and approved. It is not a departure from the *Guide* and is not reported in the semiannual report to the IO.

Slide 27 (Deviating From a Should)

The next deviation from a *Guide* “should” statement is when the IACUC has approved a deviation based on a scientific justification or for a veterinary or animal welfare issue. This would be considered an approved departure and must be included in the semiannual report to the IO. It is not reportable to OLAW. The PHS Policy section [IV.C.1.](#) requires

that, “the IACUC shall confirm... that the research project is consistent with the *Guide* unless acceptable justification for a departure is presented.” The OLAW [Position Statements](#) on the *Guide* allow for IACUC-approval of departures based on scientific, veterinary, or animal welfare issues.

Slide 28 (Deviating From a Should – Scenario C.2.)

The example again I am presenting is for illustration purposes and may not be applicable, depending on your local IACUC policies and specific circumstances at your institution. In practice, your IACUC would discuss and review the scientific merit of a study and the scientific justification provided by the PI before reaching a determination about approving a departure from a “should” statement in the *Guide*. Here is the example. In describing a food-restricted animal study, the PI stated that animals have to be anesthetized before weighing and cited data demonstrating the adverse effect of anesthesia on the animal's performance of behavioral tests required in the proposed study. He cited other parameters of animal well-being that the research team will monitor and requested permission to weigh the animals monthly rather than weekly. The IACUC reviewed and approved the request.

Slide 29 (Deviating From a Should – Scenario C.2.)

On page 31 of the *Guide* it states, “Body weights should be recorded at least weekly and more often for animals requiring greater restrictions.” This is a deviation from a “should” statement based on a scientific justification that has been reviewed and approved by the IACUC. As mentioned earlier, it is a departure from the *Guide* and must be reported in the semiannual report to the Institutional Official.

Slide 30 (Deviating From a Should)

The last deviation from a “should” statement occurs without IACUC approval. Guidance on this type of deviation is found in PHS Policy section [IV.F.3.](#) and in the OLAW Notice on Prompt Reporting. [[NOT-OD-05-034](#)] When conditions jeopardize the health or well-being of animals because a standard involving a “should” statement is not followed, it is reportable to OLAW through the Institutional Official. The IACUC must develop a plan and schedule to correct this unapproved deviation from a “should” statement in the *Guide*.

Slide 31 (Deviating From a Should – Scenario C.3.)

Here is a scenario to illustrate this type of deviation. The PI's approved protocol includes having the research team sanitize solid bottom rodent cages in a satellite facility. The PI goes on sabbatical and the research team decides that sanitation every three weeks is sufficient. A post-approval monitor discovers the discrepancy and informs the IACUC.

Slide 32 (Deviating From a Should – Scenario C.3.)

Page 70 of the *Guide* states, “In general, enclosures and accessories... should be sanitized at least once every 2 weeks. Solid-bottom caging... usually require[s] sanitation at least once a week.” Clearly there has been a deviation that jeopardized the health or well-being of the animals. This is a serious deviation from the provisions of the *Guide* and must be

reported promptly by the IACUC through the Institutional Official to OLAW. The IACUC must develop a plan and schedule to correct this noncompliance.

Slide 33 (Summary on Deviations)

I again show this slide outlining the types of deviations that we have just discussed. In summary, there are three main types of deviations. There are those deviations that are specifically described as exceptions in the *Guide*, those based on a “must” statement, and those based on a “should” statement. Only IACUC-approved departures for scientific, veterinary, or animal welfare issues must be reported in the semiannual report to the IO. Of course there are also deviations that are unapproved departures. Those are noncompliant and must be reported to OLAW through the IO.

Slide 34 (Reporting Departures)

How does OLAW expect IACUCs to report and track approved departures? The first time the IACUC approves a departure for scientific, veterinary, or animal welfare issues, it must be reported in the next semiannual report to the IO. A record of the departure must be maintained for as long as the departure is active and approved. The IACUC may determine how best to maintain and update records of approved departures. This may involve electronic records, such as a spreadsheet, database, or another recordkeeping method. PHS Policy [IV.B.3](#) requires that the departures record is updated at a minimum of every six months.

>> *Ms. Silk*: Dr. Brown has covered a large amount of material on the topic of departures. Now we will move on to questions. We received some of these questions before the original webinar on September 13, 2012. Some we received in real time during the webinar and some in the days following the webinar. In this revised webinar, being recorded on October 4, 2012, Dr. Brown, Dr. Collins, and I will address all of these issues.

Slide 35 (Question 1)

>> *Ms. Silk*: Question 1: Does the IACUC have the authority to approve a departure from any provision of the *Guide*?

>> *Dr. Brown*: Yes. The IACUC is authorized to approve a departure, as long as the approval is based on a scientific justification that the IACUC finds satisfactory, or for veterinary medical, or animal welfare issues.

Slide 36 (Question 2)

>> *Ms. Silk*: Question 2: Is a departure protocol-specific or program-specific?

>> *Dr. Brown*: As illustrated in the scenarios, an approved departure may be protocol-specific or may apply to a part of an animal program or the entire animal program.

Slide 37 (Question 3)

>> *Ms. Silk*: Question 3: If a departure is approved by the IACUC at a prime grantee institution, but the work is being performed at a collaborating institution or performance site, does the prime grantee's approved departure apply to the work at the performance site? Or is the IACUC at the performance site also required to approve the departure from the *Guide*?

>> *Dr. Brown*: The IACUC at the performance site that conducts the review and approval of the protocol must approve the departure and include that departure in the semiannual report to their Institutional Official. We have more detailed guidance on responsibilities of collaborating institutions in OLAW [FAQ D8](#). This is also discussed in the *Guide* on page 15.

Slide 38 (Question 4)

>> *Ms. Silk*: Question 4: How should the IACUC respond to an investigator who says, "We've been doing it that way for 10 years and the animals have never experienced welfare issues, so it's a well-established performance standard."

>> *Dr. Brown*: To meet the *Guide's* definition of a performance standard, the desired outcomes or goals of the standard are clearly defined and appropriate performance measures that are regularly monitored are in place in order to verify the success of the process. Some examples of performance measures that are found in the *Guide* concerning space for animals are health, reproduction, growth, behavior, activity, and use of space. If the investigator can demonstrate the outcome and the measures, then it would be an established performance standard. Some of you are now asking yourselves, "Well, how should we do this?" Please look in the *Guide* for the performance measures and determine the best way the standards can be measured and evaluated within the context of your program.

Slide 39 (Question 5)

>> *Ms. Silk*: Question 5: Will the IACUC's ongoing reconsideration of approved departures really make a difference in the welfare of the animals?

>> *Dr. Brown*: By reviewing and reconsidering approved departures, the IACUC has the opportunity to recommend refinements to the investigator, such as improved methods or techniques based on advances in science. This will benefit the animals and the research.

Slide 40 (Question 6)

>> *Ms. Silk*: Question 6: Will these changes in the *Guide* increase the workload of IACUC members and staff?

>> *Dr. Brown*: Well, although there are more "shoulds" in the *Guide*, many of them involve performance standards and – as we've said before – are not departures and are not required to be reported. Some of the engineering standards in the 1996 *Guide* have been replaced by performance standards. The *Guide* also describes many specific

exceptions and these also do not have to be reported. I would like to share an example of an established performance standard that was recently shared with OLAW. It involved co-housing mice and nude rats in the same room. The species are housed in separate ventilated housing units and each is directly exhausted to the outside. There have been no problems with breeding of mice or with health issues of the nude rats. The animals are from the same vendor and have identical health profiles. The barrier facility where the animals are housed is free of known rodent pathogens and conducts routine health monitoring. As I have just described, many performance measures are in place to demonstrate that the outcome of co-housing the two species is successful and appropriate for this facility. So this would be an example of a performance standard that's well-established at the program and is not a departure from the *Guide*.

Slide 41 (Question 7)

>> *Ms. Silk*: Question 7: Is there an expectation that the institution maintain a list of "shoulds" based on locally established performance standards?

>> *Dr. Brown*: Well, as part of the semiannual program review, the IACUC is expected to use the *Guide* as the basis for its evaluation of the institution's program of animal care and use. This includes the "shoulds" that are based on locally established performance standards. The OLAW Checklist provides a ready resource to assist in this review.

Slide 42 (Question 8)

>> *Ms. Silk*: Question 8: Does the IACUC need to review and approve performance standards since they are not considered departures from the *Guide*?

>> *Dr. Brown*: During the semiannual program review and as part of the review of standard operating procedures or program-wide policies, the IACUC would be reviewing performance standards including the performance measures that indicate the ongoing effectiveness of the standards or where changes may be needed.

Slide 43 (Question 9)

>> *Ms. Silk*: Question 9: What if an IACUC discovers during program review that it has not been reporting departures that should have been reported?

>> *Dr. Brown*: Well, this would be a minor deficiency, unless the health or well-being of animals was impacted. It would be reported in the semiannual report and would require a plan and schedule for correction. It would not be reportable to OLAW, unless the health and well-being of animals was impacted.

Slide 44 (Question 10)

>> *Ms. Silk*: Question 10: What should institutions do if previously approved departures are no longer identified as departures in the Eighth Edition of the *Guide*?

>> *Dr. Brown:* Well, if a departure is no longer identified in the *Guide*, then it can be dropped from the record of approved departures and no longer tracked.

Slide 45 (Question 11)

>> *Ms. Silk:* Question 11: Is feeding animals on the floor, if outlined in the protocol, considered a departure from the *Guide*? That used to be in the old *Guide*, or at least we all thought it was.

>> *Dr. Brown:* Well, it's my understanding that this is not referenced in the new *Guide*, so it would no longer be considered a departure. Page 67 of the *Guide* even states, "Scattering the food in the bedding... gives the animals the opportunity to forage..." Many institutions, I know in the past, had considered floor feeding as a departure and required either an IACUC-approved operating procedure or a policy by the institution. But from our current review of the new *Guide*, it no longer seems to be an issue that would require institutions to consider it a departure.

Slide 46 (Question 12)

>> *Ms. Silk:* Question 12: "Because a high standard of personal cleanliness is essential, changing, washing, and showering facilities and supplies appropriate to the Program should be available." That is a quote from the *Guide* on page 19. And here's the question: An institution has a rodent facility. Individuals must cover their clothes with gowns, wear face masks, hair bonnets and shoe covers when entering the facility. Prior to leaving the facility, all of these garments are discarded. While there are washrooms and locker rooms, there are no showers. The IACUC has approved these entry procedures described in an SOP. Is this an IACUC-approved departure from a "should" statement that must be reported in the semiannual report every six months to the IO? How would we measure for equivalent outcomes between showering out of the facility and the provision and removal of protective outerwear?

>> *Dr. Brown:* This goes back to performance standards. We would want the institution to base its decision making on what's appropriate for their program. In the same paragraph on page 19 in the *Guide* it states, "The facilities required to support the [occupational health and safety program] will vary depending on the scope and activities of the Program." If the performance outcome is protection of staff and animals from pathogens and the institution has found equivalent, effective measures using a performance standard, then the institution has met the requirement for the "should" and it would not be a departure from the *Guide*.

Slide 47 (Question 13)

>> *Ms. Silk:* Question 13: Here's one about trio breeding. Specific for the deviation from "should" with regard to trio breeding, if the PI conducts the breeding and it is not done by a central facility, does each PI have to have a separate SOP for this deviation using performance standards?

>> *Dr. Brown:* This would depend on the circumstances and if there's differences in housing arrangements, husbandry, and weaning practices at the locations where the animals are housed. Oftentimes, if it's different satellite facilities, there may be different conditions and a need to have separate SOPs. But if it's being done under similar conditions, then perhaps a more program-wide SOP would be appropriate. This is where it's up to the institution to evaluate its own local circumstances and make a determination on what's best for their program.

>> *Dr. Collins:* If I could just follow up with a general comment. In listening to these three questions, I think is really important for the participants to recognize the underlying message that Pat is providing. Performance-based standards give each institution the opportunity, the responsibility, and the authority to know their institution well and to apply the best skill set they can in order to make sure the animals are well cared for and the humans are also well cared for. It really is an issue of each individual IACUC assuming that responsibility and working with the faculty and staff at their organization to guarantee that the very best is being done for animals and humans.

Slide 48 (Question 14)

>> *Ms. Silk:* Absolutely. Let's move on. During the September 13th, webinar we received a question about single housing social species for veterinary reasons.

>> *Dr. Brown:* In today's webinar, I am going to revise – that means correct – my guidance. Single housing of a social species for a veterinary medical or animal welfare issue is a defined exception in the *Guide* and is therefore not a departure and does not need to be reported to OLAW.

>> *Ms. Silk:* Pat, are you concerned that OLAW is changing its guidance on this issue?

>> *Dr. Brown:* Well, I am really pleased that our alert community pointed out our error. What is always most important is the welfare of the animals in our care. I do think this situation points out what I have said many times before. The new *Guide* is a complex and nuanced document. It has many exceptions and guidance about issues are described in various locations throughout the document. So, I'll just say that we at OLAW, like the rest of the community, are still learning this new document and everyone should read it very carefully.

Slide 49 (Question 15)

>> *Ms. Silk:* Question 15: Is it appropriate to adopt the 1996 *Guide* standards rather than the 2011 *Guide*? For example, the 2011 *Guide* states, food should be stored at less than 70 degrees Fahrenheit and less than 50% humidity. If an institution is not able to meet the less than 50% humidity at all times of the year, is it appropriate to state that we will continue to use the 1996 *Guide* recommendations for food storage?

>> *Dr. Brown:* NIH has adopted the 2011 *Guide*, so Assured institutions must phase in the new *Guide* with plans and schedules in place by December 31st, 2012 to meet the requirements of the 2011 *Guide*. That does not mean that an institution could not create an appropriate performance standard that may address the circumstance just described or a recognized departure that is reviewed and approved by the IACUC that's based on either a scientific justification or a veterinary medical or animal welfare issue.

Slide 50 (Question 16)

>> *Ms. Silk:* Question 16: Is it the expectation of OLAW that performance standards be formally defined, provide justification, and then be reviewed and approved by the IACUC?

>> *Dr. Brown:* As I mentioned before, performance standards are usually part and parcel of either a standard operating procedure or a policy at the institution and within that framework is how they would be reviewed and approved. It's going back to this idea of reviewing your program based on what's in the *Guide*. And if you have an established performance standard and you already have performance measures in place, you're just acknowledging that as part of your normal program review and facility inspections. If a new performance standard is being created then the rationale for implementing the new standard along with the performance measures and supporting data that support the standard should be reviewed and approved by the IACUC.

Slide 51 (Question 17)

>> *Ms. Silk:* Question 17: For experimental animals, on arrival, animals may be singly housed for a few days until allocation to the study by body weight occurs. The animals are socially housed when they are on study. Is this considered a departure?

>> *Dr. Brown:* No. This is actually described in the *Guide* in the section on acclimation and quarantine, so it would be a recognized exception and not a departure from the *Guide*.

>> *Ms. Silk:* So that gives us one more opportunity to say what we've said before, you have to read the *Guide* very carefully.

Slide 52 (Question 18)

>> *Ms. Silk:* Question 18: If the departure is described in an approved protocol, does that meet record keeping requirements?

>> *Dr. Brown:* If an approved departure is for scientific reasons and the IACUC has approved it, it needs to be included in the semiannual report to the Institutional Official after it's been approved. We allow institutions to develop methods of maintaining records of those approved departures, not necessarily including a list every six months. Important in this record keeping is that the IO has access to records of approved departures, including the reasons for those departures. There would have to be more documentation than just what is written in an approved protocol; there would have to be a way that the

IO can access the information. That's the requirement in the PHS Policy that we've stated several times throughout this presentation.

Slide 53 (Question 19)

>> *Ms. Silk*: Question 19: This is a follow up to the previous question. Would you clarify what you mean by maintenance of a departures list as a spreadsheet every six months? Is it OK to add departures as the protocols are approved and then refer to this list in the semiannual report to the IO?

>> *Dr. Brown*: The PHS Policy requires that you report IACUC-approved departures to the IO in the semiannual report. IACUCs are free to develop a process to comply with that requirement. Therefore, you are not required to maintain a departures list as a spreadsheet, but you may fulfill the requirement that way. You would be in compliance with the Policy if you chose to update the list as protocols containing departures are approved and report the list to the IO every six months, as you describe in your question.

Slide 54 (Question 20)

>> *Ms. Silk*: Question 20: If we collect data and use it to develop a performance standard and the IACUC approves the performance standard, do we need to continue collecting data on an ongoing basis for subsequent review by the IACUC?

>> *Dr. Brown*: Yes, as mentioned previously, during the semiannual program review and as part of the review of standard operating procedures or program-wide policies, the IACUC is reviewing established performance standards including the performance measures that indicate the ongoing effectiveness of the standards or identifying where changes in the standards need to be made. That's what performance measures are all about.

Slide 55 (Question 21)

>> *Ms. Silk*: Question 21: How frequently does the IACUC need to reconsider ongoing departures? Every six months? Annually? Every three years?

>> *Dr. Brown*: The PHS Policy does not offer any specific requirement for reconsideration of departures. But as part of ongoing review of a scientific justification or veterinary medical or animal welfare reason for a departure, at a minimum the reason for the departure should be reviewed every three years.

>> *Dr. Collins*: Pat, am I correct in saying that there is absolutely no requirement that once a departure has been approved, it be re-reviewed every six months by the IACUC?

>> *Dr. Brown*: Correct. We would say it would be based on the individual departure. If it was a departure that had a temporal nature to it, it may actually need to be looked at more frequently than a departure based on a long-standing scientific justification. There is

always the opportunity for consideration of refinements to approved departures as part of program review by the IACUC.

>> *Dr. Collins*: If we pause for a moment to consider these last three questions, it strikes me that the individuals asking them are still not comfortable with the idea of assuming both the authority and the responsibility associated with performance based standards. So I would encourage them to think about that. To think about the opportunities that the performance based standards provide them to make sure that things being done at their institution are being done in the very best interest of the animals [unintelligible].

>> *Ms. Silk*: Well said, Jerry. OLAW agrees with that.

Slide 56 (Question 22)

>> *Ms. Silk*: Question 22: Are excursions outside prescribed temperature and humidity levels considered departures from the *Guide*?

>> *Dr. Brown*: Well, this would depend on the extent of the variation, how long the variation lasted, and if it had an impact on the animals. The *Guide* has an extensive discussion on temperature and humidity on pages 43 through 45 including the consideration of resources to allow animals to control their microenvironment behaviorally.

>> *Dr. Collins*: I think it's important for the individuals asking this question to remember that there may be some deviation because of an HVAC system in an older building, but if an institution has other measures in place to assure that things like a change in temperature or a change in humidity are not having a negative impact on the animals, then those performance based standards may obviate the need for the deviation to be considered a departure. Once again, a thoughtful consideration by the IACUC at its own institution, with full knowledge of its institution, is the answer.

Slide 57 (Question 23)

>> *Ms. Silk*: Question 23: I thought that OLAW did not require dual review. You stated that the performance site IACUC has to approve a departure approved by the grant recipient IACUC. Does that mean that OLAW expects both IACUCs to review and approve the departure or at least a review and approval by the performance site IACUC?

>> *Dr. Brown*: This does not have to do with dual review. This has to do with where the activity is going to occur. If the activity is going to occur at the performance site, the departure has to be approved by the IACUC that has oversight responsibility for that activity. The IACUC at the institution that is going to be conducting the research would be the one to make the determination about whether they were going to approve a departure from the *Guide*. And as I said, the IACUC at the performance site would then be responsible for having that departure identified in their semiannual report to the IO. The performance site cannot be compelled to approve a departure unless the departure is

found satisfactory by its IACUC. If the requirement to depart from a standard in the *Guide* is handed to them by a collaborating institution, there's no requirement to approve that departure if it doesn't meet the performance site's program standards.

>> *Dr. Collins:* If I could just make a general comment, as a former IACUC Chair, I would encourage institutions to consider the fact that if there is a process happening at another institution, there is not the requirement for dual review, however, it is certainly, I think, in the best interest of the institution that is accepting another institution's review to be aware of the nature of that review and make sure that, in fact, what has been approved by that other organization is in keeping with the standards of the other organization. Excuse me, of the organization that is accepting the other review from somewhere else.

Slide 58 (Question 24)

>> *Ms. Silk:* Question 24: We are currently testing ammonia levels in our cages to see if we can change cages every two weeks. After we develop a performance standard based on these metrics and it is reviewed and approved by the IACUC, do we need to report this to OLAW? If yes, do we continue to test and report this as we continue from year to year?

>> *Dr. Brown:* As has been mentioned repeatedly throughout this presentation, OLAW does not need any of your reports concerning performance standards within your facilities. Performance standards in a standard operating procedure or program wide policy, once developed by the facility and approved by the IACUC, are not departures from the *Guide*, do not need to be reported in your semiannual report, and do not need to be reported to OLAW. Ongoing monitoring of an established performance standard using performance measures is part of having a performance based standard.

>> *Dr. Collins:* And I'd like to reemphasize what Pat just said. There's really a lot of wisdom if an institution has made some changes based on sampling for them to revisit that sampling at time periods that they consider most appropriate in order to make sure that possible changes like changes in bedding or changes in airflow or various other factors have not altered their assessment and that in fact their current performance standard still is appropriate for their institution.

>> *Dr. Brown:* I would agree with Jerry, the frequency of sampling should be based on the professional judgment of those at the institution responsible for the SOP or policy that includes that performance standard.

Slide 59 (Question 25)

>> *Ms. Silk:* Question 25: If a departure is described in a non-PHS-funded study, should it be reported?

>> *Dr. Brown:* It is not clear if the question is asking if a departure should be reported in the semiannual report or if it should be reported to OLAW. We're going to answer it both ways. As we said before, the PHS Policy requires that a departure from the *Guide* that's

approved by the IACUC be reported in the semiannual report. Approved departures are not reported to OLAW. The Animal Welfare Act Regulations also require departures from the regulations to be reported in the semiannual report, but that has not been the focus of our discussion today. For uniformity and consistency across the IACUC's oversight of an animal care and use program OLAW would consider it best if the institution keeps track of all approved departures from the *Guide* rather than just picking out ones that have to do with a PHS-funded study.

Slide 60 (Question 26)

>> *Ms. Silk*: Question 26: We understand the need for the IACUC to include a veterinary prescribed departure but do not understand this statement that the IACUC needs to review and approve the departure. This statement implies that the IACUC could not approve the departure and thus override the veterinary decision. Please clarify.

>> *Dr. Brown*: The veterinarian has the authority and the responsibility to provide care for animals as needed without IACUC review or approval. However, if the veterinarian identifies a departure from a must or should statement in the *Guide* based on an ongoing veterinary medical or animal welfare issue where a standard operating procedure or program policy is necessary, that departure must be reviewed and approved by the IACUC. IACUC-approved departures must be reported to the IO in the next semiannual report and do not need to be reported to OLAW. An example I'd like to provide involves the use of aromas disbursed in animal rooms as part of an enrichment program developed by the veterinarian. On page 70 of the *Guide*, it discourages the use of agents that mask odors in animal facilities. This departure would be for an animal welfare issue and was reviewed and approved by the IACUC and reported in the semiannual report.

Slide 61 (Question 27)

>> *Ms. Silk*: Question 27: Does the IACUC have to approve a departure from the *Guide* that is driven by veterinary medical need and the requirement that this needs to be reported? The USDA does not require exemptions from the AWA/AWR if the exemptions are driven by veterinary care needs that are not due to the potential side-effects of the research.

>> *Dr. Brown*: This is very similar to the earlier question and has the same answer. As I said before, the veterinarian has the authority and the responsibility to provide care for animals as needed without IACUC review or approval. But if the veterinarian identifies a departure from a must or should statement in the *Guide* based on an ongoing veterinary medical or animal welfare issue where a standard operating procedure or program policy is necessary, that departure must be reviewed and approved by the IACUC. Exemptions from the Animal Welfare Act Regulations are not based on the *Guide* and are not part of this discussion today.

>> *Dr. Collins*: Pat, if I might just make a comment – I'm guessing that some of these questions are being driven by the concerns individuals may have that emergency

decisions made by veterinarians that are in the best interests of animals somehow need to be reviewed and approved by the IACUC prior to that and clearly that is not the case.

>> *Dr. Brown:* That's correct, Jerry.

>> *Ms. Silk:* Good, thanks for pointing that out and singling that out.

Slide 62 (Question 28)

>> *Ms. Silk:* Question 28: Our rabbit care SOP says "single housing" which is a deviation based off a *Guide* approved exception for "experimental reasons". Does this exception need to be made into a policy or can the IACUC just review and approve the current SOP?

>> *Dr. Brown:* Well, the intent of this question is not clear, so I am going to interpret what I think they are asking and then answer my version of the question. I think the institution has an SOP that states that rabbits can be singly housed for experimental reasons. Hopefully, the SOP also addresses social housing when appropriate. The questioner wants to know if this must be made into an IACUC policy or if the IACUC should review and approve the SOP. Here's my answer: On page 51, the *Guide* says "Social animals should be housed in stable pairs or groups of compatible individuals unless they must be housed alone for experimental reasons..." This is a deviation from a "should" statement according to a specifically established exception in the *Guide*. As we've said before, exceptions are not departures from the *Guide* and do not need to be approved by the IACUC or reported to the IO or to OLAW. Incorporating this exception in the *Guide* into an SOP which the IACUC considers as part of its program review is a reasonable approach. In addition, the IACUC should be reviewing and considering each protocol where a scientific justification is provided for why the rabbits may not be socially housed. Wherever possible, the institution should be considering social housing for rabbits unless justified for the reasons the *Guide* allows (experimental, veterinary or social incompatibility).

Slide 63 (Question 29)

>> *Ms. Silk:* Question 29: What is expected for housing social species when the housing unit is not adequate for pair or group housing? E.g., rabbit cages, horse barn stalls.

>> *Dr. Brown:* The institution must develop a plan and schedule to provide social housing for social species except in cases of specifically established exceptions in the *Guide*. As just mentioned, the exceptions allowed are experimental, veterinary or social incompatibility.

Slide 64 (Question 30)

>> *Ms. Silk:* Question 30: Are facilities that house rabbits expected to purchase caging that would accommodate pair housing or are we expected to find a way to provide social contact?

>> *Dr. Brown:* The *Guide* requires social housing for social species except in cases of specifically established exceptions. Institutions have found many different ways to house rabbits socially: in cages, pens, runs or rooms that provide the opportunity for social interactions.

>> *Dr. Collins:* I think that last part of Pat's answer is really important, and it points out the essential nature of having institutions communicate with similar institutions that have similar concerns and similar problems because the reality is that throughout the country different places have developed very unique and very good ways of dealing with problems like this. And we need to be communicating with each other in order to make sure that we understand the wealth of those opportunities so that we can then decide which one of those is most appropriate for our own institution.

>> *Ms. Silk:* That's really the benefit – one of the benefits – of performance standards, isn't it Jerry? We can assimilate the collective wisdom of a lot of experienced professionals finding ways to solve these problems and sharing their best practices.

>> *Dr. Collins:* Absolutely, and it's certainly one of the values of various national and regional meetings where individuals can come together and have those after the conference discussions about these various concerns.

Slide 65 (Question 31)

>> *Ms. Silk:* Question 31: How should an institution deal with the potential conflict between the "should" statement that social animals be housed in pairs vs. the recommended space allocation for animals (e.g., rabbits)?

>> *Dr. Brown:* There is no conflict because the *Guide* allows for the performance based approach at the local level to allow flexibility in order to improve animal welfare. The *Guide's* space recommendations are reference points for addressing space needs considering each institution's program scope and complexity. Institutions have found many different ways to house rabbits socially, as I just said: in cages, pens, runs or rooms that provide the opportunity for social interactions and also meet the minimum recommended space in the *Guide*.

>> *Ms. Silk:* I think our readers [listeners] should consider that the *Guide* is a new document and you have to kind of bring a new mindset when you read it. I understand this. I, too, find it hard to let go of those rules that we learned and we worked hard to follow that guidance in the older *Guide*. And so now we really have to bring an open mind to the guidance that's in the new *Guide*.

Slide 66 (Question 32)

>> *Ms. Silk:* Question 32: A pharmaceutical-grade alternative to a drug being administered to mice is available. However, it is only available from a foreign company and is of unknown quality. Indeed, of suspect quality. The PI has been using the non-

pharmaceutical-grade version of the drug of reliable origin for several years. Can the IACUC approve this deviation from a must and how is it reported?

>> *Dr. Brown:* Well, it's not really a "must" in the *Guide*. The *Guide* says, on page 31, "...the use of a non-pharmaceutical-grade chemical or substance may be necessary to meet the scientific goals of a project..." So, yes, the IACUC can approve a scientific justification to use the non-pharmaceutical version of the drug. Use of a non-pharmaceutical-grade version of a drug with scientific justification is an already acknowledged exception in the *Guide*. These exceptions are not departures from the *Guide* and are not to be reported in the semiannual report.

>> *Dr. Collins:* This question actually troubles me somewhat. It seems to me that the individual raising this question may have lost focus of why these various rules, regulations, and policies are in place. They're there to ensure the well-being of the animals that are being used in essential research. So clearly, if the IACUC knew that there was a potential problem, i.e., unknown quality associated with the drug, it would be their responsibility to make sure that that compound was not given to the animals.

>> *Ms. Silk:* Absolutely.

Slide 67 (Question 33)

>> *Ms. Silk:* Question 33: Do you have suggestions for getting departures practiced by PIs in the animal facility communicated to the IACUC?

>> *Dr. Brown:* If the PIs are performing departures from the *Guide* in the animal facility without the knowledge or approval of the IACUC, it would be noncompliance that must be reported to OLAW through the IO. The IACUC has the responsibility for developing a method of post-approval monitoring that ensures compliance with IACUC-approved protocols, facility operating procedures, and institutional policies to protect the health and well-being of the animals and the humans. The *Guide* on pages 33 and 34 discusses a variety of options for post-approval monitoring that this institution should consider.

Slide 68 (Question 34)

>> *Ms. Silk:* Question 34: Facilities need to implement the 2011 changes to the *Guide* by 2012. Aside from the checklist provided by OLAW, how else can we provide "proof" of the changes?

>> *Dr. Brown:* The question is incorrect in what needs to occur in 2012. Institutions must complete at least one semiannual program review and facilities inspection using the Eighth Edition of the *Guide* as the basis for evaluation in 2012. It is not required that all changes be completed in 2012. A plan and schedule must be developed by December 31, 2012. OLAW allows the institution to determine what is a reasonable plan and schedule based on the complexity and scope of the changes that may be needed. As mentioned earlier, use of the [Checklist](#) is not required; it is provided for the convenience of Assured

institutions. AAALAC accredited institutions may choose to use an updated [AAALAC program description](#) based on the 2011 *Guide* as their proof of the changes they have made to address the standards in the new *Guide*.

Slide 69 (Question 35)

>> *Ms. Silk*: Question 35: What is OLAW's position on "recommendations" that are not must or should statements in the *Guide*? Our facility cannot adjust storage room temp below 70°F. We order small amounts of feed weekly so our food does not sit in the room long. May we store feed short term in conditions outside *Guide* recommendations? And then the questioner tells us what part of the *Guide* they're referring to. (Page 66, "Storage of natural-ingredient diets at less than 21°C (70°F) and below 50% relative humidity is recommended.")

>> *Dr. Brown*: If the *Guide* says something is "recommended" than OLAW would strongly encourage its consideration by Assured institutions where applicable. The use of a performance standard would be the best approach for such recommendations and should be based on the local practices that work best at the institution. The feed storage practice described seems an appropriate approach to address the issue.

>> *Ms. Silk*: Thank you Pat and Jerry. I hope that this revised webinar has answered your questions and clarified your concerns. If you still have questions, please write to the OLAW Division of Policy and Education at olawdpe@od.nih.gov. Lori and I will have to work hard, but we're always glad to answer your questions. Goodbye, everyone.

>> *Dr. Brown* (whispers): Next slide.

>> *Ms. Silk*: Ooh. Sorry.