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James Knubel
Senior Vice President and
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September 7, 2000
IPN-00-065

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Subject: Indian Point 3 Nuclear Power Plant
Docket No. 50-286
**Proposed One-Time Change to Technical Specifications
Regarding the Replacement of Station 125VDC Batteries 31 and 32**

Dear Sir:

This application for amendment to the Indian Point 3 Technical Specifications (TS) proposes to amend TS section 3.7.B.4 to allow replacement of Station 125 VDC batteries 31 and 32 while at power. This TS change would be applicable one-time only, for implementation prior to June 2002. Since battery replacement cannot be performed within the 2-hour duration currently allowed by the TS for a unit on-line, the proposed change will provide one-time allowances for Indian Point 3 (IP3) to permit the on-line installation of the new batteries. TS Surveillance Requirements (SR), sections 4.6.B.3 & 4.6.B.4, will also require a revision to allow TS station battery testing to be conducted while not shutdown. An administrative change is also included involving the deletion of an expired one-time LCO statement in TS 3.7.B.1, regarding an Emergency Diesel Generator (EDG) Fuel Oil Storage Tank repair effort.

Station batteries 31 & 32 were installed in May 1992. Both batteries require replacement no later than June 2002. This proposal will extend the Allowed Outage Time (AOT) necessary to support on-line battery replacement. These actions will permit the operation of IP3 for 10 days, while above the cold shutdown condition, with the associated DC bus connected to both the existing safety-related battery charger and a temporary, non-seismic station battery. This arrangement will maintain the associated DC distribution system "available", though not "operable." This temporary battery is expected to meet the safety functions of the existing battery with the exception of seismic, interaction with seismic and vital area requirements. This alignment will be used in the replacement of two station batteries. When the proper conditions are met, as supported by appropriate implementing actions, separate 10-day AOT periods will be utilized for replacement of the 31 and 32 station batteries.

A001

The on-line battery replacement activities are intended to provide operational flexibility and reduce refueling outage duration, while still providing an acceptable level of plant safety. These on-line maintenance activities will not only reduce outage scope, but also result in a safer and better-controlled outage such that outage EDG and Control Rod Drive Motor Generator Set maintenance can be performed free from the encumbrance of battery replacement outage windows.

Both deterministic and Probabilistic Risk Assessment (PRA) reviews were completed for the proposed on-line battery replacements. These reviews helped ensure the specified lineup of the temporary battery supplying the associated DC bus for a maximum of 10 days met acceptable levels of plant safety.

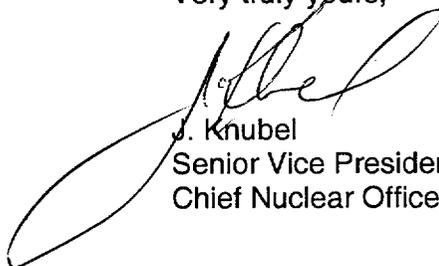
Enclosed for filing is the signed original of the document entitled "Application for Amendment to the Operating License." Attachment I to this application are the proposed one-time changes to the TS. Attachment II is the associated safety evaluation. A markup of the current TS pages showing the proposed changes are provided in Attachment III, for information only. Attachment IV is also provided for information only as a markup of the Improved TS (ITS) submittal, which incorporates the requested changes.

A copy of this letter with the attachment containing the application, proposed changes, safety evaluation and marked up TS pages is being provided to the designated New York State official as required by 10 CFR 50.91.

We request review and approval of this TS amendment by January 15, 2001 in order to support outage scheduling.

This submittal contains no new commitments. If you have any questions, please contact Mr. Ken Peters, IP3 Licensing Manager, at (914) 736-8029.

Very truly yours,

A handwritten signature in black ink, appearing to read 'J. Knubel', is written over a large, stylized, looped flourish that extends to the left and bottom of the signature area.

J. Knubel
Senior Vice President and
Chief Nuclear Officer

Attachments: As stated

cc: See next page

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**BEFORE THE UNITED STATES
NUCLEAR REGULATORY COMMISSION**

In the Matter of)
NEW YORK POWER AUTHORITY) Docket No. 50-286
Indian Point 3 Nuclear Power Plant)

APPLICATION FOR AMENDMENT TO OPERATING LICENSE

The New York Power Authority requests an amendment to the Technical Specifications (TS) contained in Appendix A to Facility Operating License DPR-64 for the Indian Point 3 Nuclear Power Plant. This application is filed in accordance with 10 CFR 50.90 of the Nuclear Regulatory Commission's regulations.

This application for amendment to the Indian Point 3 TS proposes to revise specification 3.7.B.4 and surveillance requirement 4.6.B.3 & 4.6.B.4 to allow replacement of station 125 VDC batteries 31 & 32 while at power. Specifically, this is a one-time TS change to increase station battery allowed outage time (AOT) from 2 hours to 10 days while at power. This change will employ use of a temporary battery connected to the associated DC bus of the qualified Station battery being replaced. This AOT TS change is intended to allow operational flexibility and reduce refueling outage duration, resulting in a more efficiently controlled outage, while providing an acceptable level of plant safety. A one-time, 10-day AOT will be applied for each of the station batteries separately, to replace them prior to June 2002. An administrative change to delete an unrelated, expired, one-time TS section in 3.7.B.1, regarding an Emergency Diesel Generator Fuel Oil Storage Tank is also requested.

The signed original of the Application for Amendment to the Operating License is enclosed for filing. Attachment I includes the proposed changes to the TS pages. The Safety Evaluation for these changes is provided in Attachment II. A markup of the affected TS pages is included in Attachment III for information only. Attachment IV is provided for information only as a markup of the Improved TS submittal.

New York Power Authority



J. Knubel
Senior Vice President and
Chief Nuclear Officer

**STATE OF NEW YORK
COUNTY OF WESTCHESTER**

Subscribed and sworn to before me
this 7th day of Sept., 2000.



EILEEN E. O'CONNOR
Notary Public, State of New York
No. 4991062
Qualified in Westchester County
Commission Expires January 21, 2002

ATTACHMENT I TO IPN-00-065

**PROPOSED CHANGES TO TECHNICAL SPECIFICATION 3.7 & 4.6
REGARDING THE STATION BATTERIES**

LIST OF PAGE CHANGES

Revise Appendix A as follows:

Remove page

3.7-2
3.7-2a
4.6-2

Insert page

3.7-2
3.7-2a
4.6-2

6. Three batteries plus three chargers and the D.C. distribution systems operable.
 7. No more than one 120 volt A.C. Instrument Bus on the backup power supply.
- B. The requirements of 3.7.A may be modified to allow any one of the following power supplies to be inoperable at any one time.
1. One diesel or any diesel fuel oil system or a diesel and its associated fuel oil system may be inoperable for up to 72 hours provided the 138 KV and the 13.8 KV sources of offsite power are available, and the engineered safety features associated with the remaining diesel generator buses are operable. If the inoperable diesel generator became inoperable due to any cause other than preplanned maintenance or testing, then within 24 hours, either:
 - a. Determine by evaluation, that the remaining operable diesel generators are not inoperable due to common-cause failure.

OR

 - b. Verify by testing, that the remaining diesel generators are operable.
 2. The 138 KV or the 13.8 KV sources of power may be inoperable for 48 hours provided the three diesel generators are operable. This operation may be extended beyond 48 hours provided the failure is reported to the NRC within the 48 hour period with an outline of the plans for restoration of offsite power and NRC approval is granted.

3. If the 138 KV power source is lost and the 13.8KV power source is being used to feed Buses 5 and 6, in addition to satisfying the requirements of specification 3.7.B.2 above, the 6.9 KV bus tie breaker control switches 1-5, 2-5, 3-6, and 4-6 in the CCR shall be placed in the "pull-out" position to prevent an automatic transfer of the 6.9 KV buses 1, 2, 3 and 4.
4. One battery may be inoperable for 2 hours* provided the other batteries and the three battery chargers remain operable with one battery charger carrying the D.C. load of the failed battery supply system.

* On a one-time (per battery) only basis for station batteries 31 & 32, the batteries may be inoperable for up to 10 days each, as necessary, to allow on-line replacement of the batteries. The time period during which this allowance may be exercised will end on May 31, 2002. The following additional requirement shall also be met to invoke this extended one-time allowed outage time: No risk significant planned maintenance or testing activities, which may impact AC or DC normal or emergency electrical distribution sources or ESF systems, shall be performed during this replacement period.

3.7-2a

Amendment No. 34, 54

4. Each diesel generator shall be inspected and maintained following the manufacturer's recommendations for this class of stand-by service.

The above tests will be considered satisfactory if the required minimum safeguards equipment operates as designed.

B. Station Batteries

1. Every month the voltage of each cell, the specific gravity and temperature of a pilot cell in each battery and each battery voltage shall be measured and recorded.
2. Every 3 months each battery shall be subjected to a 24 hour equalizing charge, and the specific gravity of each cell, the temperature reading of every fifth cell, the height of electrolyte, and the amount of water added shall be measured and recorded.
3. At least once per 24 months, during shutdown*, each battery shall be subjected to a service test and a visual inspection of the plates.¹
4. At least once per 60 months, during shutdown*, each battery shall be subjected to a performance discharge (or modified performance discharge) test.^{1,2} This test shall verify that the battery capacity is at least 80% of the manufacturer's rating.
5. Any battery which is demonstrated to have less than 90% of the manufacturer's rating or, whose capacity drops more than 10% of rated capacity from its previous performance discharge (or modified performance discharge) test, shall be subjected to a performance discharge (or modified performance discharge) test annually, during shutdown, until the battery is replaced.

Basis

The tests specified are designed to demonstrate that the diesel generators will provide power for operation of equipment. They also assure that the emergency generator system controls and the control systems for the safeguards equipment will function automatically in the event of a loss of all normal 480v AC station service power. During the simulated loss of power/safety injection system test of specification 4.6.A.3, certain safeguards valves will be closed and made inoperable, to prevent Safety Injection flow to the core.

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1. A modified performance discharge test may be performed in lieu of the battery service test every other 24 month operating cycle.
 2. The first time a performance discharge (or modified performance discharge test) will be performed will be in refueling outage 10/11.

* This battery surveillance may be performed on a one-time only basis during replacement of station batteries 31 and 32 when the unit is not shutdown in order to support the one-time allowed outage time change of 10 days, as indicated in section 3.7.B.4. This testing shall be done when the battery is disconnected from the DC bus.

ATTACHMENT II TO IPN-00-065

**SAFETY EVALUATION OF THE
PROPOSED CHANGES TO TECHNICAL SPECIFICATION 3.7 & 4.6
REGARDING THE STATION BATTERIES**

NEW YORK POWER AUTHORITY
INDIAN POINT 3 NUCLEAR POWER PLANT
DOCKET NO. 50-286
DPR-64

SAFETY EVALUATION STATION BATTERY REPLACEMENT ALLOWED OUTAGE TIME

I. DESCRIPTION OF PROPOSED CHANGES

This application proposes an amendment to the Indian Point 3 (IP3) Technical Specifications (TS) to revise TS Limiting Condition for Operation (LCO) 3.7.B.4. This amendment provides a one-time 10-day allowed outage time (AOT) for the purpose of replacement of the 31 and 32 station batteries while above the cold shutdown condition (with the unit on-line) prior to June 2002. A temporary battery will be connected to the 31 or 32 125 VDC bus during this replacement activity. There will be one 10-day AOT for the 31 battery during replacement and a separate 10-day AOT for the 32 battery replacement.

TS LCO 3.7.B.4 presently allows 2 hours for one station battery to be inoperable when above cold shutdown "provided the other batteries and the three battery chargers remain operable with one battery charger carrying the D.C. load of the failed battery supply system." Several implementing actions and conditions will be in effect to support this 10-day AOT period. These take into account the PRA analysis and minimize risk associated with occurrence of a seismic event, which is bounding for other events, causing a loss of offsite power sources.

These include:

- (1) The existing safety related battery charger associated with the replaced station battery is operable and connected to the DC bus in parallel with the temporary battery, as required by TS;
- (2) The temporary and replacement batteries will be subjected to the applicable station battery surveillance tests before placing them into service;
- (3) The plant is in a stable condition with no Required Actions in effect at the start of the battery replacement activity necessitating plant shutdown AND no risk significant, planned maintenance or testing activities (which may impact AC or DC normal or emergency electrical distribution sources or ESF systems) performed during the replacement period;
- (4) No entry conditions into OD-8, Guidelines for Severe Weather, reasonably expected during the replacement period;
- (5) Verification of operating crews training on ECA-0.0, "Loss of All AC Power", and associated procedures involving operation of a single EDG on a single service water pump;
- (6) Back-up battery charger 35 available to be connected to the DC bus that the temporary battery supplies;
- (7) The temporary battery paralleled onto the DC bus with the station battery prior to disconnecting or reconnecting the station battery;
- (8) The Instrument Bus Static Inverters have their respective Maintenance Bypass Switches in the "Inverter" position for the duration of the time the temporary battery is the sole supply of the associated DC bus;
- (9) The Appendix "R" D/G is available during the AOT period; AND
- (10) Appropriate security arrangements in place to support use of the temporary battery when it is connected to the associated DC bus.

There are also changes required for the associated station battery TS Surveillance Requirements (SRs) 4.6.B. 3 & 4.6.B.4. These SRs must be able to be completed while the unit is on-line to ensure the necessary battery test criteria is met prior to completing battery installation and exiting the 10-day AOT LCO. These SRs will be conducted as necessary for each battery while they are disconnected from the respective DC bus.

An administrative change also included with this request involves the deletion of an expired, one-time TS change associated with LCO 3.7.B.1 regarding 32 Emergency Diesel Generator Fuel Oil Storage Tank repairs.

II. PURPOSE OF PROPOSED CHANGE

Station batteries 31 and 32 are scheduled for replacement no later than June 2002. These replacements have historically been accomplished during plant outages. Performance of these two one-time battery replacements with the unit at power gives IP3 the opportunity to more efficiently control concurrent work activities. The ability to more closely control this type of maintenance is not available to the degree desired with the unit in an outage due to the controlled scope of work activities scheduled to be completed. During replacement of the 31 and 32 station batteries, IP3 will capitalize on having a larger number of plant personnel available to perform the installation and testing work. The on-line replacement also provides several scheduling and economic advantages over performing the activity during an outage. For example, the narrow window of opportunity to perform battery replacement during the outage would probably only be scheduled to occur while the respective EDG is inoperable for its 8-year planned maintenance (PM). This PM has been scheduled in the outage for 5 days, while the battery replacement could take up to 10 days. Also, the close proximity of outage work such as Control Rod Drive Motor Generator set maintenance to the battery replacement effort, which is labor intensive, could have a negative impact on this battery work. This 10-day AOT battery replacement activity, while above cold shutdown conditions, has been reviewed by NYPA (the Authority) personnel. No significant safety consequences have been found associated with performing the proposed activities in the manner proposed while the unit is at power. Several implementing actions and conditions are being utilized to ensure risk minimization during these battery replacement periods.

III. SAFETY IMPLICATION OF PROPOSED CHANGES

Current IP3 TS do not allow the unit to be operated for more than 2 hours with an inoperable station battery on a DC bus. This change will extend the TS 3.7.B.4 AOT to 10 days, on a one-time only basis, for purposes of restoration of the battery and the associated DC bus to operable status. This change is needed in order to allow the option of on-line replacement of both the 31 and 32 station batteries and avoid performance of this maintenance during the upcoming refueling outage. As these battery replacements are required no later than June 2002, this maintenance would be performed either prior to or after the planned refueling outage R-11, scheduled to start in May 2001.

The IP3 electrical distribution system (EDS) is designed to supply power to both safety related and non-safety related equipment and components that require DC power for operation and control. Operation of the 125 VDC EDS is required during normal operating conditions such as start-up, power operations and shutdown as well as during design basis accidents (DBAs), including a Loss of Coolant Accident (LOCA), a Loss of All AC Power and following a Loss of Offsite Power (LOOP). Consistent with 10 CFR 50, Appendix A, General Design Criteria (GDC) 17, the IP3 125 VDC EDS is designed to have sufficient independence, redundancy and testability to perform its safety functions, assuming a single failure. The 125 VDC EDS is also consistent with the recommendations of Regulatory Guide 1.6 and IEEE-308.

The 125 VDC EDS (see attached simplified diagram) consists of four independent, safety-related DC electrical power subsystems (31, 32, 33 and 34). Each subsystem consists of one 125 VDC battery, the associated battery charger for each battery and all associated control equipment and interconnecting cabling. The battery chargers are the normal power source to the DC loads. The battery chargers also maintain the proper charge on the station batteries. One battery charger is available to each station battery so that these batteries are maintained at full charge, as an emergency power source, in anticipation of a LOOP event with loss of normal power to the battery charger. This is accomplished by adjusting battery charger output voltage to a value slightly greater than battery voltage, with the batteries "floating" on the system. This ensures that adequate DC power is available for starting the Emergency Diesel Generators (EDGs) and other emergency uses. The station batteries are sized to carry expected shutdown loads for a period of 2 hours without battery terminal voltage falling below the minimum required voltage following a loss of AC power event. Battery chargers 31, 32, 33 and 34 are relied upon to support the continued operation of systems and components required to either mitigate the consequences of a DBA or provide post-accident monitoring subsequent to depletion of station batteries 31, 32, 33 or 34. In addition to supplying power to DC equipment, all four DC distribution subsystems supply reliable power to the 118 VAC instrument buses via static inverters. The 118 VAC buses provide power to reactor protection system (RPS) and safeguards equipment as well as to vital plant instrumentation. The use of static inverters provide a highly reliable source of power since the station batteries are available to assume the DC loads if the battery chargers fail.

The four 125 VDC electrical power subsystems 31, 32, 33 and 34 feed four main DC distribution power panels. DC electrical power subsystems 31, 32 and 33 supply DC control power to three ESF buses (480 VAC buses 5A, 6A and 2A/3A respectively). The 480 VAC switchgear bus sections that supply power to the safeguards equipment also receive DC control power from the associated 125 VDC electrical power subsystem. 125 VDC electrical power subsystem 34 does not provide DC control power to any equipment assumed to function to mitigate an accident.

The existing 31 and 32 station batteries, type Exide GC-33, will be replaced with sufficient qualified cells. In order to facilitate this on-line replacement, a temporary battery will be installed while each of the 31 and 32 station batteries are replaced during these separate planned 10-day AOT periods. The temporary battery used for the first battery replacement effort will serve as the actual replacement for the second battery. The temporary battery used during the second battery replacement will be the existing Exide GC-33 type removed during the first battery replacement. During these AOT periods the temporary battery, along with the associated, installed safety-related battery charger will be used to supply the respective DC bus. Both of these temporary batteries will possess adequate capacity to fulfill the requirements of supplying power to the respective DC bus. Since a suitable location could not be found which would support the temporary batteries in the Control Building, near the existing batteries, the temporary batteries will be located on 53-ft elevation of the Turbine Building. For each replacement activity, the only expected difference in performance between the temporary battery and the existing qualified station battery is that the temporary battery will not meet seismic or seismic interaction design requirements, as it will be located in the non-seismic Turbine Building. Therefore the replacement battery would not be considered OPERABLE and a 10-day AOT is required to allow continued operation of the unit during required battery replacement and testing activities. During this configuration, all other aspects of the 125 VDC EDS will be in accordance with the current plant design basis. A loss of the respective 125 VDC bus may be postulated during a seismic event or a seismic interaction event. However, the remaining DC subsystems would be unaffected, permitting safe shutdown of the plant if required. This is in accordance with current single-failure plant design criteria.

The proposed one-time TS amendment will not prevent IP3 from responding to an analyzed DBA event. During this 10-day AOT period, the ability of the respective 125 VDC subdivision to mitigate an event or an accident is basically unchanged except for its ability to cope with a seismic event or other event in the turbine building. The design basis of the 125 VDC EDS includes sufficient redundancy to perform its required safety functions, assuming a single failure. Should a seismic event cause a loss of offsite power, rendering a single ESF train unavailable (480 VAC Bus 5A or Bus 6A), the remaining two ESF trains along with their respective 125 VDC buses are designed to ensure safe shutdown of the facility. While in the 10-day AOT LCO for this battery replacement activity, no further single failure need be assumed associated with either of the other two ESF trains. Also, the temporary battery, being located in the south end of the 53-ft elevation of the Turbine Building, is not susceptible to a turbine blade failure event, nor a flooding event. Appendix 14A of the FSAR concludes with reasonable assurance that a missile would not be generated external to the low-pressure turbine casing. Due to the location of the main generator in relation to the temporary battery, a turbine blade failure that penetrated the low-pressure casing is not likely to strike the battery. A main steam line break outside the Vapor Containment (VC) of the unit would be terminated by the closure of the Main Steam Isolation Valves leaving intact the replacement battery and its associated 125 VDC bus. The temporary battery will be physically located away from the high-energy steam lines.

A review of other TS LCO sections potentially impacted by this one-time change determined that there are no other TS sections that require revision in connection with this battery replacement. The associated EDG will be considered operable during this battery replacement effort. This is because of application of TS 3.7.G., the cascading electrical specification. This TS LCO provides that a system, subsystem, train, component or device may be considered operable when its emergency OR its normal power supply is inoperable AND two conditions are met. These conditions are that the corresponding normal OR emergency power supply is operable AND all of the redundant systems, subsystems, trains, components and devices are operable. The EDG associated with the battery replacement effort requires DC control power from the associated DC bus for its starting sequence. During replacement, the battery (the emergency power source for DC control power to the EDG) is inoperable and a temporary battery is connected to the DC bus. The normal power source for DC control power to the EDG is expected to be operable during this replacement. This normal power source is supplied by offsite power to the 6.9KV bus through the 480VAC bus to the associated battery charger supplying the DC bus. Thus, the associated EDG remains operable during this station battery replacement effort, as long as TS 3.7.G requirements are met. Also, for those potential situations where an unplanned loss of a piece of ESF equipment occurs while in this AOT period for battery replacement, a separate (ESF equipment related) LCO entry does not prevent continued battery replacement activities, unless DC control power to the associated EDG is impacted.

A Probabilistic Risk Assessment (PRA) evaluation was also performed concerning this battery replacement and required extended LCO battery AOT period. The major concern addressed was the core damage vulnerability of the plant given a seismic event while in the replacement battery configuration with a non-safety battery rack. From the IP3 IPEEE seismic analysis, the frequency of a 0.05g earthquake is 1.4E-3 per year. It was assumed that offsite power and the temporary battery would fail as a result of this seismic event. This makes the associated ESF train EDG unavailable, either EDG 33 or EDG 32. The most probable scenario was a seismically induced turbine trip transient. Quantification of the IP3 IPE model using the seismic initiating event yields the following result:

Station Battery Replacement	Increase in Core Damage Frequency (CDF) from Base (per year)	Duration (days)	Conditional Core Damage Probability (CCDP)
31	1.00 E -4	10	2.74 E -6
32	9.50 E -5	10	2.60 E -6

The Conditional Core Damage Probability (CCDP) is greater than 1.0 E^{-6} . However, credit can be applied for a CCDP in the range between 1.0 E^{-6} and 1.0 E^{-5} as addressed in EPRI TR-105396, "EPRI PSA Applications Guide" of August 1995. A review of the minimal cutsets for both battery replacements show that station blackout predominates arising from the random failure of one EDG coupled with the failure of a second EDG due to the loss of the replacement battery and a single essential service water pump being available. The IPE models essential service water success as 2-out-of-3 pumps. Therefore, the remaining EDG fails due to insufficient jacket cooling. However, Attachment 1 of IP3 Emergency Operating Procedure (EOP) ECA-0.0, "Loss of All AC Power", revision 13, addresses single essential service water pump operation. By applying a conservative factor of 0.1 for failure to properly align the essential service water header under these conditions, the Core Damage Frequency (CDF) and the CCDP for each battery replacement period is reduced by one order of magnitude to below 1.0 E^{-4} per year and 1.0 E^{-6} , respectively.

Thus, one of the implementing actions for invoking this one-time TS change is that operator crew training be verified to include EOP-ECA-0.0 and associated procedures for operating a single EDG on a single service water pump. This PRA evaluation also recommended several work-practice-implementing actions that will provide additional confidence of continued replacement battery functionality. These include such issues as no significant planned maintenance and testing activities be performed during the replacement period, operator training having been completed on EOP ECA-0.0, etc.

In addition, the proposed location of the battery and predicted hydrogen generation have been reviewed and determined to be acceptable.

The IP3 TS Surveillance Requirements (SRs) associated with the replacement station batteries were also reviewed in relation to this one-time TS AOT change. The appropriate SRs, included in TS 4.6.B, will be performed while the unit is on-line. These include a battery service test and a performance discharge test, as required. Since these TS SR's indicate performance of these tests is allowed only "during shutdown", a one-time TS change is also required to allow appropriate replacement battery testing while the unit is not shutdown. The testing requirement of "during shutdown" is meant to preclude possible plant perturbations. The applicable battery SR testing will be done without the battery being connected to the DC bus.

Finally, the administrative change to delete a one-time TS in section 3.7.B.1 involving an EDG Fuel Oil Storage Tank repair effort prior to Refueling Outage RO-10 is justified. The window for utilizing this TS amendment has expired. This minor change has no impact on any other TS sections.

IV. EVALUATION OF SIGNIFICANT HAZARDS CONSIDERATION

The Authority has evaluated the proposed Technical Specification change using the criteria of 10 CFR50.92 and found that no significant hazards consideration exists for the following reasons:

1) Does the proposed License amendment involve a significant increase in the probability or consequences of an accident previously evaluated?

No. The proposed AOT extension does not involve a significant increase in the probability or consequences of an accident previously evaluated. During the replacement of the existing station batteries, a temporary battery will provide the same function as the Exide batteries being removed. Even though this temporary battery will not meet seismic, seismic interaction or security requirements, due to its location on the 53-ft elevation of the Turbine Building, it is qualified as safety related in all other respects. The 125 VDC EDS is normally supplied by the associated 480 VAC bus through a Battery Charger. The essential function of 31, 32 and 33 station battery is to supply DC control power necessary to start and load the associated EDG. Once the EDGs are on line, the 125 VDC EDS will be supplied via the battery charger. However, the station batteries have been sized to carry shutdown loads for a period of two hours without battery terminal voltage falling below its minimum required voltage following a plant trip that includes a loss of all AC power. This provides additional assurance that the critical DC loads are available in the event of a loss of the battery charger. During the 10-day AOT, when the temporary battery and the associated battery charger are supporting the 125 VDC bus, the ability of that ESF DC power panel to mitigate an event/accident remains unchanged except for its ability to cope with a seismic, seismic interaction or security event. However, the probability of these types of events concurrent with the 10-day AOT is very small. During these types of events, one ESF DC power panel may be compromised, however IP3 has adequate 125 VDC power available in the form of two other ESF train DC power panels to mitigate all DBAs. The postulated loss of one ESF DC power panel is bounded by the loss of an entire ESF electrical train, a condition which the plant is currently evaluated to withstand. Based upon the above, the overall design, function and operation of the 125VDC EDS and equipment has not been significantly modified by the proposed changes. The proposed changes do not affect accident initiators or precursors, nor do they alter the design assumptions for the systems or components used to mitigate the consequences of an accident as analyzed in Chapter 14 of the IP3 USFAR, except for one of the three trains of DC power. The remaining DC power trains can mitigate a DBA. Therefore, the proposed one-time AOT extension TS amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2) Does the proposed License Amendment create the possibility of a new or different kind of accident from any accident previously evaluated?

No. During the replacement of the existing station batteries, a temporary battery will provide the same function as the batteries being removed. Even though this temporary battery does not meet all design requirements of a seismic, seismic interaction or security event it possesses adequate capacity to fulfill the safety related requirements of supplying necessary power to the associated 125 VDC bus under most conditions. Because the temporary battery will perform like the station battery that is currently installed, and will be connected and used in the same way as a backup power supply to the DC bus, no new electrical or functional failure modes are created. The temporary battery will be located in the turbine building, which is non-seismic and a non-vital area. The temporary battery will not be placed into seismically mounted racks. Thus, a seismic failure of this temporary battery is possible. Since the temporary battery is located in the turbine building the potential for battery failure to initiate an accident is not present. The failure of the temporary battery can not create a different response from any previously postulated accident. Due to the location of the main turbine-generator in relationship to the temporary battery, it is not likely that a turbine missile would strike the battery. Likewise, an unmitigated Steam Line Break accident outside the VC would be interrupted by successful closure of all MSIVs thereby leaving the battery and the associated DC bus intact and available. This MSIV closure would occur before any potential steam line break impacting the battery on the Turbine deck ensuring necessary DC power to the MSIVs when needed. Also, any affects of postulated severe weather on the turbine building have been evaluated and do not impede the ability of the remaining DC subsystems to perform their intended safety function. The remaining 125 VDC EDS and its equipment will continue to perform the same function and be operated in the same fashion. The proposed changes do not introduce any new accident initiators or precursors, or any new design assumptions for those systems or components used to mitigate the consequences of an accident. Therefore, the possibility of a new or different kind of accident from any previously evaluated has not been created. Thus, the proposed one-time AOT extension TS amendment does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3) Does the proposed License Amendment involve a significant reduction in a margin of safety?

No. During the replacement of the existing station batteries, a temporary safety related battery will perform the same function as the battery being removed. Even though this battery is not seismically mounted, not in a seismically qualified building, nor in a vital area of the plant it is qualified as a safety related battery in all other respects.

This battery is virtually identical to the safety related station battery that is already installed. It possesses adequate capacity to fulfill the requirements of the associated 125 VDC bus. The proposed replacement activity will not prevent the plant from mitigating a DBA during events that result in the loss of the temporary battery. In these cases, the remaining DC power supporting the design mitigation capability will be maintained. Due to the limited duration of the activity, the very low probability of a seismic or other seismic interaction event over this limited AOT period and the planned implementing contingency actions, a significant reduction in the margin of safety will not result. The associated DC bus will always be supplied with both a temporary battery and a battery charger at all times. The inherent design conservatism of the 125 VDC system and its equipment has not been significantly altered; only the degree of redundancy is not fully qualified. The 125 VDC EDS and its equipment will continue to be operated with the same degree of conservatism. Accordingly, there is no significant reduction in the margin of safety.

Therefore, based upon the above evaluation, the Authority has concluded that these changes involve no significant hazards consideration.

V. IMPLEMENTATION OF THE PROPOSED CHANGES

The Authority has evaluated this proposed one-time TS amendment request against the criteria for identification of licensing and regulatory actions requiring environmental assessment in accordance with 10 CFR 51.21. The Authority has determined that this proposed amendment request meets the eligibility criteria for a categorical exclusion set forth in 10 CFR 51.22 (c)(9) as follows:

(i) **The amendment involves no significant hazards consideration.**

As demonstrated in Section IV of this Safety Evaluation, the proposed TS change involves no significant hazards consideration.

(ii) **There is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite.**

The proposed change will not result in changes in the operation or configuration of the facility. There will be no change in the level of controls or methodology used for processing of radioactive effluents or the handling of solid radioactive waste; nor will the proposal result in any change in the normal radiation levels within the plant. Therefore, there will be no change in the types or significant increase in the amounts of any effluents released offsite resulting from this TS change.

- (iii) **There is no significant increase in individual or cumulative occupational radiation exposure.**

The proposed changes will not result in changes to the operation or configuration of the facility which impact radiation exposure. There will be no change in the level of controls or methodology used for processing of radioactive effluents or handling of solid radioactive waste, nor will the proposal result in any change in the normal radiation levels within the plant. Therefore, there will be no increase in individual or cumulative radiation exposure resulting from this TS change.

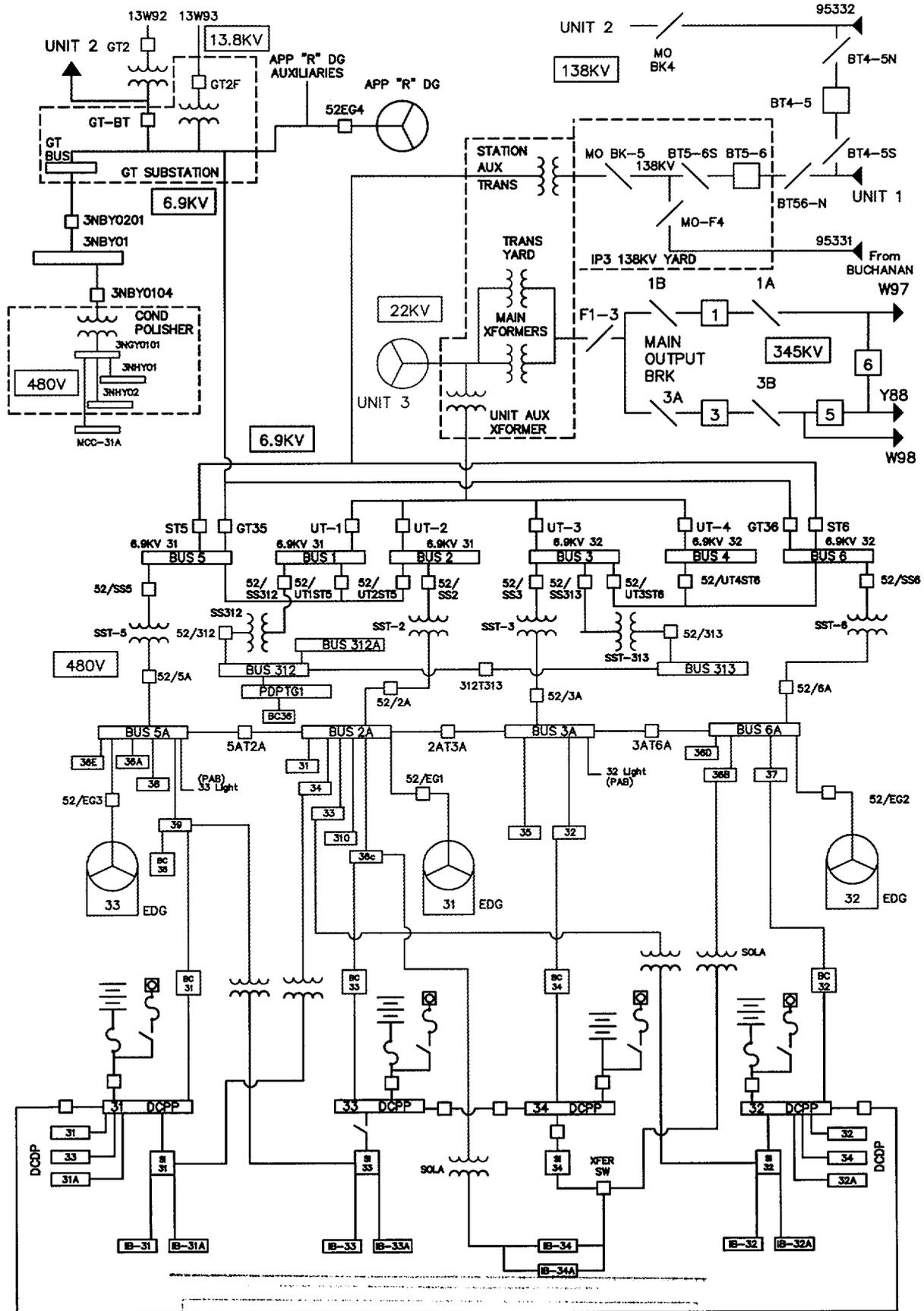
VI. CONCLUSION

The proposed changes will ensure mitigation of an accident or transient event, even though one DC power train will not be qualified for a short period of time with the unit on-line. These changes will not adversely affect normal plant operation and testing. The proposed changes do not change the end results of the safety analysis because the remaining DC power trains ensure mitigation of the accidents or transients. The Plant Operating review Committee (PORC) and the Safety Review Committee (SRC) have reviewed this proposed one-time TS amendment and have concluded that it does not involve a significant hazards consideration and will not endanger the health and safety of the public.

VII. REFERENCES

1. Indian Point 3 Updated Final Safety Analysis Report (FSAR), Chapters 1, 8 & 14.
2. Regulatory Guide 1.93, "Availability of Electric Power Sources", dated October 1974.
3. Indian Point 3 Design Basis Document for the 480VAC, 125VDC, 120 Vital AC Electrical Distribution Systems (IP3-DBD-307), Revision 2, dated February 19, 1998.
4. Westinghouse Standard Technical Specifications, NUREG-1431, Revision 1, April 7, 1995.
5. Regulatory Guide 1.6, "Independence Between Redundant Standby (Onsite) Power Sources and Between Their Distribution Systems", dated March 10, 1971.
6. IP3 Emergency Operating Procedure (EOP) ECA-0.0, "Loss of All AC Power", revision 13, dated June 19, 2000.
7. IP3 System Operating Procedure (SOP) SOP-EL-3, "Battery Charger and 125 Volt DC System Operations", Revision 23, dated March 8, 2000.
8. IP3 Operations Directive (OD) Procedure OD-8, "Guidelines for Severe Weather", Revision 10, dated July 10, 2000.

IP-3 ELECTRICAL DISTRIBUTION



INFORMATION ONLY

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ATTACHMENT III TO IPN-00-065

**MARK-UP OF TECHNICAL SPECIFICATION PAGES
FOR THE PROPOSED CHANGES TO TECHNICAL SPECIFICATION 3.7 &
4.6 REGARDING THE STATION BATTERIES**

**NEW YORK POWER AUTHORITY
INDIAN POINT 3 NUCLEAR POWER PLANT
DOCKET NO 50-286
DPR-64**

6. Three batteries plus three chargers and the D.C. distribution systems operable.
7. No more than one 120 volt A.C. Instrument Bus on the backup power supply.
- B. The requirements of 3.7.A may be modified to allow any one of the following power supplies to be inoperable at any one time.
1. One diesel or any diesel fuel oil system or a diesel and its associated fuel oil system may be inoperable for up to 72 hours provided the 138 KV and the 13.8 KV sources of offsite power are available, and the engineered safety features associated with the remaining diesel generator buses are operable. If the inoperable diesel generator became inoperable due to any cause other than preplanned maintenance or testing, then within 24 hours, either:
 - a. Determine by evaluation, that the remaining operable diesel generators are not inoperable due to common-cause failure.

OR

- b. Verify by testing, that the remaining diesel generators are operable.
2. The 138 KV or the 13.8 KV sources of power may be inoperable for 48 hours provided the three diesel generators are operable. This operation may be extended beyond 48 hours provided the failure is reported to the NRC within the 48 hour period with an outline of the plans for restoration of offsite power and NRC approval is granted.

~~* 32 diesel generator fuel oil storage tank may be inoperable and the 32 diesel generator may be declared technically inoperable, but available and capable of automatic start, for up to 7 days, one-time if needed, during 1999 and prior to Refueling Outage RO-10. This condition may only be invoked to inspect/repair the 32 diesel fuel oil storage tank if deemed necessary based on concerns with water in-leakage. The following additional requirements shall also be met to invoke this extended one-time allowed outage time: (1) performance of offsite power source switching or maintenance evolutions for technical specification required offsite power sources shall not be scheduled during this 32 FOST outage, and (2) this 32 FOST outage shall not be scheduled during predicted severe weather.~~

3.7-2

Amendment No. ~~34, 54, 132, 187, 190, 198~~

3. If the 138 KV power source is lost and the 13.8KV power source is being used to feed Buses 5 and 6, in addition to satisfying the requirements of specification 3.7.B.2 above, the 6.9 KV bus tie breaker control switches 1-5, 2-5, 3-6, and 4-6 in the CCR shall be placed in the "pull-out" position to prevent an automatic transfer of the 6.9 KV buses 1, 2, 3 and 4.
4. One battery may be inoperable for 2 hours^{*} provided the other batteries and the three battery chargers remain operable with one battery charger carrying the D.C. load of the failed battery supply system.

* On a one-time (per battery) only basis for station batteries 31 + 32, the batteries may be inoperable for up to 10 days each, as necessary, to allow on-line replacement of the batteries. The time period during which this allowance may be exercised will end on May 31, 2002. The following additional requirement shall also be met to involve this extended one-time allowed outage time: No risk significant planned maintenance or testing activities, which may impact AC or DC normal or emergency electrical distribution sources or ESF systems, shall be performed during this replacement period.

3.7-2a

Amendment No. 34, §4

4. Each diesel generator shall be inspected and maintained following the manufacturer's recommendations for this class of stand-by service.

The above tests will be considered satisfactory if the required minimum safeguards equipment operates as designed.

B. Station Batteries

1. Every month the voltage of each cell, the specific gravity and temperature of a pilot cell in each battery and each battery voltage shall be measured and recorded.
2. Every 3 months each battery shall be subjected to a 24 hour equalizing charge, and the specific gravity of each cell, the temperature reading of every fifth cell, the height of electrolyte, and the amount of water added shall be measured and recorded.
3. At least once per 24 months, during shutdown*, each battery shall be subjected to a service test and a visual inspection of the plates.¹
4. At least once per 60 months, during shutdown*, each battery shall be subjected to a performance discharge (or modified performance discharge) test.^{1,2} This test shall verify that the battery capacity is at least 80% of the manufacturer's rating.
5. Any battery which is demonstrated to have less than 90% of the manufacturer's rating or, whose capacity drops more than 10% of rated capacity from its previous performance discharge (or modified performance discharge) test, shall be subjected to a performance discharge (or modified performance discharge) test annually, during shutdown, until the battery is replaced.

Basis

The tests specified are designed to demonstrate that the diesel generators will provide power for operation of equipment. They also assure that the emergency generator system controls and the control systems for the safeguards equipment will function automatically in the event of a loss of all normal 480v AC station service power. During the simulated loss of power/safety injection system test of specification 4.6.A.3, certain safeguards valves will be closed and made inoperable, to prevent Safety Injection flow to the core.

1. A modified performance discharge test may be performed in lieu of the battery service test every other 24 month operating cycle.
2. The first time a performance discharge (or modified performance discharge test) will be performed will be in refueling outage 10/11.

4.6-2

Amendment No. 123, 142, 155

*This battery surveillance may be performed on a one-time only basis during replacement of station batteries 31 and 32 when the unit is not shutdown in order to support the one-time allowed outage time change of 10 days as indicated in section 3.7.B.4. This testing shall be done when the battery is disconnected from the DC bus.

ATTACHMENT IV TO IPN-00-065

MARK-UP OF IMPROVED TECHNICAL SPECIFICATION PAGES

SECTION 3.8.4

RELATED TO THE PROPOSED CHANGES TO TECHNICAL

SPECIFICATION 3.7 & 4.6

REGARDING THE STATION BATTERIES

**NEW YORK POWER AUTHORITY
INDIAN POINT 3 NUCLEAR POWER PLANT
DOCKET NO. 50-286
DPR-64**

3.8 ELECTRICAL POWER SYSTEMS

3.8.4 DC Sources – Operating

LCO 3.8.4 The following four DC electrical power subsystems shall be OPERABLE:

- Battery 31 and associated Battery Charger;
- Battery 32 and associated Battery Charger;
- Battery 33 and associated Battery Charger; and
- Battery 34.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. DC electrical power subsystem 34 inoperable.	A.1 Declare Inverter 34 inoperable and take Required Actions specified in LCO 3.8.7, Inverters-Operating.	2 hours
B. One DC electrical power subsystem (31 or 32 or 33) inoperable.	B.1 Restore DC electrical power subsystem to OPERABLE status.	2 hours*
C. Required Action and Associated Completion Time not met.	C.1 Be in MODE 3.	6 hours
	<u>AND</u> C.2 Be in MODE 5.	36 hours

* (See attached next page)

LCO 3.8.4. B. COMPLETION TIME (cont.)

* On a one-time (per battery) only basis for station batteries 31 + 32, the batteries may be inoperable for up to 10 days each, as necessary, to allow on-line replacement of the batteries. The time period during which this allowance may be exercised will end on May 31, 2002. The following additional requirement shall also be met to invoke this extended one-time allowed outage time: No risk significant planned maintenance or testing activities, which may impact AC or DC normal or emergency distribution sources or ESF systems, shall be performed during this replacement period.

3.8.4-1a

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>SR 3.8.4.1 Verify battery terminal voltage on float charge is within the following limits:</p> <p> a. ≥ 120.06 V for batteries 31 and 32; and</p> <p> b. ≥ 124.20 V for batteries 33 and 34.</p>	<p>31 days</p>
<p>SR 3.8.4.2 -----NOTE-----</p> <p> This Surveillance shall not be performed in MODE 1, 2, 3, or 4.</p> <p> -----</p> <p> Verify each battery charger supplies its associated battery at the voltage and current adequate to demonstrate battery charger capability requirements are met.</p>	<p>24 months</p>
<p>SR 3.8.4.3 -----NOTES-----</p> <p> This Surveillance shall not be performed in MODE 1, 2, 3, or 4. *</p> <p> -----</p> <p> Verify battery capacity is adequate to supply, and maintain in OPERABLE status, the required emergency loads for the design duty cycle when subjected to a battery service test or a modified performance discharge test.</p>	<p>24 months</p>

(continued)

* This battery surveillance may be performed on a one-time only basis during replacement of station batteries 31 and 32 when the unit is in mode 1, 2, 3, or 4 in order to support the one-time allowed outage time change of 10 days, as indicated in section 3.8.4.B. This testing shall be done when the battery is disconnected from the

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE	FREQUENCY
<p>SR 3.8.4.4 -----NOTE----- This Surveillance shall not be performed in MODE 1, 2, 3, or 4. *</p> <p>-----</p> <p>Verify battery capacity is $\geq 80\%$ of the manufacturer's rating when subjected to a performance discharge test or a modified performance discharge test.</p>	<p>60 months</p> <p><u>AND</u></p> <p>12 months when battery shows degradation or has reached 85% of expected life with capacity < 100% of manufacturer's rating</p> <p><u>AND</u></p> <p>24 months when battery has reached 85% of the expected life with capacity $\geq 100\%$ of manufacturer's rating</p>

* This battery surveillance may be performed on a one-time only basis during replacement of station batteries 31 and 32 when the unit is in mode 1, 2, 3, or 4 in order to support the one-time allowed outage time change of 10 days, as indicated in section 3.8.4.B. This testing shall be done when the battery is disconnected from the DC bus.