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OFFICE OF SECRETARY
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ADJUDICATIONS STAFF

Secretary US NRC:

Comment on proposed rule to
add Holtec International Hi-Star 100
Cask system to list of approved generic
Spent Fuel Storage Casks
Fed Reg. Jan 11, 1999 Vol 64, # 6, p. 1542 - 1545

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USA
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DS10

Personal note to whomever has to read all this:

I'm sorry this is so long. I'm no expert and you may think I'm concerned about too many details. But I've followed generic cask certification procedures from the start with all the VSC-24 problems. They are there on the pad by Lake Michigan in Wisconsin. I'm worried about them — they have yet to be HT (20 of them) tested. None has ever been unloaded. These are new designs, not tested with the real thing before use at reactors.

I am pleased to see, as I read the Holtec proposed ruling, how far things have progressed as far as NRC realizing what criteria to require, and how to inspect, and do analysis for casks. things are much better. However, the big push by the utilities to rush through more and more cask designs through certification puts a big load on NRC staff. It's hard to cover all the details and the utilities want everything streamlined in haste. The NRC must always remember that public safety is their job — we depend on you to protect us and our kids and grandchildren. That's a burden on your shoulders and you are responsible if something is overlooked.

The utilities want less regulations, less testing, less inspection — but the VSC-24 fiasco proves that these all need to be done — and every detail needs to be understood clearly. Vendors and licensees need to know you mean what you say, and violations and fines will be given. Dry cask storage cannot be treated as garbage at the curb. Plants must treat their spent fuel with the care they treat the reactors.

Thank you for your time, Fawn Shilling Lau

March 1, 1999
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Secretary, U S NRC
attn: Rulemakings and adjudications staff
Comments on proposed rule to add Holtec International Hi-Star
100 cask system to list of approved Spent Fuel Storage Casks
(Fed. Reg. Jan 11, 1999 Volume 64, Number 6, p. 1542 - 1545)

First, you have requested comments on use of direct final rules for future additions and revisions to the list of approved spent fuel storage casks. This request should certainly not have been tacked on to the end of the Holtec proposed rule. It should be put in the federal register as a separate proposed rule up for public comment. If you are going to change the way casks are approved, the public should be aware of it. This way it is sort of hidden away in one cask review, that many people won't be looking at. My opinion on use of direct final rules for future additions is that it hastens cask certification, calling it "noncontroversial and routine". I see it anything but "noncontroversial and routine". How could any one refer to the VSC-24 we have here in Wisconsin as "noncontroversial and routine"? Approval of a cask design in the past has been done way too fast by all parties - vendors, utilities and NRC. We have all learned a lot from the VSC-24 fiasco, but certainly we are not at the point of expidited rulemaking procedures. Give the public, and other vendors, and interested parties, all the time and chances possible to comment on these proposed rulemakings. Publish your responses to comments in the Federal Register and finalize the SER and SAR before a certificate is issued. This is still not clear to me. - I thought the vendor was to produce a TSAR to begin with, then NRC did a preliminary SER on that. Then the vendor, if seeking generic cask approval, had to produce a generic SAR. Isn't this correct? Then this generic

SAR was reviewed for proposed certification and a final SER and CofC for proposed rulemaking was presented to the public. If public comment required changes, then what? In my mind, then the SAR must be revised at that point to correct anything that needed changes. Then the final rule should be in Fed Reg. with responses to comments and corrections explained. That gives the public a chance to see if their concerns were responded to or if there are questions on what was done. Then that should be the end of it — the final rule is to give the cask generic certification — and at that point — when that certificate is signed by the NRC, the generic SAR should be in order — before any use by utilities of the document. (None of this — "make changes in 3 months" or whatever.) — the VSC-24 SAR wasn't changed to meet reality for a long, long time — probably still isn't valid! That was one of the biggest concerns I had all these years. "Change Procedures" have been a very big problem. The SAR should be in order before the certificate is issued.

So, # 10 in the proposed Holtec CofC really bothers me. It says, "the holder of this CofC who desires to make changes to the cask design or the procedures as described in the Topical Safety Analysis Report, or to change the CofC shall submit an application for amendment of the certificate." This is about as clear as mud. What does it mean? It is not the #9 in the Nuhoms certificate. What is the difference?

Is the certificate based on a generic SAR or a TSAR? You have different regulatory guides for these. I think you need a guide for a generic SAR and it should be called a generic SAR, not a TSAR. Clarify this and make sure vendors know generic criteria.

Then is # 10 saying what I hope its saying — does it mean, as it reads, that the vendor has to amend the

certificate, by rulemaking, in order to change any of these three (a) design in SAR (b) procedures in SAR (c) changes to CofC ? That is how it is written. Is that what you mean? all these years we have requested that vendors and utilities not be allowed to change the SAR at will – it has created problem after problem to the point that the SAR no longer had any validity as a document related to "the real thing". I have had a proposed rulemaking on this issue – (to have the documents correctly relating to the real thing) for many years now.* What is the status of this? The nuclear industry group wanted it "held in abeyance", which is what was done I guess – left in a drawer somewhere. I have asked questions about this for years now. Will it ever be in a proposed rule?

The term "holder" should not be used, I think. The "vendor" gets the certificate, not the utility as generic licensee to use the cask. The vendor gets the certificate to build the cask – its his design. If he makes amendment changes to the SAR or CofC then he is responsible – he is liable. But if the utility – (don't call them "holders" either – its just confusing) wants to make changes – then heres the real problem. He uses 72.48 to do so. Does NRC review all of these, no. Does the vendor review all of these, no. Do other utilities (as generic licensees) see this, no. Complete lack of communication in many cases – ending up with really site-specific casks. The utility does not want to ask the vendor to amend the SAR – that takes too long and gets too much review. This is the whole problem with

generic casks and why a lot of us object to them. They really are no longer generic after the utility makes all their site-specific changes. Maybe each utility should have a site specific SAR of their own. Then the liability for changes would be clearly their own. This way, if the utility asks the vendor to change something — who is really liable — are they both off the hook? Who is really responsible when things are built wrong? The QA of the vendor or the QA of the utility? Who is really responsible for the likes of Mark Metalfab??
I think NRC needs to once again evaluate these change procedures. They are the crux of the whole problem with generic dry cask storage.

Ok — enough on all that — now to the Holtec CoC proposed ruling: I'm going to have to write this as I go along reading it now —

(1) Well — here we are with alloy X requiring no zinc coatings. (and I fail to understand then why on earth this isn't required for the VSC-24? We are told they can't find any other coating that won't create a possible hydrogen explosion. We are told the new requirement for "low, sulphur, calcium treated, vacuum degassed steel". We all objected to the carbon steel in the VSC-24. It shouldn't be allowed. — this idea of competition of vendors and the utilities using the cheapest cask they can, no matter what the quality, as long as it is NRC certified, is to the public detriment and to a complete lack of standardization and integration of the whole waste system. Spent fuel has a memory. It is to be put in all these different quality storage casks at plants for 20-50-100 years — all treated differently. What condition will it really be in

when it comes to transport and disposal? Nobody knows. No dry cask has ever been unloaded (although the public has requested over and over that this be done to test unloading procedures for safety and to test the condition of the spent fuel over time — not to do this is asking for trouble in the future — there are unknowns until the real thing is done.)

~~X~~ If NRC allows casks with coatings when there is no need to allow this, when they cause big concerns, then NRC is really creating a problem for future DOE waste systems. This waste system has to be treated as a whole, not just let the utilities do "whatever they want," and then dump the mess in DOE's lap after storage was mishandled at the plants. How spent fuel is stored now will affect the whole waste system in the future. Nothing substandard should be acceptable. If a coating creates hydrogen it shouldn't be used. If materials crack at 0° and can't be moved, then moving temperatures shouldn't be "upped" to 30° just to allow larger flaws "acceptable" in welds. If Holtec has found a material not needing coatings, that has "no transition temperature for brittle behavior as is in ferritic steels" as this CofC states, then certainly the VSC-24 should have to use this too. Why not? So that they can sell VSC-24's cheaper? Who deals with paying for storage problems then? — ratepayers and taxpayers. This is wrong. Someplace here quality needs to be demanded by the NRC, whether its vendor competition or not. The public safety and funds are involved here. Casks need to be tested "the real thing" — before they are used at utilities and no CofC should be issued until all problems are resolved.

I mean I think this sounds great — alloy X, no coatings used, and no problem with brittle behavior — fine for this Holtec design — but why not required for VSC-24's? Wouldn't these material solve the problem there? Shouldn't these be required for public safety?

(2) p3-6 — Why isn't the Cement Hi-Star 100 not an ASME Code stamped component? Fabricators need to meet all NRC criteria. The likes of March Metalfab in creation of VSC-24's cannot happen again.

(3) Have Boral and NS-4-FR ever been used "over time" in a cask? How much "creep or slump" occurred over what period of time? How was this tested in reality?

(4) "No restrictions regarding cask handling at low temperatures are necessary". Good! (It is just wrong to raise the temp. to 30° (from 0°) movement of MSB criteria for the reason that larger flaw cracks can be acceptable in welds at 30°. Now we can no longer move MSBs of the VX-24 in Wis. below 30° in an emergency.)

(5) Do I understand that this has never been built in reality? Has it never actually been tested? Is all this analysis by computer? If so, I strongly object — the real thing should be built and tested before put out in the public at reactors.

(6) How is the pre-passivation or anodization of aluminum surfaces checked? This needs to be checked to avoid a water reaction. Is there criteria for this inspection?

(7) I understand then that the helium will be pure then, correct? No Krypton or Xenon that would have an effect on internal pressure or temperature?

(8) Is leakage of gases, volatiles, fuel fines, and crud credible? Has all analysis addressed this concern?

(9) p3-11 The cask could drop or tipover in the loading area of the plant, couldn't it? — during loading or unloading? What is in the vicinity that it could fall on or hit? Has this been evaluated? What about a drop or tip over in transfer to or from the pad? Will it fall on the ro[illegible]? in a ditch? How retrieved? Damage possible? The road (and any place the cask travels) need to be evaluated for a drop or tip over event. Can the transporter tip over? — has it been evaluated as a vehicle with this load? How will it be transfered to the pad? and the soils at the pad need testing (not at the plant — using its EIS as was done for VSC-24 at Palisades). All the Holtec analysis here seems only for pad.

(10) Seismic Events p3-15 Has the design been evaluated for a seismic event during loading and unloading? (I remember the case where, in the VSC-24 when it was being loaded, there was a situation where the loaded MTC was perched on top of the VCC that was very precarious!) Certainly everything should be evaluated for "position" of other components when casks are being loaded or unloaded in case of a seismic event.

(11) Has there been evaluation for a truck bomb sabatoge event?

(12) p4-1 cladding integrity during unloading — helium circulation Cools to 200°F and water injected" without the risk of boiling". Has this method been tested? Done with a real cask? If not, it should be. A cask needs to be "really" unloaded to prove it can really be done safely — with no surprises!

(13) p4-2 Has the manufacturers literature for the "high emissivity" paint on the overpack been evaluated? How has this been tested? In actual use outside? What

environment? Does it do what it is claimed? If a cask (or parts) are manufactured long before use, how must cask components be stored? For example if a coating is checked at the manufacturer is it again checked at the plant after shipping? Can the components be stored outside or when? How does it remain clean? (I just remember that ANO MTC that "charged color" — I think because it was left out in the yard in the sun too long — needed recoating. Once a cask part is coated, how is it to be kept in useable condition from then on?

(14) p4-4 a conservative drain down time is set I assume. The water is it checked every 6 hr. or anything. There needs to be a set time with lots of leeway. (On the spot calculations during a hectic time, when problems are being solved, is no time to decide this as it appears they are now doing with VSC-24 — can lead to mistakes. The 3rd cask loading at Pt. Beach resulted in a drain down being necessitated and workers exposed to higher doses.

(15) p4-4 I don't trust models. Computers can only spit out data according to what you put in correctly. Build the cask and load it, test it, unload it. Then use it at plants after this.

(16) How far apart are the casks, center to center, in a square array on a pad? Why the square?

(17) p5-1 what is the criteria for the polyester resin "poured" into radial channels? How can this tested? How is it to be handled? at a certain heat to pour? How long to "set" — a certain temp? How is this inspected? Has it been actually tested in a real cask? It should be.

(18) p 5-3 staff notes TSAR analysis assumed significantly higher burnup than allowed and significantly higher initial uranium loading than specified in the table. Then get this changed. I am not satisfied because "Staff has reasonable assurance that the additional conservatisms used in the source term calculation and subsequent shielding analysis will compensate for the low probability of loading spent fuel with initial enrichment values less than those considered in source term calculations. You note that neutron source terms may increase as initial ^{235}U enrichments decrease for a constant burnup and cooling time. This needs to be clear to licencees — just what they can and cannot do — no "low probabilities" of what might be done should exist in any tables or analysis. (I am somewhat confused by any relation of this to a statement in NRC matrix in letter on VSC-24 10/16/98. It says there on p6 item 5-2. "NRC staff has determined that a specified source term is too difficult for most users to determine and it is very difficult for inspectors to verify. The specification of a minimum initial enrichment is a much more straight forward basis for defining the allowed contents. The specification should bound all assemblies proposed to be stored in the cask. Appropriate limits are needed for inclusion in the Certificate of Compliance." This all should be very clear criteria.

(19) p 5-4 Is a "poured" neutron shield really safe? Uncontrolled voids could be a real problem in

occupational dose requirements. I really don't trust this. How has it been tested? Ever used this way before? Inspection criteria? I don't see how you could know if there was a void. Certainly voids are possible.

(20) Have streaming dose rates been actually measured? Will they be on 1st cask loaded, if not already done?

(21) p6-1 — How is minimum B content of the Boral panels tested? Is the fabrication of this material NRC inspected or what? This is important stuff. How do we know it is what it is supposed to be?

(22) p 6-3 What is criteria for an "intact assembly"? How many pinhole leaks are allowed? Blisters? How much crud? Etc.? Is a visual inspection all that is required?

(23) p6-5 More and more as I read it appears that this design depends on the Boral, yet now you allow an exemption that no surveillance or monitoring program is necessary. Should it some check be done?

(24) You say "there is no credible way to loose the fixed neutron poisons". What have you considered?

** (25) p7-1 How are the welds of the HI-STAR lid and closure ring tested. Do UT done? Dye penitrant? Helium sniffing? What is criteria? What size flaws are "acceptable" in welds?

(26) Are shims used at all? If so what size gaps are allowed in fit ups? I don't think shims or gaps are acceptable

(27) p7-2 + 7-3 The applicant should have performed a specific analysis for off-normal conditions for Confinement analysis and the applicant should have included a ^{85}Kr dose calculation to the skin. The application should be complete so that NRC can compare their calculations to the applicants.

28. I think casks should be monitored, unless you have tested the real thing, how do you really know you can depend on an "entirely welded redundant closure system" — It sure isn't definite that our double seal welded VSC-24 casks already loaded at Pt. Beach don't have unacceptable weld cracks. Everything can't be predicted by computer models.
29. The "detailed loading procedures developed by each cask user" should be put in the PDR.
30. p8-2 How long before UT examination can the equipment be calculated? If it should be done within 24 hr. of use, then that needs to be clear and enforced. The UT of 3rd cask loaded at Pt. Beach did not apparently have calibration within time criteria.
31. p8-3 The detailed unloading procedures developed by each cask user should be put in the PDR. The public wants to know casks at plants near them can be unloaded safely.
32. p8-4 I'm very interested in the possibility of crud dispersal and possibilities as to how this can be mitigated. Surely the vendor should have options in the SAR for the licensees to make use of. Are we just saying that the licensees need to solve this problem? Just because no crud dispersal problem has been observed with PWR fuel doesn't mean it isn't a possibility in unloading in 20 years from now. Nobody has ever unloaded spent fuel that has been in a cask for 20 years. We don't really know what to expect. There may be surprises and

licensees should be ready for the unexpected. I think it was Mr. Haughney that said at one of the meetings that everything that can go wrong, will go wrong. Plan for it. Remember, at the Pt. Beach explosion, the staff at Pt. Beach didn't even know the weight of the shield lid — it cost them a lot of valuable time to figure it out at the time of the explosion. Remember, when MSO #4 at Palisades (VSC-24) was found to have weld flaws in the wall welds and they said they would unload it — it was only then they realized they had an "insufficient" as they claimed unloading procedure — they just didn't know how to do it really. They weren't ready to do the unexpected. Expect the unexpected. Require licensees to be ready.

33. We often wondered about the bolted cover plates — could they rust shut over 20 years, or become brittle and crack if opening and turning those bolts in midwinter — I mean the bolts themselves rusting + cracking — won't water, ice and frost get into those bolt holes over the years. Our plumber is forever dealing with rusted pipes practically "welded" together that should come apart easily — rust can be a very strong connector over years.

34. p9-1 — What radiographic exam is applicable? Where?

35. p9-2 PT may be used in lieu of volumetric examination on austenitic stainless steels because flaws in these are "not expected" to exceed the thickness

of the weld head? I really disagree with allowing this. There just have been too many "unexpected" things happening. Please require the volumetric exam. First of all I just don't see how the closure welds on this cask or on the VSC-24 are measured and checked for size. Are they? How? If you don't know for sure what the real size of the actual weld is, how can you accept a certain flaw size? Say a weld is supposed to be 3/4 in, but is only 1/2 in, and you accept 1/2 in cracks — what then? These welds will not be perfect — expect variations — check the welds with UT for cracks. The permanent record part is very important — how will this be enforced? How permanent is a video? Black+White photographs last longer and are easier to handle. If a video gets worn out or mangled in a machine, that's it. And require inspection of testing personell credentials and calibrations of equipment. If that isn't done right — the whole test could be off. Also — can UT measure the width of a crack? radial cracks? Parallel cracks? Transverse cracks? If not, how do you know these aren't there and how can you verify that a wide crack won't cause a problem more than a long or deep one? I am very concerned about UT testing methods being used for dry casks.

36. p 9-4 the poured neutron shield is going to be a problem if voids aren't discovered. Isn't there anything else that can be used here that doesn't have to be poured? This seems a concern and I don't think it should be acceptable.

37 p 9-5 There should be a definite number of Boral panels delegated to each fuel basket and they must be all put in and that number used and a record made

of this. That way they will know that each cell wall has a panel. This needs a very carefull check.

38. p9-5 — The paint on the surfaces of the overpack should be a specific paint not just a requirment of "an emissivity of/ no less than 0.85. If you leave it open lots of different kinds can be used. If you make it specific and you have a problem — you know that all the casks have the same paint. I think the more standardization in casks you can make, the fewer difficulties with propleum solving on a generic levels. (It's like allergies — the fewer you chose, the easier it is to detect and cure)

39. p9-5 with what should casks be marked? Designate a specific material. This needs to be permanent. What will do the job? This is important — they can't use any old marker they have on hand — little things like this can end up to be big problems — (I remember some place in the documents where things like these marks couldn't be easily read on casks)

40 p9-6 — what are "rupture disk replacements"? and how are these to be tested for replacement? What is time criteria and what is considered a rupture?

41. p9-6 (F 9.3) "The applicant/certificate holder/licensee will examine and/or test the HI STAR 100" — what? who do you really mean here? — make it clear — the vendor should do what? Check his subcontractors for what? Is responsible for what? The utility is responsible for what? They need to know exactly what you mean here. This has created problems when its not very clear. (Ends up with everybody saying everybody else was responsible. "We didn't know" should no longer be an excuse.

42 p10-3 Do there an effect of radiation from casks in a full cask array on a pad in which the radiation hits other casks? What is the result? How close -- center to center - can they be? How does weight in a specific array affect the pad? What about when transporter is on pad? Is there enough room, or is pad + cask array planned, so that if a specific cask needs unloading — the transporter can easily get to it between other casks?

43. Would a domed cover be better for runoff and sky shine concerns? Can ice be a problem as far as weight?

44. Will casks be checked in winter for ice + snow loads or ice around base? Will pads be kept clear?

45. p10-3 The licensees report on specific site doses to the public should be put in the PDR. People have a right to know this.

*** (46) Is there an evaluation for a plane crash, with a fuel fire, into a cask or full cask array? Is there a stipulation as to putting a pad in an area where planes regularly fly? Air traffic is getting to be more and more congested and having more and more problems.

(47) p14-1 on what basis does "Holtec anticipate that HI-STAR 100 could be used as part of a final geologic disposal system?" This * should it even be in here at all. Certainly nothing has been settled on that at this point.

Technical Specifications — comments

* (48) p1.1-1 Damaged assemblies — How many pinhole leaks and how many hairline cracks are acceptable. What is criteria for a pinhole leak? If an assembly has crud on it and blisters, as this stuff dries up over the years, this can flake off and expose holes not visible before —

Is this done only by a visual exam? And you can't see rods in an assembly can you? In the center of the assembly? This visual test really doesn't seem sufficient to me. Can't any thing else be done? Do you think assemblies should be cleaned off in some way? I wonder what contaminants are on assemblies from spent fuel pool chemicals over many years — does anybody really know what "crud" at each specific plant is made from? Or how it will react in a cask in the honeycomb basket? Has this ever been looked into in any way? Everything you put into a cask can cause a problem over 20-50-100 years of drying out and cooling down in there. In fact — the major problems may just come at that end of life point — the age nobody seems to be looking at real carefully. As assemblies become very dry — what happens to pinhole + hairline cracks in below 0° weather when the rods are cooled off over the years? Do you know?

* 49. p 1.1-2 Is the TYPE shell welded on top of the baseplate or around the baseplate. Is the weld on the side or on the bottom? Is there "dishing" of the plate? I see that the Bottom of the overpack — the bottom plate is smaller than the overpack shell — there are pockets + recesses there — has this sort of "overhang" of the shell — which creates an edge — been analyzed specifically for tip overs and falls? Any edge like that could hit the concrete first or that. That overhang could be a detriment to the design. How is this area considered in accident analysis — especially in loading + unloading or drop from transporter or tip over.

50. Lifting and pocket + recess should be checked over the years somehow - for cracking or brittleness - can a pocket + recess fill with debris or ice or snow - can an animal or wasps nest get in there, or knife so fuel cools later in life - how are these + recesses kept ready for use over the years? any concerns?

*51. p 4.0-3 What is the critical flaw size? Hasn't this been determined yet? It should be clear criteria here.

*52. How are subcontractors to be audited and inspected? Is there definite criteria for this? How long and where are records required to be kept?

*53. p. 4.0-11 "Special Requirements for First system in place" This has caused problems. Do you mean user of 1st cask at each utility? Or do you mean 1st cask loaded only at 1st utility that uses it? I think that the 1st cask built should be tested — even by artificial means if need be — to a full capacity heat load of 19 KW — This needs to be tested 1st — then let casks be loaded — but have each utility record 1st measurements of 1st cask loaded there too. Clarify all this.

54. p B 3.1.1-2 what is criteria for "dry" helium? — I've never seen this term before. Can helium be wet? If so definite criteria is needed here (and in other cask design specifications — VSC-24). This may cause a problem (There may be water retention in rods too, right?)

55. p B3.1.1-3 — B.1 If MPC can't be vacuum dried successfully, put fuel back in pool — when? The drain down limit was reached at Pt. Beach in 3rd cask loaded and doses were

higher to workers because cask was drained. At what point can you no longer put fuel back in pool? When do you decide to drain the cask and go ahead and finish welding and do UT anyway? Should a change of personnel be ready and waiting to continue the procedures being done by workers receiving the high doses? I think there needs to be more definite criteria here. When there are problems eating up time and the cask reaches drain down criteria, just exactly what should procedures be? When does the fuel have to go back into the pool? When does canister have to be cooled? Then can you take it out and start over again right then or what? This whole situation needs clarity as to what should be done in certain cases.

56. Isn't a certain amount of water to be drained under the MPC lid before welding? How much? Is this clearly put in all directions? Does the temperature of SFP water enter in to all these calculations? Has it been accounted for at different pools? Chemicals in SFP water differ too. Site Specific spent fuel pool needs should be considered by licensees — (can all materials, coatings etc. be put in their specific pool water — how does it affect their pool? How does it affect the cask?)

57. pB-3.1.7-2 — How should height be verified? Should this be recorded so we know?

58. pB 3.1.8-1 How are MPC closure ring, lid, vent and drain covers to be removed? How cut or ground? What

mechanism used? ALARA decided? Debris taken care of so doesn't clog equipment as cut welds? Which cut 1st — vent, drain etc? Procedures for unloading need to be clear and planned carefully ahead — as much of this should be generic as possible — don't leave it all up to however each utility wants to do it. Have some specifications.

58. pB 3.1.8-2 Has this ever been really done? Has this method been tested? Can you effectively lower the MPC internal temperature such that there is no sudden formation of steam during MPC re-flooding. Where has this been tested in "the real thing"! (If not — it should be tested before casks are loaded at reactors.)

59. Are "dry" unloading operations considered? If so, has this ever really been done yet? Criteria?

60. pB.3.1 8-3 If MPC gas temps is not met, no additional actions are appropriate because this is unloading — it must be done? What are possible solutions to problem here? Have they been carefully evaluated? What could go wrong? A test cask should be unloaded so we know — only the real thing will tell you this. (But I know you won't require it as I've been asking for this for years.)

61. pB 3.2.2-1 There need to be definite criteria for the distance of dose measuring mechanisms from the cask + personnel during loading + unloading. (Airborne radioactivity air samplers should have been closer to be more representative of air concentration for workers during the 3rd cask loading at Pt. Beach, it said in the inspection report) There should be definite

criteria to protect workers. Distances should be set.

62. p B3.2.2-2 What is an "inflatable annulus seal"? Did never seen that mentioned before. Do this swiping of only the upper MPC ~~of~~ canal shell wall accessible really a good representative value for contamination? What is a "reasonable number and location of services". Shouldn't there be definite criteria here?

Jim figuring maybe this "inflatable annulus seal" is to prevent streaming before the shield ring is put on the annulus? What is the situation here. Sorry, I just don't trust anything inflatable for use in such situations — anything inflatable can deflate — and probably will just when you don't want it too — or melt or adhere to something & fall in the gap when deflated — or some such goofy situation never expected. This inflatable seal needs a lot of questioning. Has it been tested in the real thing? How? Where? What is it made of: What is it inflated with? How does every thing in it or about it affect its purpose. What can go wrong here? Sounds flimsy to me.

63. The above reminds me that in the 3rd VSC-24 loading at Pt Beach there was a missing gasket on the purge vent hose and they had to analyze effects on fuel if it was inside the MSB (Basket). This ate up time helping to bring about the necessary draindown and higher exposure to workers. Jim thinking that some sort of well — a "trouble shooting" manual — kept updated — and given to each licensee using dry casks — could

be a real help. It would describe postulated "events" as well as unexpected things that have happened at previous loadings and unloadings at other plants — how they were rectified and what procedures were planned to avoid the happening next time.

Self-assessment at each plant can be very helpful to other plants. Lack of communication on such issues may result in repeating the same event over and over that could have been avoided if information were shared. That was one of the big concerns in VSC-24 users — especially when weld cracks were concerned. If a licensee (utility) reports a concern to a vendor, is that vendor required to report the concern to NRC? Or should the utility be required to report a concern to the vendor as well as to the NRC? The utility would be more apt to notify NRC and the vendor would not. He doesn't want to broadcast that his design is creating problems at several utilities. I think this is a real concern and history has shown that some criteria for reporting problems and communication of solutions can be very helpful — in fact crucial in some situations — such as seal weld cracking in lids. Somehow it seems to me there should be some sort of "consumers guide" for utilities and public service commissions, and the public — no, I know you can't advocate one cask as the best or safest if they all meet minimum criteria. But certainly you could have a report comparing materials, contamination degrees, doses to workers and the public — problems having already occurred + solutions — whatever information could help us to compare and

contrast different cask options. We had hearings here in Wisconsin, with our Public Service Commission, on their application from WEPCO to use casks. We had a difficult time gaining accurate information to compare cask designs and procedures. Nobody — including PSC staff wanted or had time to review all the specific SAR's for different casks. And nobody in the public or at DOE seems to be doing this either. I really think if NRC doesn't start some sort of comparative analysis — or maybe just a series of tables listing how many of that type cask is loaded and where and how long and problems occured and how rectified — and how sealed — just <u>basic information</u> — (not advocating any above or below each other) can't NRC do that? This would really help utilities, Public Service Commission, and the public trying to figure out what is different and what is the same in all the cask designs our local utility can choose from. We need help on this. Just basic comparative information in simplified form. I would really like to see something like this available to the public on a periodic basis — updated. You started out doing something like this long ago. If there is something like this, could you send me a copy please?

Well, I'm tired of writing and you are tired of reading all this. Sorry for such length, but it's the only way I have of looking at all this. The devil is in the details of the VSC-24 use and I fear it will be the same for other (untested in reality) casks. All the public can do is continue to ask questions and hope it helps. Thank you,

Joan Shillinglaw