WEBINAR TRANSCRIPT

This document provides the transcript from a public meeting (webinar) that was held on June 3, 2019, to update the public on the status of fuel loading at the San Onofre Nuclear Generating Station. Fuel transfer operations were suspended following an August 3, 2018, incident that resulted in the misalignment of a multi-purpose canister loaded with spent fuel at the San Onofre Nuclear Generating Station.

Hosts of Webinar:

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Region IV

Lee Brookhart, Senior ISFSI Inspector
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Good afternoon, and thank
you for joining the webinar.
My name is Linda Howell,
I'm the Acting Director
of Region IV's Division of
Nuclear Material Safety.
With me is Mr. Lee Brookhart,
the region's Senior Dry
Fuel Storage Inspector.
The purpose of this afternoon's meeting
is to share information
concerning NRC's evaluation
of the final outstanding issue
that I briefed you on back in March,
which involves changes
or exceptions planned
for the UMAX Final Safety Analysis Report
to accept that minor
scratching might occur
as the result of incidental contact
between the multipurpose canisters
and internal components of storage vaults
in the UMAX dry fuel storage system.
Our discussion this afternoon
will also cover the process
that we used to make the determination
that Southern California Edison
could resume fuel transfer operations,
and I will talk briefly
about some activities
that Southern California
Edison has identified

as needing to occur before they
begin active fuel transfer operations.
Next slide please.
As you see on the agenda,
following discussion
regarding NRC's decision
on the resumption of
fuel transfer operations
we'll open the meeting to accept
questions from our audience.
This is a Category 3 meeting,
so public participation is encouraged.
However, due to the period of time
that we have reserved for this webinar,
and in the interest of
fairness to all participants,
I would like to ask that audience members
limit their questions to two, initially,
so that we can address questions
from as many participants as
possible in the time allotted.
As we've done in the past,
questions and comments
from today's session will be
posted to our Spotlight page.
I acknowledge that several
of you have provided feedback
on our delay in responding
to your questions from prior webinars,
but we do have those in process now.
Up until now, our staff has been
fully occupied with

inspecting SONGS efforts.
I'll also note that in
addition to today's webinar
Scott Morris, our Regional Administrator,
and I will also be speaking
at the San Onofre Community
Engagement Panel meeting
this coming Wednesday, June 5th.
We look forward to meeting
with some of you directly
and answering any questions
that you may have.
Next slide please.
In the event of an emergency,
all of us in the room
will stay together and exit
the building through the front doors.
We'll remain in the parking
lot until the situation is over
and we're allowed to reenter the building.
We will provide notification
to the audience participants
in the event that we do have an emergency.
Let me also ask the staff in the room
to silence your cellphones
during the meeting
and please keep your voices down
because the meeting is being recorded.
Lastly, be mindful that the
meeting is being broadcast,
so if individuals present
need to exit the room,

please use the rear doors.
As noted in the slides,
should we have technical difficulties
with the webinar broadcast,
a telephone bridge will be available.
The phone number for that
bridge is on the slide.
The bridge line will only be activated
if we experience technical
difficulties with the broadcast.
These slides are available
on the Spotlight portion
of the NRC public webpage at www.nrc.gov.
From the Spotlight section
on the left side of the page
click on "SONGS Cask Loading Issue".
You'll find a file name with
the NRC webinar presentation
on our final determination
on fuel loading operations.
The slides are also already available
on the NRC's Agency-wide Document Access
and Management System, or ADAMS.
The video and transcript
from today's meeting
will also be posted to the
Spotlight section of our webpage.
In addition we'll post
the comments and questions
that we receive this afternoon.
Please note that the
transcript of the meeting

and the questions will take
a few weeks to be posted
since NRC must receive the
transcript from the contractor
who is providing the webinar service,
and review both the
transcript and questions
to ensure accuracy of the information.
We are also required by the Americans
with Disabilities Act to provide
closed captioning for the video.
We apologize in advance for
the delays and inconvenience,
but we cannot control or
expedite this process.
Those of you who have
registered for the webinar,
however, will be able to access
the video shortly after the
conclusion of the meeting.
During the presentation, you
may submit written comments
and questions via the
webinar chat room feature.
We'll answer questions
and respond to comments as time allows.
This webinar is scheduled to
end at 1 p.m. Pacific Time.
Next slide please.
I expect that many of you
here today are familiar
with the August 3rd incident

that occurred at San Onofre.
But because we have some
attendees that have not followed
this particular event and
follow-on activities closely,
I am going to provide a brief overview of
key activities that have
occurred since August 3, 2018.
On August 3rd, Southern California Edison
was lowering a loaded spent fuel canister
into its underground storage vault.
For the current fuel offload
for Units 2 and 3,
Southern California Edison
is using the HI-STORM UMAX
dry fuel storage system
designed by Holtec International
which provides dry spent fuel storage
in a vertical below grade configuration.
As that canister was being
lowered into the storage vault,
the licensee personnel failed to notice
that the canister was misaligned
and was not being properly lowered.
Licensee personnel continued
to lower the lifting equipment
until they believed that the
canister was fully lowered
into the bottom of the storage vault.
As the staff prepared to
approach the ISFSI pad,
a radiation protection technician

identified elevated radiation levels
that were not consistent
with a fully-lowered canister.
Licensee personnel
participating in the evolution
then identified that the
loaded spent fuel canister
was resting on a metal shield ring
near the top of the storage vault,
preventing it from being lowered,
and that the rigging was completely slack,
no longer bearing the load of the canister.
With the vertical cask
transfer system lift
beam completely lowered,
and that equipment is used
to lower and lift canisters
into and from the storage vaults,
the important-to-safety
slings were disabled
from performing their safety
function of suspending
and controlling the loaded
spent fuel canister.
The licensee estimated that the canister
could have experienced an
approximate 17 to 18 foot drop
into the storage vault if the canister
had slipped off the metal ring
or if the metal ring failed.
This load drop accident is
not a condition analyzed

in the dry fuel storage system's
Final Safety Analysis Report,
which is tied to the
Certificate of Compliance
or the licensing document.
The licensee estimated that the canister
was in an unanalyzed drop condition
for a period of 45 minutes to one hour.
Licensee personnel did restore
control of the canister load.
They repositioned the canister
and safely lowered it
into the storage vault.
The licensee halted all
dry fuel storage movements
to fully investigate the incident
and develop corrective actions.
The licensee also promptly
shared operational experience
with other users of the
UMAX storage system.
Currently there is only one other site
that uses the UMAX dry fuel storage system
in the United States,
and that's the Callaway plant in Missouri.
Region IV became aware of
the incident on August 6th
when Southern California Edison
provided a courtesy
phone call to our staff
and described the incident
as a near-miss event.

NRC staff determined that
the licensee should have
made a 24-hour event report
to the NRC operations center
and informed Southern
California Edison staff
of their determination.
During discussions with Region IV managers
on August 6th, including myself,
Southern California Edison committed
to suspend fuel transfer
operations until they
completed an investigation
of the incident,
understood the causes, and
implemented corrective actions
based on their investigation findings.
They further committed to continue
to suspend fuel transfer operations
until NRC completed an
independent investigation,
and was satisfied that
Southern California Edison's
corrective actions were adequate.
Hence, the prolonged suspension
of fuel transfer operations at the site.
Next slide please.
NRC initiated a special inspection
and had an inspection team onsite
the week of September 10, 2018,
to interview personnel, observe equipment,
and review relevant documentation,

including the licensee's investigation
and proposed corrective actions.
The inspection included
many hours of subsequent
in-office review of the
licensee's many causal analyses
and technical assessments
that were not complete
at the time of the onsite
portion of our inspection.
The special inspection report
was issued on November 28, 2018,
with an errata published on December 19th.
The report documented three
Severity Level IV Violations,
which are the lowest safety significance
for cited violations under
our enforcement policy.
The report also described
two apparent violations,
which were considered for
escalated enforcement action.
The three Severity Level IV violations
involved failures to establish measures
to ensure that conditions
adverse to quality
were promptly identified and corrected,
and that refers to the licensee's
formal corrective action program,
failure to ensure operations of equipment
and controls identified
as important to safety

were limited to trained
and certified personnel,
and a failure to provide
qualitative or quantitative
acceptance criteria
in procedures to ensure
that important activities
are accomplished as planned
during dry fuel storage operations.
Correspondence transmitting
the special inspection report
offered the choice of participation
in a predecisional enforcement conference
or an alternate dispute resolution session
to address the apparent violations.
Southern California Edison
elected to participate
in a predecisional enforcement conference.
That conference was conducted
on January 24, 2019,
and was broadcast via public webinar.
Next slide please.
NRC inspectors began
Follow-up inspections at SONGS
in November 2018 to independently
assess the licensee's
corrective actions and
technical assessments.
The inspection effort is
now reaching its conclusion.
During the follow-up inspections,
NRC identified several

weaknesses and corrective actions
implemented by the licensee.
These included: causal evaluations
did not address radiation
protection issues,
which we believed contributed
to some of the causal factors
associated with the
incident, and changes made
to the executive oversight
board process were inadequate,
meaning they were more
administrative than substantive.
Procedure changes, particularly
for the downloading procedure,
lacked contingency steps
for equipment failures,
had incomplete criteria
for suspending downloading operations,
and had incomplete steps to
meet seismic criteria
during canister transport
from the fuel building
to the spent fuel storage pad.
We also noted a weakness
in review of maintenance procedures.
The new equipment
enhancements put in place
were improperly designated
as not important-to-safety,
when they should have
been important-to-safety,

the new load sensing
devices were not procured
in accordance with the vendor's
design purchase specifications,
and the load sensing devices were not
tested to the appropriate load capacity.
While we did identify weaknesses,
I want to note specifically
that the equipment
was not used to transfer fuel prior
to correcting these issues.
The licensee also identified
that past movement
of loaded canisters from the fuel building
to the storage pad may have
resulted in the transport unit
coming too close to
structures along the route.
NRC inspectors identified that when
the Vertical Cask
Transporter, which again,
is used to move the
canister on the storage pad,
approached the storage vault
mating device,
licensee personnel prematurely
removed a seismic restraint,
contrary to the associated
seismic analysis.
These weaknesses factored
into the NRC's decision
on proposing a civil penalty

for the escalated enforcement action.
Next slide please.
On March 25, 2019, the final
enforcement action was issued,
and a public webinar
was conducted the same day
to discuss the final action
with public stakeholders.
The final enforcement action
included two violations.
The first violation involved
the failure to ensure
that important-to-safety
equipment was available
to provide redundant drop protection
for a loaded spent fuel canister
during canister downloading.
The spent fuel storage system
used by Southern California Edison
requires its spent fuel canister be lifted
and carried with redundant
drop protection features.
This was categorized as a
Severity Level II violation.
The NRC considered whether
credit was warranted
for identification and corrective action.
No identification credit was given
because the violation was identified
through a self-revealing event.
No corrective action credit was granted
based on several considerations,

including the weaknesses
that I just discussed.
In accordance with the
NRC enforcement policy,
this violation was assessed
a $116,000 civil penalty.
I just want to pause and note that issuance
of a Severity Level II violation,
the second most safety
significant category
under our enforcement
policy, has never been done
for a spent fuel storage licensee.
The second violation involved failure
to make timely notification to the NRC.
Licensees are required to notify the NRC
within 24 hours of the discovery of events
involving spent fuel in which
important-to-safety equipment
is disabled or fails to
function as designed.
This violation was categorized as
a Severity Level III violation.
Since SONGS has not been the subject
of escalated enforcement
within the past two years,
corrective action credit was considered.
The NRC did determine
a corrective action credit was warranted,
and no civil penalty was
assessed for that violation.
A response to the Notice

of Violation was received
by NRC on April 23, 2019.
We reviewed the licensee's response
and found it satisfactory.
But I want to note that our review
of the licensee's corrective
actions, as described
in their correspondence, was supplemented
by our many months of
inspection activities.
Region IV representatives
subsequently attended
the SONGS Community
Engagement Panel meeting
in California on March 28th.
We were represented
by the Region IV Regional Administrator,
Scott Morris, and myself.
Along with staff from the
Office of Public Affairs
and the Office of Congressional Affairs,
Scott and I also met with
congressional district staffers
on March 28th while we were
in Southern California.
We discussed all the observations
of our follow-on inspection
and the final enforcement
action during those engagements.
I also want to note or remind you
that during the March 25th public webinar,
and the March 28th Community

Engagement Panel meeting,
we discussed the licensee's
corrective actions
and observations from the
NRC's follow-up inspection
that was initiated back in November 2018,
and which is still ongoing.
NRC noted that while certain weaknesses
in the licensee's corrective
actions were observed,
with one exception, all corrective actions
and observed weaknesses had been addressed
as of the March 25th webinar.
The one outstanding issue
involves scratching of canisters
during fabrication or
handling prior to insertion,
during canister insertion,
and possibly during
future canister withdrawal.
This was determined to be an
outstanding compliance issue,
not a safety issue, which
needed to be resolved
before the licensee resumed
fuel transfer operations.
And with that, let's move
on to the next slide,
and resolution of that outstanding issue
and the path to resuming
fuel transfer operations.
The issue of incidental contact

during canister insertion
and the potential for scratching
was initially discussed with
Southern California Edison
when we began our follow-up inspection
back in November 2018.
Southern California Edison
reviewed several approaches
to demonstrate that potential scratching,
due to incidental
contact between canisters
and the internal storage vault components,
would not exceed
allowable American Society
of Mechanical Engineers,
or ASME, code limits.
I'll also note that the
technical specifications
associated with this
Certificate of Compliance
do reference Section III
of the ASME Code.
Southern California Edison
ultimately initiated
in situ visual assessments
of downloaded canisters
using robotics and
three-dimensional video imaging.
We talked a little bit
about this at the March 28th
Community Engagement Panel meeting.
That method of examination

is commonly used
in the aeronautics industry
and is being examined
for future use as an option
in spent fuel canister
aging management programs.
The statistically suitable
number of canisters,
a total of eight, were examined
with imaging of the
canister wall surfaces.
Using a statistical analysis methodology,
and the actual canister wear data,
as visualized during the
three-dimensional imaging,
the licensee concluded that
there is 95% probability
with a 95% confidence level
that a scratch after canister insertion
and withdrawal would not be any deeper
than what is allowed under the ASME Code.
Their evaluation encompasses
scratches that might occur
during insertion,
scratches that might occur
during withdrawal, and
assumes that those two models
of scratches may be superimposed.
The evaluation also
considers the potential
for these scratches to overlay flaws
that may have resulted during fabrication

or handling prior to downloading.
The scratch depth calculated
by the licensee's analysis
is viewed as conservative
within the allowable
ASME Boiler and Pressure
Vessel Code limits.
For this situation, the
applicable limit for wear
is less than 10% of the
canister wall thickness.
The licensee then used the
10 CFR 72.48 review process
to support a change to sections
of the UMAX Final Safety Analysis Report
to acknowledge that
some canister scratching
or wear may occur during
operational activities.
And if you recall our
earlier discussions in March,
there are two subsections
of the Final Safety Analysis Report
that stated that there was ample room
between the canister and the interior wall
of the storage vault such that
no scratching could occur.
That's since been demonstrated
to not be the case.
Next slide please.
So let's move on to the NRC's evaluation.
Now that I've shared what

Southern California Edison
has completed in its evaluation,
I'll explain what the
NRC has done in terms
of our assessment of that evaluation.
First, we had an inspector
on site to observe
seven of the eight canister examinations.
Our inspection activities were focused on
verifying the effectiveness of the process
and the validity of the data obtained,
so that we would be
better prepared to review
Southern California Edison's report.
So our inspector was actually
standing side by side
with Southern California
Edison's contractor
looking at the data as it was transmitted
so that we could verify that the data
in Southern California Edison's report
was the same as what we saw
while the examination was ongoing.
We did not simply accept a report
from Southern California Edison.
We independently validated the data
obtained during the canister examinations.
NRC staff also performed
independent statistical assessments
using several methods which verified
that the licensee's
evaluation reasonably bounds

the maximum scratch depth.
We used a staff member
who has a doctorate degree
in statistics to verify
the licensee's analysis.
That staff member also used
the actual data obtained
through the visual assessments
to perform independent
statistical analyses using several models
that were appropriate for the sample size.
Our conclusion, through our
independent assessments,
is that the conclusion
presented by Southern California Edison
was conservative and reasonably bounds
the maximum anticipated scratch or wear
resulting from operational activities.
Next slide please.
I and my staff briefed
senior agency management
on our conclusions,
and on May 17th I was authorized
to notify senior Southern
California Edison management
that NRC had completed its review
of the canister scratching analysis
and accepted the Southern
California Edison evaluations.
Southern California Edison was informed
that once they confirmed
that they were confident

that all corrective
actions had been completed
to their satisfaction,
the NRC has no objection
to them resuming fuel transfer operations.
Southern California Edison documented
the basis for their decision to prepare
to resume fuel transfer operations
in a letter to the NRC dated May 17th.
That letter is now publicly available
in our electronic
document system, or ADAMS,
and the document is also
available in the Spotlight section
of the NRC webpage.
In its correspondence
Southern California Edison
described additional
activities that must occur
prior to resuming fuel
transfer operations.
These include training employees,
ensuring that personnel
qualifications are in place,
and completing certain equipment checks.
Completion of these activities
is expected to take several weeks,
and Southern California Edison
is committed to provide us
verbal notification when
they are ready to resume
fuel transfer operations, in

advance of actually doing so.
In the interim, I and my staff
continue weekly teleconferences
with senior Southern
California Edison managers
to obtain updates on site activities
so that we can plan our inspection
and oversight activities effectively.
Depending on the type
and extent of training
that will need to be done
prior to resuming fuel loading
we may be on site to
observe those activities.
Once the licensee resumes
fuel transfer operations,
we will initiate unannounced inspections
that will be performed frequently
to observe the licensee's implementation
of their enhanced programs.
I anticipate performing
inspections several times
for a few days during
the calendar quarter,
and then we will produce formal reports
to let the public know how
the activities are proceeding.
We'll continue to engage with the public
to keep you informed.
We plan to support the upcoming
June 5th Community
Engagement Panel meeting,

and we are developing
strategies for holding
a public meeting in a
community local to SONGS.
With that, I'd like to turn the meeting
over to our facilitator,
Mr. Austin Roberts.
Austin has been monitoring questions
as they've been submitted
during the webinar.
And again, I want to note that
in the interest of fairness,
we'll limit questions from a
single audience member to two,
so that we can maximize the
ability for all participants
to submit questions, and
then we'll come back
for additional submittals as time permits.
Thank you.
- Good morning, or good afternoon.
My name is Austin Roberts
and as facilitator
for this meeting I will
be asking questions
and addressing comments from the public
and putting them to our panel here.
From the back of the room,
so far we have not had
any public questions
put to us through the
attendees of the webinar.

If you are attending the webinar,
you have a Questions tab
at the side of your screen,
which you can use to put questions to us.
It is similar to an
instant message feature.
We'll be seeing those on our side,
and we'd be happy to
address any public comments
or questions that you may
have regarding our decision
to allow the resumption of
fuel transfer operations.
Our first question from the public,
how is the NRC factoring lessons learned
from the San Onofre event into its
oversight efforts at other sites?
- That's a great question,
and we have talked about that in the past.
We will be collectively, with our peers
in the other regional offices
and the applicable division
in the Office of Nuclear
Materials Safety and Safeguards,
taking a look at the oversight process.
By that I mean our inspection procedures,
to see if anything can be enhanced
to either look at things
in different sequences
or at different frequencies.
- Thank you.
If there are any other

questions from the public,
again, it's the Questions tab, it should be
on the right-hand side of your screen.
Our second question from the public,
excuse me one second,
the contents of can number 30 were removed
from the spent fuel pool 10 months ago.
Canister number 30 is now in
the fuel handling building
inside a transfer cask;
is the NRC concerned about
dangerous heat buildup
inside canister number 30?
And they also want to
know if you can tell us
what is the internal and
exterior temperatures
of can number 30?
- When we were on site
during January and February
we did go into the building
that contains the canister number 30.
We are not concerned with
the heat on the canister.
They go in every day, I
think two times a day,
every 12 hours and take measurements
on the outside of the canister,
and is well below any kind
of the design safety values.
So there's no concern on the canister.
It can stay in the fuel building

indefinitely, if need be.
- Thank you.
Will there be any design
changes to the ceiling
alignment rings in the vaults?
- At the present time we have
no indication from Holtec
that they anticipate any design change
with those components.
- I have another design related question:
Are you addressing the
substandard thin casings issue?
We need the super thick casings
that are transportable to be used instead.
- I'll take that one.
The canisters that are in use for
the UMAX spent fuel storage
system have been approved,
and there is no foreseeable
safety issue with them.
- Thank you.
Did the NRC's root
cause analysis determine
that gouging on the walls is caused by
a lack of a precision
canister downloading system?
- The NRC evaluated
the root cause analyses
completed by Holtec- or by
Southern California Edison
and its contractor Holtec.
And we have no indication that the gouging

needs to have any further evaluation.
We're comfortable with their conclusions
on how the gouging, actual
scratching occurred.
- Thank you.
Will the NRC be on hand
for the first canister
loading once it resumes?
- Yes, we do plan to be
on hand when the licensee
resumes fuel transfer operations.
I mentioned in my discussion that we
are holding weekly conversations
with Southern California Edison,
and the purpose of those conversations
is to actually be aware
of what their schedule
and their anticipated resumption date is.
- Our next question is about
the physical condition of the canisters.
The canisters would have months
of coastal salt air and soot
baked onto the surface.
How did the licensee clean
the surface of the canisters
before the visual
inspection with the cameras?
- There was no need to clean
the exterior of the canister.
The robot could very
easily determine where,
if any, scratches or where marks were

and what the depth were, or the depth was,
each scratch that it found.
There was no reason to clean it.
- Another question, can you tell us
what the target date to resume loading is?
- No, we actually can't speak to that.
That will be a decision made
by Southern California Edison.
And as I mentioned, it
depends on several factors
including the need to do
training and qualified personnel
as well as equipment checks.
So we have no projected
timeline for that at this point.
- Thank you.
According to a number given by-
according to a number given
at the predecisional
enforcement conference,
canisters one through
four have an estimated
51 broken bolts and shims
between them, or shim standoffs,
has the NRC determined that
these canisters are safe?
- Yes, so the four canisters in question
relating to the shim standoff was an issue
that has been identified
by the licensee to the NRC,
and that has been, went through-
the Division of Spent

Fuel Management reviewed,
because it's a generic concern.
It's not just Southern California Edison's
canisters that were affected.
They did provide analysis to
our Division of Spent Fuel Management
that they did review,
and those canisters
are safe for storage, and
there's no issues with them
continuing to be stored
at Southern California Edison.
- I have another question
about the thickness of the canister walls,
or a comment, rather.
The lack of concern about what a leak
out of these thin canisters
would mean to containment
is still evident by the
nonchalant answers provided.
Thick-walled canisters should
be provided for public safety.
- That's a comment?
- That's a comment, not a question,
but we do want to respect those comments
and make sure that your comments
are brought to attention.
What ASME pressure vessel in service code
was used to determine that
less than 10% gouging is acceptable?
- That value comes from Section III
of the ASME Boiler and

Pressure Vessel Code.
- Thank you.
A question I asked earlier,
that you did answer, was about
whether the NRC determined
that a root cause
from our root cause analysis
determined that gouging of the walls
was caused by the contractor's
lack of precision canister
downloading system;
a follow-on question to that is,
what was the root cause that
was derived from that root cause analysis?
- The root cause was more than
just looking into the design.
It was looking at the training,
the corrective action
program, the procedures,
and what led to the two individuals
being out on the pad that
disabled the important-to-safety slings.
So it really looked at the root cause.
And the root cause was basically
that the management
had failed to recognize
the implications of a long
storage campaign operation
where usually they're a lot shorter
unless they're unloading
the whole pool to pad,
and all the new influx of new individuals,

the training, the procedures.
So it really combined a
bunch of contributing causes.
- Thank you.
We still have time for
some more questions.
Again, we would like the focus
of this question and comment
to be about our decision
to allow the resumption
of fuel transfer operations.
Here we have one, another question.
Does the NRC agree that the
scratches heal over time?
- On stainless steel There
is, it's called, re-, re-,
I can't think of the word.
Cast, bind, or something.
Yes, I don't know if
they necessarily heal.
But I have heard of that term.
I don't know if I definitely believe that.
- I believe that's
terminology that has been used
by Southern California Edison
at various public meetings.
- Thank you.
We have a question about the licensee,
how are public safety
concerns being addressed
given that Edison has
discontinued the alert system?

- The alert system, if it's
the notification system
required under Emergency
Preparedness Programs,
is something that needs to be active
while the facility is in operation.
Once they decommission and
they are no longer operating,
that system can be eliminated
under exemption authorized by the NRC.
- Thank you.
Our next question from the public:
the NRC has claimed that
the cans are compliant
with ASME code but they
are not ASME certified.
Can you explain the difference?
Can you explain why not?
- Sure, I'll take that and Lee
can supplement if he chooses to.
These canisters under
10 CFR Part 72,
they are not required to
be fully ASME certified
because they are not a
true pressure vessel.
However, the ASME code is
recognized as an acceptable method
of demonstrating certain design features.
And for the technical specifications
associated with this
Certificate of Compliance,

Holtec International did
refer to certain sections
of the ASME Code.
- Thank you.
What monitoring mechanism is being
provided on the storage canisters?
And what schedule to guarantee
that no leaks are about to occur?
- Do you want to take that?
- Well the licensee does
have radiation protection,
TLDs or monitoring systems,
set up around their
owner controlled barrier
and around the ISFSI
that would monitor
for any type of release.
On the system itself there's
temperature monitoring
and they also inspect the vents to ensure
that they're open on a daily basis.
So if any kind of rise in temperature
above a certain degree, they would go out
and look at the canister and
verify everything's acceptable.
- Thank you.
How was the Final Safety Analysis
Report able to be revised
regarding possibility of an
acceptability of scratches
without approval from the NRC?
- Under the 72.48 process, the licensee

is allowed to make design
changes to their systems.
They have a set of questions to go through
that's listed in the regs
that they must answer,
and that if they do pass, then
they can make that change.
Only when they do not pass those questions
would they have to submit it
to the NRC for review and approval.
And the scratches did
pass all those questions.
- Thank you.
We have a follow-up to
our question from before
about the alert system at San Onofre.
It's a follow-up:
Given the near accident
being discussed today,
is it possible that the NRC can require
the licensee to restart the alert system?
- We generally would not do that.
And I don't know who posed the question,
but we've stated in
several public meetings
that even if the canister
would have dropped
into the storage vault,
its integrity would have been maintained
and there would have been
no release of radioactive materials.
- Thank you.

Could you describe your
coordination with SCE
and the Community Engagement Panel
regarding presenting at the CEP meeting?
Please advise the names
of persons from the NRC
that communicate with SCE
and the Community Engagement Panel.
Who from the licensee has
communicated with the NRC
about the same issue?
- Could you repeat That question please?
- I think they want the
names of individuals
from the NRC and from the licensee
that were in communication
in preparing for the
Community Engagement Panel.
- I generally serve as the
primary communication point
between the Community Engagement Panel,
and that's independent from my contacts
with Southern California Edison.
I'm also one of the primary contacts
for the regional office,
at least for inspection
oversight activities,
with Southern California Edison managers.
- Thank you.
We have a question about,
again about ASME compliance.
What about internal pressure

buildup from hydrogen
off gassing from damaged fuel.
Would that not make the fuel
canister a pressure vessel?
- The canisters are drained of all water,
down to vacuum levels, and
then back-filled with helium.
So there is no hydrogen generation in here
because there's no water to
be separated to make hydrogen.
Helium's a noble gas.
It's not going to divide on its own.
So there would be no
risk of hydrogen buildup
inside the canister.
So once they're back filled
with helium to a certain value
it's going to stay that value
until it's eventually opened
to remove the canisters, or the fuel.
- Next question is, if monitoring shows
that a breach has happened,
how would you transport
the breached canister,
to which location and structure,
to prevent further leaks
from the damaged canister
and then what would be the ultimate fate
if there were a breach of the canister?
- At the present time there's
no anticipated breaching of canisters.
They're stable, they're designed

to remain in dry storage
for many, many years.
If a canister, if something
happened to a canister,
the licensee would have
to come up with a plan.
Generally we believe they would
probably use an overpack of the canister.
- Thank you.
We have a couple questions
along the same lines.
The commenter says: my
understanding is that there
is at least a liter of
water in each canister;
can the expert prove his claim?
And again, a second question,
are you saying there is
no water in the canister?
- Yeah, they're vacuumed
down to very low levels,
and at the system used at
Southern California Edison
they used forced helium dehydration
to remove all water from the system.
So there is no,
there is no water in these systems,
definitely not a liter
of water, really none.
- Thank you.
Looking at long-term storage,
a question from the public is,

would you say that these
canisters can safely
store nuclear waste at its current site
for over 50 years or over 100 years?
- The Certificates of
Compliance are being renewed
for a period of 40 years.
So the 50-year period, yes it is likely.
They are designed to be
able to be both stored
in the dry fuel storage
system as well as transported
to a final storage site.
- We have a follow-up
about the names of people
and the nature of
coordination with the licensee
regarding the Community Engagement Panel:
please answer the question as
to whom you communicate with
to coordinate your
appearance and presentation.
Who from Southern California Edison?
Who from the CEP?
- When we're invited to attend
a Community Engagement Panel meeting,
it's Dr. David Victor,
the chair of the panel,
who typically extends the invitation.
I am not sure who Southern
California Edison communicates,
who they designate for

communicating with the CEP is.
I cannot speak for them.
- And a follow-up to the
question before that.
Over 50 years of storage you'd
say wouldn't exactly be safe,
is the question from the public.
(inaudible)
- That was not the statement.
We said that there is ample evidence
that it would be safe
in 50 years and beyond.
The canisters are not only
designed to be maintained safely
in the dry fuel storage system,
but they are also designed
for transportation
to a final repository or
an interim repository site.
- Yeah, I'll add onto that.
There's many systems that have
gone beyond their 20 years,
and they've gone and
done these inspections
on these canisters and
they're not seeing any issues
of corrosion or deformation
to the canisters.
And they're easily again renewed
for another 40-year licensing period.
- The questions have slowed
down a little bit coming in.

We want to remind everybody we have
about 10, 15 minutes remaining here.
We do want to focus on
questions and comments
that you might have about our decision
to allow the resuming of
fuel transfer operations
at SONGS, at San Onofre.
Given the public health risks at stake,
and given that the NRC
is the regulating body,
don't you feel that to simply
say that you don't anticipate
something to a canister, without
a backup plan, is a sufficient answer?
The canisters are scratched,
on a seismic fault line,
and in a tsunami zone.
That is a-
that's more of a comment than a question,
but we do want to voice those
so that they are part of the record.
- (inaudible)
(inaudible)
- We have another request for additional-
for elaboration from the public.
The commenter says, I
question your saying
that the canisters are
transportable as is,
please cite your sources that ascertain
that the present canisters with

overpack are transportable.
- Yeah, these licenses,
Holtec has a Part 71 license
for them to be transportable.
So that's why they're called
the multi-purpose canister.
They're both for storage
and transportation.
So there is an NRC approved
transportation license
for these canisters.
I used to know the docket number,
but I'd have to go to
my computer to find it.
- That's good.
- Another question, do you
anticipate that the NRC
will be frequently
monitoring the remaining
spent fuel transfer to
the dry cask storage?
- Yes, I do expect to do that.
I mentioned in my discussion
that we anticipate conducting
frequent inspections, on
the order of several times
a calendar quarter in order
to observe ongoing activities
since it'll be an ongoing
continuous fuel loading,
offloading campaign, sorry.
- I'd like to point out that

the transportation package
has a name and it's
called the HI-STAR system.
And that's Holtec's
transportation overpack.
- Seems like the pace of questions
has slowed down quite a bit.
We want to give a last
opportunity for the attendees
who are viewing the webinar to add
a few last questions and comments.
We're about 10 minutes from the
scheduled end of our discussion.
All right, we have another comment.
That there is no plan
for breached canisters,
as in a backup plan if a
canister were to breach,
is extremely concerning and inadequate.
The thin-walled canisters do
not have a very long lifetime.
Your resistance to use better canisters
can only be explained by not
wanting to pay the higher cost.
Is the public not important to you?
I think we can call that a
comment, as opposed to a question,
but that is for the record.
Oh and we have a request from the public,
would the lady please restate her name?
I missed it at first.
- Yes, I'm Linda Howell.

I'm the Acting Director
of the Region IV Division
of Nuclear Materials Safety.
- With that I think
we're ready to end the-
oh we have a couple
more comments coming in.
Getting that indication.
The NRC approved license for transport,
what is its name?
Semi One and then there's a question mark.
Looking for the name that
we use for that license.
- It's called the HI-STAR system.
is what Holtec's name for it is.
Has a Part 71 docket number,
which is its license.
I don't know if it has
a name other than that.
- Actually it's another
Certificate of Compliance
that's issued for transportation package,
and I'm sure that if the
questioner wanted to find
more information on that, you could
probably go to the NRC public webpage
and actually just do a search on ours,
using the name of the package
and you should be able to
locate information on it.
- All right, and with that
we're going to bring a close

to the public questions
and comments period.
Linda if you have any, Linda or Lee,
if you have any closing remarks.
- Sure, thank you, Austin.
Again, I thank the audience
for participating this afternoon.
We think it's an important
part of our mission
is to be transparent
and keep you informed.
The video and transcript from
this webinar will be posted
to the NRC Spotlight page under
the San Onofre Cask Loading issue portion
of the page along with other documents
that are relevant to the event
and our follow-up activities.
We will be producing an inspection report
on those follow-on inspection activities
that I mentioned during my discussion.
That is probably a few weeks away.
We will continue to
post inspection reports
on the Spotlight page for San Onofre,
when we do the future, as
of yet to be determined,
resumption of fuel transfer operations,
so that we can keep you informed.
And with that, we'll conclude the meeting.
Thank you.