Okay seeing none, we will move on to question six, and that is, what level of reduction in infectivity is necessary to consider products containing bovine neurological tissues non-infective or "safe" for human use. Well this is again a very open and difficult question. I'll just invite discussion by the committee. I don't know that we are going to, well in fact I know that we are not going to come up with a number this morning, although again if the FDA would like to address this in more detail, along with the aspects of question four, a session might be devoted to that where we could bring in appropriate experts and really devote an appropriate amount of time to discussing and trying to resolve or clarify that issue. Discussion Paul?

DR. BROWN: David, I don't think this is a difficult question at all. It is whatever level of infectivity reduction is required to eliminate infectivity. I mean it asked the question as phrased, that is the only possible answer.

DR. BOLTON: Okay. Steve?

DR. DE ARMOND: I agree. It assumes that you are beginning with a BSE contaminated sample and you are working your way down, and we could get it down, we can get infectivity down 10 to the fifth, 10 to the sixth, perhaps not the last couple of bits of infection. So when is it safe for human use. I would never use anything that I knew

came from BSE. So regardless of, unless it was absolutely proven there was no infective particles left. But I wouldn't even do that. I would rather go somewhere else and take my chance on getting hit by a car in the street.

DR. BOLTON: Well I'm guessing that we are not really dealing with the possible use of known BSE infected materials as a starting source for any product.

DR. DE ARMOND: What I think it assumes is it says a reduction in infectivity, so it assumes there was an infection to begin with.

DR. BOLTON: Well let me jump forward and see, or maybe we are jumping backwards, and suggesting that what we are looking for here is along the lines of what Dean was saying in terms of process validation. If one had a process where infectivity could accidentally be introduced, what level of reduction in infectivity by demonstrated via spiking experiments or what have you, would be appropriate. And in that case, to come up with an absolute number I think is impossible. And Paul is right in saying it should be reduced to zero. But then the question is what is the maximum biologically relevant dose that might be introduced in the starting material.

DR. DE ARMOND: And of course that varies for the person. If you are mythinning mythinning, you shouldn't have it at all, and if you are mythinning veiling, perhaps

you could take 10 to the fifth reduction, or even a veiling veiling person at 129 you might be able to take 10 to the fifth. But I wouldn't trust it if I were a mythinning mythinning 129 person.

DR. BOLTON: Pedro and then Ray.

DR. PICCARDO: I think we will go back to question one, I mean is you, if there is no CNS tissue infecting, then that is the most, I mean first of all we don't want any BSE being processed. To reduce the unlikely possibility of having an animal that went through the system, through the cracks, it is the only way to assure that there is no CNS contamination into the rest, if we go back to the original question, to question number one, which is do not contaminate the meat with CNS.

DR. BOLTON: But let's entertain the possibility that there are products that are FDA regulated products that must contain some component of bovine brain. I can't think of any right off the bat, but let's say that there is one. So that is clearly not an answer for that. I mean obviously you can restrict it to sourcing brain from non-BSE countries, that would be an issue. Bruce?

DR. EWENSTEIN: I mean I am looking at this as a question that has to do with infectious dose, and I know there is the difficult issue of genetic susceptibility, so you would probably want to come up with an answer that would

protect the more susceptible members of the population, not the least susceptible, and we don't know what the cumulative effects are. So it is not just a one-hit dose, it is being exposed over a period of time. We don't know how to integrate that. But I think that is the kind of discussion, we may not want to do it today, but that's I think the kind of discussion, because of course no one is going to purposefully you know eat BSE contaminated product.

But if a vitamin pill shows up on the shelf or some broth waste product from Japan shows up on the shelf, which it may be right now in the supermarket, the question is what is the infectious dose for this disease, and if we were at a level that was below that, even as a cumulative exposure, one could feel safe. It is like mercury for example, I mean when the fish have a certain amount of mercury we can't eat them, but we know there is a certain amount of mercury in the environment.

No one goes out to eat mercury-laden food on purpose, but we know it is out there, and I think we have to assume that there is BSE derived material in our food chain right here that came from other countries or came through additives or came from, you know, came from dietary supplements or whatever. And I think the question is what can we tolerate or what is the level that our most susceptible members of the population can tolerate as a

cumulative dose. We don't know the answer, but I think that is the kind of discussion we should have.

DR. BOLTON: Ray?

DR. ROOS: Maybe a good example of a product would be bovine merrilin which, for example, was used as an experimental treatment trial orally for multiple sclerosis. It turned out that it didn't work, but this was a product that actually was bovine CNS material, and clearly in that case one is dealing with bovine material from non-BSE countries. But the question is how should that be processed, for example, and I actually don't know that. I mean clearly one would want to do I think assays on material itself to make sure that it wasn't infectious, that one did not have PRP resistant material within the product that was being administered.

But I guess the question is would one be comfortable with using that kind of CNS material in experimental treatment and trial. How should one process that material to increase and enhance its safety. And maybe to a certain extent one might have to use, change this depending on the particular product and the potential benefit of its use. We certainly would want to try to use every processing method possible in order to enhance the safety. But there may be minutes for example where that might destroy the antigenicity that might be important in

the therapeutic trial. So it is a somewhat difficult question when you get to drugs such as that one.

DR. BOLTON: Let me perhaps again stipulate the discussion again by bringing out maybe two classes of products, a product like Ray just discussed where the essential ingredient must be obtained from bovine brain for example, and then a second class of products, for example beef bullion, that might currently be being produced from bovine brain, but would not necessarily, at least as I can see, have to be produced from that.

There are two clearly different levels of risk and benefit, the product that must be obtained from bovine brain, clearly there would be no other source except perhaps brain from another mammal, whereas the other product, beef bullion, might be produced from many different sources that would be non-CNS, and I would invite comment from Dr. Brackett after I take the comment from Dr. Brown.

DR. BROWN: I think what Dr. Brackett is getting at can be illustrated in a very simple example. I think this is the kind of thing that he wants to consider. Let's consider a dietary supplement that contains, each tablet, contains one gram of brain, and that's actually on the shelf, that's available, one gram of bovine brain. If that were processed, and it is not, that is it is specially prepared so that there is no loss of goodness (laughter), if

it were processed, you would want to inactivate at least six logs of infectivity because cattle brain from BSE cattle, tighter in cattle, contains six logs of infectivity per gram.

Yes you could argue that the primate may not be quite as infective, but you wouldn't want to hide behind that. In addition to that, presumably you would want a large measure of overkill. So you might wind up saying for that preparation you would want to demonstrate 12 log reduction of infectivity. If the process did guarantee a reduction of 12 logs of infectivity, then you might consider taking such a product. But each product is going to have t be analyzed in just that way.

DR. CRAWFORD: The Joint Expert Committee on Food Additives of WHO has gone through these kinds of paragonations a number of times, and they have a useful, intellectual construct I think that I would recommend for this. They try to set average daily intakes, minimal infective doses, a variety of other acronymologies, but for something like this the only conclusion they would come up with is that no safe level can be established. And I think we need to factor that in. I mean you might still have to use the product, but persons should know that no safe level can be established for the prions.

DR. CLIVER: Even though 12 logs may sound like an

on the boom figure, that is the essence of our low acid can food regulation in the United States, there's 12 logs destruction of clostridium botulinum spores. So in some context at least, it is already in place and has been for quite a long time.

DR. BOLTON: However I think in many products the only safe approach is to exclude the possibility of contamination by regulating the source material. Dr. Brackett, you have a comment.

DR. BRACKETT: Well both Dr. Brown and Dr. Cliver pretty much stated what I was going to say, and that is the analogy of low acid canned foods, and there it is not so much that we would ever, ever expect to have 12 logs of clostridium botulinum spores in a product, but it is based on, and we have a statistician here, the statistical chance that perhaps one can out of 10 of the 12 might have gotten through with the possibility. And that is the same sort of rationale that we would be looking for here.

DR. ROOS: I just want to, I think first it is very important that the consumer be informed, and with respect to these dietary supplements, I think what is in it, especially if it is bovine central nervous system, really has to be presented to the consumer. Once I say that I wonder about the consistency of requiring 12 log decrease in infectivity of this material if the consumer could go to the

butcher and say please give me that brain over there.

In other words, we have I guess on the shelf central nervous system material that is available from the cow to the consumer. In one case it says brain and they know it is brain. In the other case it is a "dietary supplement." If we tell consumers this contains one gram of bovine brain per pill, is that the same I would ask as going to the butcher and getting that off the shelf. I mean that is really my question I guess for discussion.

DR. BOLTON: Yes, I would like to actually ask Dr. Brackett to comment on that and another issue, and that is the ability of the FDA to regulate versus recommend procedures in this area, particularly addressing the area of food supplements. My understanding is the FDA cannot require certain things to be done in the food supplement area, but they can recommend that certain things be done. Is that correct? And the other issue is proper labeling.

DR. BRACKETT: As a general rule FDA can recommend, make guidance, can do regulation, all of the above. But in particular with dietary supplements perhaps I'll have Dr. Moore talk about how that is, has been handled so far, and in general any ingredient that is in there, for instance bovine brain, is supposed to be put on the label.

DR. BOLTON: But I guess the question as at our last meeting was brought up, I believe it was the last

meeting, talking about bovine testicles being labeled as orchid, labeling is one thing, clear labeling may be something else. I guess that's a question that perhaps another person from FDA can address.

DR. MOORE: Bob Moore, and I'm in - nutritional products and labeling it. There's a couple of questions that have been raised with supplements, and so if I miss one just shout them back at me. The issue of whether substances can be, you know, are or are not or can be lawfully marketed, and whether we can prohibit them, is no different for supplements than it is for conventional foods. The burden is on the agency to establish whether or not they present a significant or unreasonable risk under the conditions of use. If we make the case that they are, then we could initiate, you know, an administrative rule making to prohibit their use in supplements. So we do have that authority. But the burden is obviously on us.

The issue of labeling, you know, supplements are required by regulation to identify all of the ingredients that are contained in them by their common or usual name. Now one can argue as to what is, in the eyes of the consumer, the "common or usual name" for some of these novel or unusual ingredients. You know, we would argue that the identification of the species as well as a tissue that a reasonably intelligent person could go to a dictionary or a

standard textbook can identify what it is and where it came from, is the appropriate common or usual name.

There are things like orchids, and you can go down the list, sweetbreads is another good example for thymus, that have been in use for decades and arguably could be considered a common or usual name. We simply have not, you know, challenged such sort of colloquial names on supplements. But clearly the requirement is there. Whether there are people not following the requirements clearly is an enforcement matter, as opposed to anything goes.

There were two more I think issues that had been raised or questions.

DR. BOLTON: I think you have dealt with them.

DR. MOORE: Okay. And then the only other, there was one, GMPs. Supplements, you know there is a provision in the 1994 Amendments that gives the agency explicit authority to prescribe good manufacturing practices for supplements, which would, you know, depending again, we would have to make the case for establishing prescriptive requirements, whether it would be for manufacturing processes, sourcing of materials, record keeping requirements, et cetera.

And while we are sort of in the process of putting together some GMP proposals, clearly, you know, the agency has the authority that if a specific tissue presented, you

know, risks that either couldn't be quantified or couldn't be dealt with, we do have the authority through rule making, not by fiat, to put in place controls that would be sufficient to deal with whatever risks are identified.

DR. BROWN: Could I ask a hard question?

DR. BOLTON: Well before you ask the question, let me just summarize I think an important point, and that is that for food and for food supplements, the onus is on the FDA to show that this is not safe, whereas for medicines or pharmaceuticals or biologicals, the onus is on the producer to prove that they are effective and safe. And I look myself at these supplements as a particularly difficult transitional point between food and medicine, and I'm not offering any solutions today, but I think it is important that we and the FDA consider this very carefully, because we have products that people may be taking in their mind thinking because they have some benefit, and they are taking them for that purpose, and yet they are demonstrated, or producers are not being required to demonstrate the same level or any level of effectiveness or safety. It is the FDA's responsibility to show that they are not. Paul and then Peter.

DR. BROWN: Over the past year or so the whole question of dietary supplements has come up once or twice, and my sense from all of the discussion and things that the

FDA has said is that FDA authority if you will is far less rigorous over dietary supplements than any other kind of product. And the question I want to ask the FDA is let us suppose this committee, by unanimous vote, decided to recommend to the FDA that they mandate, that they regulate, that they put out a regulation to prevent any bovine brain from use in a dietary supplement. Let's just suppose. What is the FDA going to do? What can it do and how would it go about doing it?

DR. BRACKETT: If that were the case and we were to pursue that, we would go through our normal regulatory procedures, which would include public discussion and public comment and notice, and it would have to go all through the same as if with any other regulation. So it would be time-consuming.

DR. BROWN: But is it not true that you would run into fire walls of resistance that you would not if it were just a matter of a food or, I mean my whole sense this past year has been that dietary supplements are the but liar of the FDA and you people are always telling us no we will go through the process, we'll do this we will do that. Isn't it a fact that you would have a hell of a bad time trying to do that?

DR. BRACKETT: Well I don't know if it would be any worse than any of the other regulations that we have

tried to propose (laughter). Invariably there's always somebody opposed to it, so one has to actually go and do it to find out what kind of progress.

DR. LURIE: We try to spot some of these things. The first thing we should remember that the current - status, as described accurately by Paul, is not something that has always been that way. It is thanks to the 1994 deregulation to the Dietary Supplement Health and Education Act. So that is something new. The FDA will not do what you are suggesting Paul, because they know they don't stand a chance in hell of pulling it off. That is the truth of it.

The fact is the FDA can't even get something done about ephedra and 50 percent or more of all deaths due to, reported to the FDA associated with dietary supplements are ephedra, 50 percent of them, and that they can't even get anything done, because the standard for and the burden on the agency is so substantial that they can't get that done. Now we have dead people, literally dozens of them, they can't get it done, and here all we are talking is what might be considered by some theoretical, by cow brains that may be in their or may not be, there may be some BSE country or not, the agency doesn't stand a chance and that is why they are not going to do it.

The problem is with the law and with the agency's

insistence on implying that somehow the law does not restrict them and clearly it does. Now there's a lot of, I'll limit it at that.

DR. BOLTON: Steve and then Ray.

DR. DE ARMOND: Dean actually was first.

DR. CLIVER: I just wanted to point out one other problematic aspect of U.S. food law. Safety and wholesomeness are customarily mentioned all in the same breath, but unfortunately wholesomeness is a totally subjective aspect of what is fit to eat in the United States. Things that are perfectly fit to eat in other countries are often considered unwholesome in the United States. So we blur the distinction about what really is protecting consumer health at a time when maybe safety considerations really deserve more of a, to be out front with them, than we are, why we get a lot of stuff about what is fit to eat.

Things that go into cans for example that happen to have had a certain agent in them like e-coli 15787, if it was detected that is an illegal adulterant. Nothing you can subsequently do under your present regulations will make that food fit for human consumption, even though just plain old cooking, let alone canning, would get rid of the agent.

So we've got this level of expectations in the public and it is very difficult for us to really focus on

safety issues.

DR. DE ARMOND: So the original answer by Paul was not so facetious, that is a complete reduction to zero, to answer this question. But I find this question really does have two parts to it, because we have spent, at least the year I have been on this committee, all of this time trying to decide whether and how safe beef products or brain products from England or France might be, so it still begins with that, when would you feel it safe. The package, if it has bovine, I understand you are supposed to identify the country of origin, is that right, of where the bovine material comes from. Is there any regulation about identifying where the tissue comes from?

DR. BRACKETT: Yes it would have to because in order to get through USDA APHIS's import ban, they would have to know where.

DR. DE ARMOND: So on the package -

DR. FERGUSON: But that wouldn't necessarily have to be on the label.

DR. BRACKETT: Right, it could be on the manifest.

DR. DE ARMOND: So that is still something that should be identified, because brain product from the U.S. theoretically is still safe and from sequestered cattle should be safe. The second part though is what about detection of infectivity. Certainly if we detect PRP or an

animal model even has a couple of animals at the lowest tight are getting infected at 300 days, that would say that there is infective material in there and that product is unsafe. So the question of no animals getting sick in our bioassay, does that eliminate the possibility that anyone would ever get infected. It reduces it certainly significantly, but then as Paul says, if this is brain tissue from a BSE country, I still wouldn't take it because I would not be completely assured that it is perfectly safe. All we could say is it is below the detection of our most sensitive assays.

DR. MOORE: If I could just, a point of clarification on the country of origin labeling. That is under, the Customs service actually regulates country of origin labeling and what the requirement is is that, you know, the label must, if it is not a product of the U.S.A., then the label must declare where it came from. The caveat within in that is there's a requirement in the Customs regulations that if the material is materially and significantly transformed as it transits through commerce, the country of origin for labeling purposes changes. So something could originate in Britain, go to Argentina, be materially transformed, and now the country of origin for Customs purposes becomes Argentina. So just to clarify sort of that little thing.

DR. LURIE: The issue isn't the country of origin of the product, the issue is the country of origin of the brain, right? And that is not on the label.

DR. BOLTON: But that really isn't relevant to the question at hand, which is what level of reduction in infectivity is necessary.

DR. DE ARMOND: That's why I think this is a bogus question, because we do, there are multiple levels in which the safety is established, and it begins with testing the animal when it is slaughtered, that is going to be used for this material. And at that stage one can be pretty well assured whether or not the animal has BSE. Once that is established then I would feel safe with the material, and I would test further as we go through the process just to verify that that is the case.

Beginning with the idea that there might be an infection introduced for some reason into a product, and then testing later, we can say whether it contains infectivity or not. We can certainly say that it has infectivity if we find PRP or our bioassays are positive, but we can't absolutely say I don't think if we don't identify anything from a suspicious product whether it is absolutely safe.

I think both have to go hand in hand, testing of the origin of the material followed by testing of the end

product.

DR. BOLTON: Let me suggest that if the FDA is going to launch into beginning to regulate these products, and the discussion we have just had, there's no clear indication that they are, that each product would have to be considered on a case by case basis for regulation, and that you would begin with the source of the material and work down from there, including processing steps and perhaps working finally towards testing individual lots of product for quality assurance. But it is not at all clear to me that the FDA is going to launch into that procedure.

DR. ROOS: I think Paul is right that what is relevant here, or at least one of the important relevant issues, has to do with dietary supplements, and I think he is also right that we've kind of talked about this several times over the last year, and I think we can forget it and just kind of answer this question, or we could deal with it a little bit more.

I'm disturbed by the response, by the last comments of the individual from the FDA, as I have been disturbed each time I hear about the dietary supplements, because there is a question in my mind whether at the moment we have dietary supplements with bovine derived products from BSE countries. And I think that we should take this opportunity to take a stand on that. I mean that is at the

top of our concern here with respect to protecting the United States from BSE and variant Creutzfeldt-Jakob, and I get the distinct impression that there is uncertainty at present whether in fact today on shelves there are dietary supplements that have bovine derived material from BSE countries.

Now maybe the FDA can reassure me about this, but I didn't hear that. In fact what I heard was there was uncertainty at present in the system and that to me is very disquieting and I think we need to address this and maybe this is the appropriate time to do that.

DR. EWENSTEIN: Well I make a couple of points. First of all, you know, I've gotten less and less confident with this distinction between BSE negative and BSE positive countries, because I could have had a pill, you know, your gram of brain, from Japan last month, and now suddenly it is not acceptable, and tomorrow it will be the pill from somewhere else in Asia. So you know, yes if you could specify the herd and you could really do the whole provenance of the drug it would be great, but you can't. So I'm looking at this as something like radiation, where you have a background in the environment, which you have to accept is going to be there. And what I'm asking us to do is try to define some upper limit of what is acceptable.

Now what I am hearing from, you know, many of the

experts on the committee is we have zero tolerance, that if an assay picks up, you know, whatever infectivity our current assays are most sensitive to, that is one prion too many and the product is unacceptable, and maybe that's okay. But I think that we should be clear about that, because if we are really trying to put some teeth into the FDA here to say that we want them to pull a product, we have to tell them, as the expert committee, that that is the case, that any infectivity or any potential infectivity because of where it came from, is unacceptable.

And for different products we have different levels. I mean there is a certain, we know there is a certain amount of bacteria in a piece of meat, but it is below a level that is acceptable. On the other hand, as you say, there are certain toxins that we don't allow in a food product at any detectable level. So I mean I think it is our responsibility to set that level, and if that level is going to be zero, that's okay. But we should be clear, because that's the necessary beginning to a regulation that would then ban a particular product.

DR. DE ARMOND: And that's doable, that's actually doable.

DR. BROWN: Yes. There are two or three important points that were just made. First that we cannot, if we look at a map of countries of the world and look at the

countries that imported meat and bone meal and a lot of cattle during the 1980s, it is almost worldwide, and Japan is a wonderful example. Now they have turned up a couple of cases of BSE, they will probably have a handful more, who knows what they will have. So the previous comfort in distinguishing between BSE free and BSE non-free countries is disappearing. That's point one.

Point two is we can never be totally sure that mistakes won't be made at ports of entry. The example was given several months ago of a large shipment that came into an eastern port that was labeled pesticide, and it was suspiciously large. The Immigration Service decided to open it and discovered it was meat and bone meal from a European country. It was labeled pesticide because it was going to be spread on fields to prevent deer from grazing. Deer don't like meat and bone meal. So that was a leak, that was a hole in the dike, and that can happen anytime.

So it seems to me that given what I think is a virtual total absence of any utility of brain, nervous system tissue, eye tissue, and distal ileum, which are the only tissues that have so far been shown to be infectious from BSE infected cattle, it wouldn't be a bad idea for this committee to simply flat out say nothing containing these products should be used by Americans.

DR. BOLTON: No products containing those tissues,

right. Dr. Brackett?

DR. BRACKETT: Yes, I just wanted to respond to Dr. Roos and make it clear that dietary supplements currently allowed legally in this country may not contain meat products from BSE positive countries. Now that doesn't, you know, that doesn't answer the possibility for mistakes or illegal smuggling of those products in, but they are not allowed.

DR. BOLTON: But given the problem, an example of the type of problem that I think was just brought up, and that is a brain coming from a known BSE country, being imported into a third non-BSE country that may or may not have strict import regulations, being then transformed into a dietary supplement and shipped from that country which is BSE free to the U.S., I believe would not be picked up by current surveillance and regulatory mechanisms. Is that correct?

DR. BRACKETT: I think that is correct. Well -

DR. BOLTON: I believe that that is Dr. Roos's concern.

DR. FERGUSON: Actually one additional point to add. At the department we have recently instituted a regulation primarily for processed animal proteins, this could be included, for those types of third country shipments, where we are requiring that those things come in

with certification that that product essentially is not trans-shipped.

DR. BOLTON: But if it was transformed, if it in fact came in as raw material, beef brain from the U.K., into wherever.

DR. FERGUSON: But let's say for example New Zealand. I mean New Zealanders wouldn't be bringing that in anyway, but -

DR. BOLTON: No, it is not New Zealand that I would be concerned about.

DR. FERGUSON: Okay, Taiwan. You know, we are asking them to, not to pick on any specific country, sorry, anyway we are asking those countries for those types of products to provide certification that whatever animal origin protein in there does not, did not originate from a country that is in our regs on the BSE restricted list or it has not been processed in a facility with something from that country on the BSE list, et cetera.

DR. BOLTON: Let me ask you a tough question then. How comfortable are you.

DR. FERGUSON: I was hoping you weren't going to ask this. I know what you are going to say.

DR. BOLTON: how comfortable are you that that is effective.

DR. FERGUSON: There are always questions about

the validity of certification and the accuracy of certification.

DR. BROWN: And it doesn't answer the question. Trans-shipment does not answer the question of next week, next year, another country coming down with BSE.

DR. DE ARMOND: That's a good point. But that's why you have to test each animal that is going to be used for such a product. It begins there at the site, certifying that this, of whether our best test, the animal doesn't have BSE. It doesn't matter what country. We assume that ultimately we are going to see BSE in the United States. We still have to certify that the source product is safe.

DR. BOLTON: But I doubt that every animal that is slaughtered for even producing products that might contain CNS tissue is going to be instituted.

DR. DE ARMOND: Why not. I mean you have to do it for everything else, and if this is such an important process, why shouldn't it be.

DR. BOLTON: Yes, it is not done for everything else.

DR. FERGUSON: And specifically for BSE, you know, I would caution everybody in relying on testing individual animals with the tests that we currently have and the age of animals that we are slaughtering, you will get mostly positive tests. I mean even if we had BSE in the U.S. you

would be getting positive tests because the tests that we have are relying on finding the abnormal form of prion protein which you are not going to find in that section of the brain until about three months before an animal is clinical. So if you are testing 35 million 18 month old steers, you are going to get 35 million negative tests. I'm sorry, I mis-spoke (laughter).

DR. BOLTON: Yes, I didn't want to send the room into a panic.

DR. FERGUSON: Sorry, sorry, sorry. Anyway my blood sugar is getting a little low here. But yes, you would be getting negative tests and that would be giving false assurance. They could actually be a false negative test.

DR. DE ARMOND: You still have to begin there.

DR. LURIE: Question for Dr. Brackett. What percentage of all FDA regulated products that make it to an American border does FDA inspect, and if you can answer that, just rough, can you answer that question for products that are likely dietary supplements?

DR. BRACKETT: I don't know the answer to that. Does Dr. Moore? It depends on which product you are talking about with imported products, but I don't have that number, what percent.

DR. MOORE: You mean how many entries are

physically examined by the agency?

DR. LURIE: That's what I mean.

DR. MOORE: One to three percent, and it is uniform across commodities roughly.

DR. LURIE: So extremely low percentage of all things that enter the country are inspected, and I would venture to say that if I were an inspector in the Customs Service, you know, an FDA person at the border, I would be less likely to look at things, notably dietary supplements, because I don't have a good law to back me up. Everything, the Dietary Supplement Health Education Act, so weakens me that I'd rather inspect those things where I actually have a chance of making a bust.

DR. BOLTON: Is there further discussion? I get the sense that we have conveyed to the FDA our concerns in this area, particularly with respect to dietary supplements. The concerns about trans-shipment, about third country sourcing and changing by manufacturing, and the inability to identify that country, original source, as the country of importation. If there are other points that anyone on the committee feels need to be made, I would entertain them now. I don't want to keep us here just to keep us here.

If there's additional useful and productive discussion that can go on, I think we should have that. Otherwise I would open it up to the public for comments and

then give us an opportunity to adjourn the meeting. Any members of the committee with additional comments, concerns, questions. Seeing none, are there any members of the public in the audience that would like to make a comment or a statement for the record or for the committee? I see none, and therefore I will entertain a motion to adjourn the meeting. Is there such a motion? Second? This meeting stands adjourned. Thank you very much for attending.

DR. FREAS: Before you leave I first of all would like to thank all the committee members for coming and for the past two days of deliberations. And I would also like to announce that our next TSE Advisory Committee meeting will be January 16th and 17th, that is this coming January. Thank you and everybody have a safe trip home.

(End of session, 11:35 a.m.)