From: 彭燕
To: Lee, Samson
Cc: roger.l.blaine@gmail.com; eric.loewen@ge.com; zdh2008@139.com
Subject: [External_Sender] About TeleConference of NRC on August 14th, 2020
Date: Saturday, August 15, 2020 3:52:04 AM

Good Morning NRC,

I am Yan PENG, working in China Institute of Atomic Energy.
Thank you for your TeleConference on AFW system.

There is my summary just for your reference.

These 11-Question-Discussion can let me know the key problems in the AFW system, such as pipe corrosion rate, elbows, and pumps in LCV.
Here, external and internal surface corrosions should be distinguished by the operation environments; the count of elbows and pipe segments will increase the work loads of inspection; the connection relationship between LCV and pumps shall be clarified; and especially, the quantity of Steam Generators must influence the results of PRA. These discussions can highlight the difficult works in this AFW system.
Furthermore, the experts emphasized the 7-Day fixing action can guarantee the work of defense in depth; also, they introduced the ways of cultivate the typical engineers or personnels, based on the description of NRC document ML20196L772.
Hence, in order to avoid an unnecessary plant shutdown, how to handle with the exigent amendment request was discussed well, through the reasons of the problems, through the human factors, and through the management or regulation rules.

All of the above is my summary only for this TeleConference.

Best wishes,
Yan

-----原始邮件-----
发件人:"彭燕" <pengyan@ciae.ac.cn>
发送时间:2020-08-07 13:05:23 (星期五)
收件人: alina.schiller@nrc.gov, cayetano.santos@nrc.gov
抄送: jennivine.rankin@nrc.gov, roger.l.blaine@gmail.com, eric.loewen@ge.com, zdh2008@139.com
主题: About TeleConference of NRC on August 6, 2020

Good Morning NRC,

I am Yan PENG, working in China Institute of Atomic Energy.
Thank you for your TeleConference on Safety Review of Licensing Actions, which looks like to be prepared only for me.
Yes, and thank you again.

In fact, I have read and studied the relative documents on AP1000 PCS (Passive Containment Cooling System), including the code of WGOTHIC with the CLIME. For example, NUREG-1793 Supplement 2 (Docket No. 52-006), page 21-281.

Therefore, based on the Passive Containment Cooling design, I can understand what you have discussed in this TeleConference. For me, the function of containment isolation shall be depended on the sensor applications, which is the reason why I asked my question. Furthermore, according to the PCS design, I personally believe the curvature of the containment is the most important design for realizing its passive function and other targets of controlling, such as the long-term cooling.

Do you think this kind of cooling is greatly decided by the spreading area of the coolant film, even though there are many gutters against the outside wall of the containment? That is meaning how to weld the pieces of containment plates is very crucial to form the shape that we have designed. But that is very difficult to be controlled and to be realized without considerations of the irradiation deformations. I do think so.

Then, for me, there are two key points for comprehending the functions of containment isolation: the first one is the shape or structure of the containment; the second one is the signal analysis based on the sensor applications.

All of the above is my summary only for this TeleConference.

Best wishes,
Yan

-----原始邮件-----
发件人:"彭燕" <pengyan@ciae.ac.cn>
发送时间:2020-07-31 14:26:35 (星期五)
收件人: jennivine.rankin@nrc.gov, cayetano.santos@nrc.gov
抄送: roger.l.blaine@gmail.com, eric.loewen@ge.com, zdh2008@139.com
主题: About TeleConference of NRC on July 30, 2020

Good Morning NRC,

I am Yan PENG, working in China Institute of Atomic Energy.

Thank you for your TeleConference on Safety Review of Licensing Actions for SNC's Vogtle Electric Generating.

For me, these six or seven comment-discussions let me know there are a lot of work during the transition period from the Construction Reactor Oversight process to the Reactor Oversight Process.

In fact,I summarized what I have heard into some key words: changes, commercial operation and inspection.

Whatever the findings of them are, open or close, I do believe the IEs, MSs and BI are the nuclear parts of what we want to assess; and the baseline of ROP can quantitatively evaluate what we have done.

For example, in the document of ML20210M222, it is noted that "during this evaluation, the staff found that sufficient industry data on the active components with AP1000 passive safety system did not exist(Page 9: V. Performance Indicators)." Therefore, during this transition period, if we do want to achieve the assessment (or performance assessment), data come first to guarantee the effective works of ITAAC, PRA and ROP with the baseline.

And for me, again, it is pretty right to work hard in my Pellet to Cladding Interaction study, because that is a kind of data!

All of the above is my summary only for this TeleConference.

Best wishes,

Yan

-----原始邮件-----
发件人:"彭燕" <pengyan@ciae.ac.cn>
发送时间:2020-07-24 10:17:29 (星期五)
收件人: jennivine.rankin@nrc.gov, cayetano.santos@nrc.gov
抄送: roger.l.blaine@gmail.com, eric.loewen@ge.com, zdh2008@139.com
主题: About TeleConference of NRC on July 23, 2020

Good Morning NRC,
I am Yan PENG, working in China Institute of Atomic Energy.
Thank you for your TeleConference on the Safety Review of Licensing Actions for SNC's Vogtle Electric Generating Plant, Unit 3 and Unit 4.
There is my summary for this open portion.
The topic is the relationship among the limit ranges, the number of wells and the count of the flows.
For me, I downloaded the document of ML20181A491 from the NRC ADAMS Public Documents, and get some knowledge about this WELL. If I am right, that may be similar to the groundwater observation well.
Even though I do not understand the function of the flow, here, I still can image it as a kind of fluid flowing in the coolant channels. Therefore, under the certain situations or conditions, for 12 wells, if it is necessary to confirm the limit ranges (upper and lower) per well, the count of multiple flows is very important. I do think so. However, as far as I learned, there shall be an empirical formula or matrix to be used to calculate these values of the limit ranges, whatever they are: 25%, 50%, 55% and 60%.
Yes!
All of the above is my summary only for this Teleconference Open Portion.
Best wishes,
Yan

-----原始邮件-----
发件人:"彭燕" <pengyan@ciae.ac.cn>
发送时间:2020-07-24 10:17:29 (星期五)
收件人: jennivine.rankin@nrc.gov, cayetano.santos@nrc.gov
抄送: roger.l.blaine@gmail.com, eric.loewen@ge.com, zdh2008@139.com
主题: About TeleConference of NRC on July 23, 2020

Good Morning NRC,

I am Yan PENG, working in China Institute of Atomic Energy.

Thank you for your TeleConference on the Safety Review of Licensing Actions for SNC's Vogtle Electric Generating Plant, Unit 3 and Unit 4.

There is my summary for this open portion.
The topic is the relationship among the limit ranges, the number of wells and the count of the flows.
For me, I downloaded the document of ML20181A491 from the NRC ADAMS Public Documents, and get some knowledge about this WELL. If I am right, that may be similar to the groundwater observation well.
Even though I do not understand the function of the flow, here, I still can image it as a kind of fluid flowing in the coolant channels. Therefore, under the certain situations or conditions, for 12 wells, if it is necessary to confirm the limit ranges (upper and lower) per well, the count of multiple flows is very important. I do think so. However, as far as I learned, there shall be an empirical formula or matrix to be used to calculate these values of the limit ranges, whatever they are: 25%, 50%, 55% and 60%.
Yes!

All of the above is my summary only for this Teleconference Open Portion.

Best wishes,
Yan

-----原始邮件-----
发件人:peng3219_cn@sina.com
发送时间:2020-07-24 08:46:27 (星期五)
收件人: pengyan@ciae.ac.cn
抄送:
主题: About TeleConference of NRC on July 20, 2020

在 7月21日 12:55，peng3219_cn<peng3219_cn@sina.com>
写道：

Good Morning NRC,
I am Yan PENG, working in China Institute of Atomic Energy.
Thank you for your TeleConference on GEH Nuclear Energy Quality Assurance Program Description (QAPD) Revision 6.

Talk about Revisions of GEH Nuclear Energy Quality Assurance Program Description (QAPD) Program.
I have downloaded the relative documents from NRC Web-based ADAMS, they are:
1989: ML14093A209: NEDO-11209-04A Revision 8;
2010: ML103480313: NEDO-11209 Revision 9;
2010: ML112140602: NEDO-11209 Revision 9;
2014: ML14090A330: NEDO-11209 Revision 11 (page of PDF: 50-52; page of document:47-49);
2015: ML15063A014: NEDO-11209 Revision 11 (page of PDF: 68-70; page of document:48-50);
2015: ML15043A414: NEDO-11209-A Revision 12 (page of PDF: 68-70; page of document:48-50);
2020: ML20120A553: NEDO-11209A Revision 14 (page of PDF: 53-55; page of document:50-52);
2020: ML20150A336: NEDO-11209 Revision 15.

Test Control has several parts: general description, test requirements, test procedures (for other than computer programs and for computer programs), test results, test records, and commitment. Especially, in NEDO-11209 Revision 8, the Test Control only includes three parts: product test program, pre-operational testing and startup testing.

Therefore, in these documents, I do not find the definition or expressing word of Determinology, if I am right. So, according to our discussion, I confirmed that

there are some (or many) uncertainties in the test control. And so again, this determinology should not be used here. This is my own opinion.
Furthermore, I got the Subpart 2.7 in the Revision of 2015, that is for computer software. Based on the above introduction, Test Procedures have at least two aims, one is for computer programs, the other is not for computer programs.
All in all, Test Control of Design Control is a really difficult work.

By the way, in my oral speaking, I found there was a wrong way to express what I wanted to say, that is about " 'where your question is in the slides?' and I answered 'I do not have that PPT, I just ... notebook...by my written' ". In fact, I wanted to express, the Section 11 on Test Control is known well by my record wrote in my notebook. This section discussion was followed with the NRC expert's question about the Vessel material.
Yes!
I wish I explain them clearly in this email.

Hence, this is my summary only for this TeleConference.
Best wishes,
Yan

--

发自新浪邮箱客户端

> 在 7月17日 23:07，peng3219_cn<peng3219_cn@sina.com>
> 写道：
>
> Good Morning NRC,
> I am Yan PENG, working in China Institute of Atomic Energy.
> Thank you for your TeleConference on the Review Process and Schedule for Topical Report (TR) for Allowance of Heat Load Patterns in Hi-Storm 100 and Hi-Storm FW Systems Review.
>
> There is my summary only for this open portion, as your reference:
> Review is not the same as redoing.
>
> Best wishes,
> Yan
>
> --
>
> 发自新浪邮箱客户端
>
> > 在 今天11:57，peng3219_cn<peng3219_cn@sina.com>
> > 写道：
> >
> > Good Morning NRC,
> > I am Yan PENG, working in China Institute of Atomic Energy.
> > Thank you for your TeleConference on the Safety Review of Licensing for SNC's Vogtle Electric Generating Plant, Unit 3 and 4.
> >
> > In fact, I have listened to at least 5 TeleConferences on SNC's Vogtle, and clearly feel that the focused point of SNC is the capability of implementation. They emphasize the changes, such as the size of diameter; emphasize the concrete case or scenario; and emphasize the test and the code simulation. Therefore, the work for controlling the "why" and the "how" is the strong background for SNC's implementation!
> >
> > Then, from the point of NRC's view, integrity and safety come first...
> >
> > So, as far as I comprehend, the difficult thing to keep the balance between the SNC's work and the requirements of NRC is to list all the cases and the scenarios of the NPP! Even though we have recognized the methodology is not changed, we still have not enough capability to exhaustively list what a NPP experienced. Not even to talk about the interactions among them.
> > Therefore, the principle of envelope and the development speed of the engineering shall be reemphasized. Especially, we all know "fool's haste is no speed", however, as a lazy ('not be quick') worker, this kind of development must be a day-dream, forever!
> >
> > All of the above is my summary only for this TeleConference. Reference.
> >
> > Best wishes,
> > Yan
> >
> > --
> >
> > 发自新浪邮箱客户端
> >
> > > 在 7月15日 11:23，peng3219_cn<peng3219_cn@sina.com>
> > > 写道：
> > >
> > > Good Morning NRC,
> > > I am Yan PENG, working in China Institute of Atomic Energy.
> > >
> > > Thank you, indeed, for your TeleConference on the Activities of Industry Materials Programs.
> > >
> > > According to the conditions of Beijing time zone, I only enjoyed in the morning part of this TeleConference. So, I have listened to five topics: BWRVIP, WRTC, IMR, Probabilistic Fracture Mechanics Regulatory Guide, and 10 CFR 50.55a Rulemaking Plans.
> > >
> > > As a member of ASTM E37 on Thermal Measurements, I do believe I can understand what you have discussed in this TeleConference. So, there is my summary of the morning part, as followed:
> > > As far as I comprehended, these activities of industry material programs can be categorized into two items: one is the type of material damages; the other is the method to deal with them. Therefore, the degradation of material, the stress corrosion, the cracks, the fracture toughness and the leakage were talked about, of course, the special components also were emphasized by the experts, such as the nozzle, the bolted connectors and the elbows. As to the methods for controlling these damages or defects, the tests, the inspections, the evaluations and the rulemaking were discussed.
> > >
> > > For me, there are some focused points which did let me enjoy in this TeleConference. First of all, RFA 1~11!!! What a powerful work for weld and repair! Maybe, the new alloy, such as advanced radiation resistant materials, could cause many attentions of us all; however, for me, the welding solution is more valuable! There are 80 fabricated samples (304, 316, and alloy 182) tested with weldability data, and some samples with damages up to 30dpa. The most important thing is these welding and characterization were completed at ORNL and Westinghouse.
> > >
> > > Furthermore, the increased temperature in the leak test, the crud which can induce the power shifted, the crack initiation&growth, and the uncertainty analysis can let me clearly explain why my study for Pellet to Cladding Interaction is so complex!

OK, this is my summary only for this TeleConference. Reference.

Best wishes,
Yan

--

发自新浪邮箱客户端

在 7月10日 15:47，peng3219_cn<peng3219_cn@sina.com>
写道：

Good Morning NRC,

There is a clarification about the titles of my emails.

"About Teleconference of NRC on July 9th, 2020"
The above title is right with the preposition of "on".

Thank you all for your reading my summary emails.

Best wishes,
Yan

--

发自新浪邮箱客户端

在 今天11:30，peng3219_cn<peng3219_cn@sina.com>
写道：

Good Morning NRC,
I am Yan PENG, working in China Institute of Atomic Energy.
Thank you for your Teleconference on Force-on-Force Inspection Activities.

In fact, I could not completely follow every word which you all discussed. However, as a member of this world, I can combine what I have experienced in this period of COVID-19 to listen to this Teleconference.

I just am a grassroots of China, not the government official and not the manager. Therefore, from my point of view, the most important thing for protecting our safety in COVID-19 is to improve everyone self consciousness of safety. That is meaning, as long as we indeed recognize this safety control is necessary and important, then, the rules of force-on-force inspection can be effective. Otherwise, the minimum social distance, the minimum number of workers, the masks, and the medical protection system will exist in name only.

By the way, there is a very interesting question on the year of 2023, I think. Also, I do NOT hope there will be a so long period of this kind of inspection.

Yes! Working without such diseases is a good thing for us all.

All of the above is my summary only for this Teleconference. Reference.

Best wishes,
Yan

----- Original Message -----
From: <peng3219_cn@sina.com>
To: "" <kim.green@nrc.gov>, "" <michael.wentzel@nrc.gov>
Cc: "" <roger.l.blaine@gmail.com>, "" <eric.loewen@ge.com>, "" <zdh2008@139.com>,
Subject: Teleconference of NRC in June 25, 2020
Date: 2020-06-26 00:51

Good Morning NRC and Ms. Kim,
I am Yan PENG, working in China Institute of Atomic Energy. I just am a general scientific research staff or personnel of this institute, of course not a regulator. Frankly speaking, I am a grassroot of China, absolutely.

Thank you for your Teleconference on Discussing Extension of the Steam Generator Tube Inspection Frequency.

As far as I learned, the inspection of the SG tube is very important to guarantee the safety of the NPPs. That is the key unit of heating transfer among the primary coolant, the secondary coolant and the steam of the turbine. So, the every tube of SG are required to inspect well in all kinds of NPPs.
Even though I could not completely hear and understand every word which the speakers introduced, I still can understand the main points what they communicated. For example, the speakers highlighted the percentages, such as 100%, 150%, and 200% (if I am right), these datum exhibit the amount of the surveillance work; the separated regions of inspection which maybe the cause of inspection frequency extension; the operation cycles which shall be depended on the tube material physical properties under the irradiation conditions of NPPs, named as integrity; and the statistical model in test inspect that is my focused content.

Now, let me explain my question on "Is it available to use this statistical model to find the region of the leakage and the reason of the leakage in Steam Generator?" Firstly, let us review what we have communicated in the slides of 17 to 24: there are the requirements of frequency changes, the assessment of inspection, the feedback, and the schedule for separate test inspects (Units). Hence, this statistical model, I believe, is similar to PIRT, Phenomenon Identification and Ranking Table, if I am right again.
Naturally, we all know the important functions of this PIRT!
OK, let me re-state the reason why I asked this question based on the above background: the leakage of Steam Generator tube shall be confirmed through the surveillance, this is our aim of

having this Teleconference, I do think so. Then, whatever the surveillance frequency is , we must guarantee to find the defects of these tubes in time. Furthermore, how? Of course, depending on these statistical analysis of test inspection datum, absolutely. These data shall tell us the doses of releasing from the leaked tube to the outside atmosphere; shall tell us the location of leakage; and shall tell us the reason why there is the leakage, such as Flow Induced Vibration, corrosion, or hot spots caused by dry out.

All of the above is my summary only for this Teleconference, just for your reference.

Best wishes,
Yan

P.S. In my question, the pronunciation of the Surveillance is not right. "Service"? No! That shall be Surveillance. Correct, now.

--

发自新浪邮箱客户端

> 在 6月25日 12:01，peng3219_cn<peng3219_cn@sina.com>
> 写道：
>
> * The specific "surveillance" frequency DOSE matter, such as for the neutron spectrum and for the matrix.
>
> Correction: The specific " surveillance" frequency does matter, such as for the neutron spectrum and for the matrix.
> Reason: Typo.
>
> Best wishes,
> Yan
>
> > 在 今天00:45，peng3219_cn<peng3219_cn@sina.com>
> > 写道：
> >
> > Good Morning NRC and Mr. Williams,
> > I am Yan PENG, working in China Institute of Atomic Energy.
> > Thank you for your Teleconference on Proposed TSTF-425 license amendment request for Virgil C. Summer Nuclear Station (VCSNS), Unit 1
> >
> > There is my summary just for your reference:
> > The specific surveillance frequency requirements are very important in PRA. However, as far as I learned, the event trees and the fault trees are the key details of PRA. So, the logic relationship of PRA is the most important part of documenting. In this deep sense, I think, the expression of "cell to cell mapping" is better than one by one or line by line in PRA evaluation or reviewing.
> >
> > Then, come back to my question on the relationship between the uncertainty and the key assumption. My question is "May I understand in this way: addressing uncertainty is the same as the key assumption identifying?"
> > The reason why I ask this question is I believe the sources of uncertainty is not only decided by the key hypothesis or assumption in PRA.
> > Therefore, the specific "surveillance" frequency dose matter, such as for the neutron spectrum and for the matrix.
> >
> > All the above is my understanding only for this Teleconference.
> >
> > Best wishes,
> > Yan PENG
> >
> > 发自新浪邮箱客户端
> >
> > > 在 6月19日
> > > 12:17，peng3219_cn<peng3219_cn@sina.com>
> > > 写道：
> > >
> > > Good Morning NRC,
> > > I am Yan PENG, working in China Institute of Atomic Energy.
> > > Thank you for your Bridge line to let me enjoy in your Teleconference on Advanced Reactor.
> > >
> > > There is my summary just for your reference, as followed.
> > > PRA for Non-LWR, SMR NLWR and Micro Reactor is the main topic of this Teleconference. From principle design criteria, to classification of SSCs, to fuel qualification, to source term development, to QA program, to Safeguards information Plan, and finally to Accident Analysis method, it is definite that PRA is necessary work for them all.
> > > Especially in Slide-10, the dash line can tell us the special topology of NLWR PRA in risk informed applications. Just because of this dash line, it is highlighted about the difference between LWR and NLWR. Furthermore, there also are many differences among NLWR, SMR NLWR, and Micro Reactors, such as in structures, in operation experiences and in working principles!
> > > Therefore, the separate regulations including annual fees are very very necessary. Maybe, in this way, "Number grows fast" could be controlled well.
> > >
> > > All of the above is my summary only for this Teleconference.
> > >
> > > Best wishes,

Yan PENG

--

发自新浪邮箱客户端

在 今天11:56，peng3219_cn<peng3219_cn@sina.com> 写道：

Good Morning NRC and Mr. Burnell,
I am Yan PENG, working in China Institute of Atomic Energy.
Thank you, all, for your giving me this time to communicate with you on Vogtle Readiness Group Activities to Support Construction in Teleconference.

In this ITAAC discussion, you emphasized the relationship between the changes and the safety of construction and operation.
So, there was my question on Inspectation (Inspection). In fact, according to the logic connections of inspections, tests, analyses and acceptance criteria, we can know, without many difficulties, the aim of ITAAC is to confirm the criteria, whatever they are in, such as in design or in operation. Therefore, dynamic environment which was mentioned by the experts of this Teleconference, does matter. Naturally, ageing of materials belong to that condition. In this background, how we gain the updated criteria under the transient circumstances of NPP is very important for guaranteeing the right application of ITAAC. That is a chain connecting of these four items, just like the chain-reaction of fuel materials in our NPPs.
Furthermore, I have read relative documents on ULPU Facility, for example. The surface thermocouple (sensor or monitor) and their signals do tell us the inspection is a kind of work with huge complexities!
Yes, and Yes again.

This is my summary & my question explaining, just only for this Teleconference.

Reference.

Best wishes,
Yan PENG

--

发自新浪邮箱客户端

在 6月17日 11:29，peng3219_cn<peng3219_cn@sina.com> 写道：

Good Morning NRC,
I am Yan PENG, working in China Institute of Atomic Energy.
Thank you for your Teleconference on Security Oversight for Nuclear Power Plant.

In this communication, I firstly felt some difficult to immediately understand what you have discussed and communicated, due to the compact content of this Teleconference and the higher speeds of speaking. Therefore, I need a little longer time to arrange my written records and write my summary as followed.

For me, in this Teleconference, it is well stated about the necessity of security, which is guaranteed by benchmark, guidelines, and better performance documents; about the procedures of keeping security, which include the practices, the exercises, and the modifications; about the person factor of security, which emphasizes the area, the distance of location away from the power plant, the population, the repopulation and the density; about the facility factor of security, which highlights the composition, the system, and maintenance; and

about the strategies of security, which naturally is Force on Force.

After deeply introducing the opinions of experts, in this Teleconference, I found a very special innovation arrangement, that is the Q&A section of Industry experts and NRC experts. Who is the questioner? Of course, Industry experts! Except the form of communicating each other, the questions and the answers can exhibit the work contents of them all. For NRC, documenting must be based on Agenda and Schedule; and for Industry, the details of what they have done do matter.

All of the above is what I have listened, just for your reference.

Best wishes.
Yan PENG

--

发自新浪邮箱客户端

在 6月13日 00:56，peng3219_cn<peng3219_cn@sina.com> 写道：

Good Morning NRC,
I am Yan PENG, working in China Institute of Atomic Energy.
Thank you for your sharing me your Teleconference on Planned Digital Modernization License Amendment Request.
I have tried my best to comprehend your communication, there is my summary as followed, just for your reference.

There are two aspects of this Teleconference: one is how to modernize; the other is what the modernization will bring to us.
As far as I understand in this Teleconference, I do believe the detail of this modernization was introduced very well, even though it is lack of the evaluation introduction about the results of those eliminating some functions and some components & equipments in RPS, NSSSS and ECCS.
However, the focused points of NRC, including the lessons learned from pre-application meetings, are discussed in a very general way, just some conceptions, such as public benefit, detail, deviation or design joint.
But, again, there is an exception: about the relationship between control function and video (VDUs). Why? Because there is a good NRC comment on the translating method; and also, there is a good

response on the safety control balance between equipment and component!
So, in fact, digital modernization is a huge and complex engineering. Maybe, in a very short 2-hour time, it is not able to review and discuss them clearly.
Naturally, a general style of our communication is a natural thing.

All of the above is my summary only for this Teleconference.

Best wishes,
Yan PENG
--

发自新浪邮箱客户端

在 6月12日 23:46，peng3219_cn<peng3219_cn@sina.com> 写道：

Good Morning NRC,
I am Yan PENG, working in China Institute of Atomic Energy.
Thank you for your sharing me your Teleconference on Planned Digital Modernization License Amendment Request.
I have tried my best to comprehend your communication, there is my summary as followed, just for your reference.

There are two aspects of this Teleconference: one is how to modernize; the other is what the modernization will bring to us.
As far as I understand in this Teleconference, I do believe the detail of this modernization is introduced

very well, even though it is lack of the evaluation introduction about the results of those eliminating some functions and some components & equipments in RPS, NSSSS and ECCS. However, the focused points of NRC, including the lessons learned from pre-application meetings, are discussed in a very general way, just some conceptions, such as public benefit, detail, oversight or design joint. But, again, there is an exception: about the relationship between control function and video (VDUs). Why? Because there is a good NRC comment on the translating method; and also, there is a good response on the safety control balance between equipment and component! So, in fact, digital modernization is a huge and complex engineering. Maybe, in a very short 2-hour time, it is not able to review and

discuss
them
clearly.
Naturally,
a general
style of
our
communication
is a
natural
thing.

All of the
above is
my
summary
only for
this
Teleconference.

Best
wishes,
Yan
PENG

--

发自新浪
邮箱客户
端

在
6月4日
22:45，peng3219_cn<peng3219_cn@sina.com>
写
道：

Good
Morning
NRC,

Thank
you
for
your
Teleconference
on
the
safety
review
of
licensing
actions
for
SNC's
Vogtle
Electric
Generating
Plant,
Units
3
and
4.

There
is
my
summary
of
my
listening,
just
for
your
reference.
For
me,
I
agree
with
this
kind
of
opinion:
the
aim
of
reviewing
the
detail
of
the
flaw
of
the

vessel materials, including the weld ones, is to guarantee the integrity of the construction. Yes, whatever the size, the location, the number and the category (pre-service flaw, service flaw, and urgent cracks) of the flaw are, we still need to use the material physical properties to evaluate them, for example, storage modulus, residual modulus and shear modulus. All of these physical properties of materials with the flaws can let us know the lifetime of them in service. Therefore, reexamination criteria, for instance, strain and stress margins, do matter.

This is my understanding according

to
the
experts'
introduction
and
discussions.

Best
wishes,
Yan

-
-

发自新浪邮箱客户端

在
今
天00:53，peng3219_cn<peng3219_cn@sina.com>
写
道:

Good
Afternoon
NRC,

Thank
you
for
your
Teleconference
and
WebEx
on
the
Extremely
Low
Probability
of
Rupture
Code
Training
introduction.

There
is
my
summary
just
for
your
reference:
I
do
share
with
the
complexities
of
the
code
models,
especially
for
those
coefficients
of
the
physical
and
mathematical
models.
However,
as
far
as
I
concerned,
the
tips
of
the
crack
and
the
propagation
of

the crack are the most important factors to evaluate its negative functions in the materials, whatever they are.

If the initiation of the crack can be defined as the tip of the crack, I believe the shape of the tip or initiation shall be identified, such the acute angles of the crack. Furthermore, if the growth of the crack can be defined as the propagation of them, those 6 models of growth may be not simulate the heterogeneous characteristics of their growing in the materials.

Then, from the point of pellet to cladding

interaction
view,
thermal
loads
of
irradiation
and
coolant
temperature
gradients
(such
as
the
interface
between
the
layers
of
thermal
stratifications)
and
the
propagation
of
the
material
defects
both
can
control
the
growth
degree
of
the
cracks
in
fuel
and
cladding.
Hence,
this
code
can
be
learned
by
me,
but
need
to
modify
according
to
the
real
conditions
which
I
want
to
simulate.

All
the
above
is
my
summary
only
for
this
teleconferenc.

Best
wishes,
Yan
PENG
-
-

发自新浪邮箱客户端

在
5月28日
21:38，peng3219_cn<peng3219_cn@sina.com>
写

道:

Good Morning NRC, Thank you for your Teleconference on SNC's Vogtle Electric Generating Plant, Unit 3 and Unit 4.

In this very cute public discussion, I still can make my summary about this Teleconference: there will be a very close communication on special nuclear material in the construction area, including its characters of import and exportation. Furthermore, there will be a further discussion on its protection plane based on the 7367.

This is my wrapping up, just for your reference.

Best wishes,
Yan PENG

-
-

发

自新浪邮箱客户端

在
今
天21:35，peng3219_cn<peng3219_cn@sina.com>
写
道:

Good
Morning
NRC,
Thank
you
for
your
Teleconference
on
SNC's
Vogtle
Electric
Generating
Plant,
Unit
3
and
Unit
4.

In
this
very
cute
public
discussion,
I
still
can
make
my
summary
about
this
Teleconference:
there
will
be
a
very
close
communication
on
special
nuclear
material
in
the
construction
area,
including
its
characters
of
import
and
exportation.
Furthermore,
there
will
be
a
further
discussion
on
its
protection
plane
based
on
the
7367.

This
is
my
wrapping
up,
just
for

your
reference.

Best
wishes,
Yan
PENG

-
-

发自新浪邮箱客户端

在
5月27日
23:32，peng3219_cn<peng3219_cn@sina.com>
写
道：

Good
Morning
NRC,

Thank
you
for
your
Public
Teleconference
about
Turbine-
Driven
Main
Feedwater
Pumps.

In
this
very
clear
discussion,
I
have
my
summary
as
followed:
As
far
as
my
understanding,
there
is
a
very
complicate
balance
relationship
among
the
turbine,
the
feedwater
pump,
the
switch
and
the
bypass.
Even
though
the
percentages
of
the
power
are
different,
which
can
increase
the
complex
degree
of

our discussion, the operation system balance still is important enough to be highlighed. I do think so. For example, the bypass system design characteristics shall be given more introduction, just like the parallel design of the pumps. Hence, the feedwater system resistance (the pressure head of pump) and the supplied power are both important for our discussion.

All the above is my understanding in this teleconference, just for your reference.

Best wishes,
Yan PENG

--

发自新浪邮箱客户端

在5月21日23:42，peng3219_cn<peng3219_cn@sina.com>写道:

Good Morning NRC, I am Yan PENG, working in China Institute of Atomic Energy. I have attended in the Public Teleconference on Safety Review of Licensing Actions for SNC's Vogtle Electric Generating Plant, in this morning. Thank you for your sharing your discussion with me, again.

In this discussion, I think the flaw and the defect are the focused points in our discussion of safety. In order to keep safety, we can depend on the regulations of Section 11 and Section 3; we can depend on the examinations of the real circumstances

of pipe and components, such as jumper; we also can depend on the test results of samples which will be gained by hard work of the sampling. Hence, even though the quantity of the components is huge, and even though the current capability of predition is not good enough to identify the periods and trends of flaw/defect growth, we still have the design, the demonstration work and the examination requirments. Therefore, as long as we can get a good relationship among the design, the demonstration and the examination, I think, we can successfully build up

the series of uncertainty analysis lists, which are crucial to confirm what we want to focus on, flaw and defect; furthermore, we also can keep the application balance between Section 11 and Section 3.

All the above is my comprehension based on our discussion.

Just for your reference.

Best wishes,
Yan PENG

P.S.
The sound of "bong" from my mobile phone was the voice of my cup dropping onto the floor.
Sorry!

-
-

发自新浪邮箱客户端

在5月14日23:53，peng3219_cn<peng3219_cn@sina.com>写

道：

Good
Morning
NRC,

I
am
Yan
PENG,
working
in
China
Institute
of
Atomic
Energy.
I
have
attended
in
the
Public
Teleconference
on
SNC's
Vogtle
Electric
Generating
Plant,
Units
3
and
4,
in
this
morning.

Thank
you
for
your
giving
me
this
bridge
line
to
let
me
enjoy
in
your
discussion.

In
fact,
I
do
wish
to
listen
to
your
third
topic.
So,
I
would
save
some
words
in
my
summary
about
this
telephone
communication:
I
am
not
unfamilliar
with
AP1000,
based
on
this
condition,
I
can
understand
the
main
part

of your discussion, even though I do not have your PPT document. For example, in Section 11 discussion, NRC focus on the interaction effects between the Flood and the components of AP1000. As far as I comprehend, I believe these focused points of NRC are served for the criterion setting of the plant safety. Furthermore, the discussion of the value 10% lets this conference come into the essence of the communication which is the number is nothing but number and NRC works for confirming the fundamental concept that can be used to determine the boundary

which can influence on the plant system integrity. Finally, there is an introduction about schedule. Unfortunately, the initial part of this topic was missed by my mobile phone connecting, maybe. And fortunately, I caught up with the main part of it later. This topic is about irradiation protection and inspection through 3G founding. In fact, I do not completely understand the whole introduction due to some nomenclature, such as 'trinual' and 'binual' (according to the pronunciations of the expert).

OK, the above words are my gaining from this Teleconference. Thanks again and again. Best

wishes,
Yan

-
-

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