Request for Confidentiality
of Material Submitted in Relation to

Application to amend the licensing basis for Bruce A and B NGS to increase reactor power limits CMD: 26-H104

This form supports the Directive on Requesting Confidentiality. Review the Directive for important information about completing this form and the documents that must be submitted with it.

The completed form and attachments **must be submitted to** the Commission Registrar.

With regard to:
Application to amend the licensing basis for Bruce A and B NGS to increase reactor power limits

I, Lisa Clarke, am an authorized representative of **Bruce Power**. I understand that:

- material provided to the Canadian Nuclear Safety Commission ("the Commission") as part of a public hearing will be made publicly available unless the Commission makes a decision to protect it; and
- regardless of any request for confidentiality and decision by the Commission, the material may be disclosed if the Commission is required by law to disclose it (for example, after a request under the Access to Information Act).

I hereby request that the Commission take measures to prohibit the publication and disclosure of the following information under rule 12 of the Canadian Nuclear Safety Commission Rules of Procedure (the Rules).

NOTE 1: Any additional protective measures being requested must be identified in a letter attached to this form.

Material for which a request for confidentiality is submitted:

The material that is subject to this request for confidentiality is clearly identified in Table 1, below.

NOTE 2: Where the request for confidentiality applies only to part of a document, relevant portions must be clearly identified "CONFIDENTIAL" to distinguish them from content that is non-confidential.

NOTE 3: The Commission is not responsible for any copyright infringement due to its publication on the CNSC website of documents that have been written by a third party.

Table 1: Material subject to the request for Confidentiality

	Item Name	Portion(s) covered by the Request for Confidentiality	Applicable Criteria Check all that apply	Rationale Explain how the criteria in Rule 12 applies and how the summary or redacted version satisfies the public interest
1.	**NK21-REP-03600-00058 R001, Bruce A Integrated Summary Report for P2030 Safety Analysis up to 95.5% FP**	✓ Entire content ☐ Redacted content as clearly identified in the document.	☐ The information involves national or nuclear security elements ☐ The information pertains to Indigenous Knowledge The information is: ☐ Financial, ☐ Commercial, ☐ Scientific, ✓ Technical, ☐ Personal, or ✓ Other (specify), and ✓ Is consistently treated as confidential and the person affected has not consented to disclosure. Or: ☐ Disclosure of the information would likely endanger the life, liberty, or security of a person or person(s)	This report contains **technical information** that Bruce Power **consistently treats as confidential**. A non-confidential summary has been prepared based on the executive summary and key analysis conclusions. As the remaining content of the document is highly technical, there is no public interest in the disclosure of the remaining Bruce Power confidential information. Additionally, some of the information may meaningfully inform the design, operation and/or maintenance of a nuclear reactor, and therefore **may be considered controlled nuclear information**, pursuant to Part A.4 of the Nuclear Non-Proliferation Import and Export Control Regulations. The document contains extensive technical information regarding assumptions, acceptance criteria, trip coverage, and other operational parameters. While safety analysis relies on conservative assumptions and may consider events that are not within the scope of operating a reactor (e.g., design basis accidents), safety analysis nonetheless informs both design and operations. Accordingly, Bruce Power has conservatively judged that this information may be considered controlled nuclear information.

Table 1: Material subject to the request for Confidentiality

	Item Name	Portion(s) covered by the Request for Confidentiality	Applicable Criteria Check all that apply	Rationale Explain how the criteria in Rule 12 applies and how the summary or redacted version satisfies the public interest
2.	**NK29-REP-03600-00057 R001, Bruce B Integrated Summary Report for P2030 Safety Analysis up to 96% FP**	✓ Entire content ☐ Redacted content as clearly identified in the document.	☐ The information involves national or nuclear security elements ☐ The information pertains to Indigenous Knowledge The information is: ☐ Financial, ☐ Commercial, ☐ Scientific, ✓ Technical, ☐ Personal, or ✓ Other (specify), and ✓ Is consistently treated as confidential and the person affected has not consented to disclosure. Or: ☐ Disclosure of the information would likely endanger the life, liberty, or security of a person or person(s)	This report contains **technical information** that Bruce Power **consistently treats as confidential**. A non-confidential summary has been prepared based on the executive summary and key analysis conclusions. As the remaining content of the document is highly technical, there is no public interest in the disclosure of the remaining Bruce Power confidential information. Additionally, some of the information may meaningfully inform the design, operation and/or maintenance of a nuclear reactor, and therefore **may be considered controlled nuclear information**, pursuant to Part A.4 of the Nuclear Non-Proliferation Import and Export Control Regulations. The document contains extensive technical information regarding assumptions, acceptance criteria, trip coverage, and other operational parameters. While safety analysis relies on conservative assumptions and may consider events that are not within the scope of operating a reactor (e.g., design basis accidents), safety analysis nonetheless informs both design and operations. Accordingly, Bruce Power has conservatively judged that this information may be considered controlled nuclear information.

Attestation:

1. I confirm that the above-noted material is not available through any public sources.
2. I have attached a **summary** or **redacted** version of the material that minimally impairs the public nature of this proceeding.
3. I understand that if this request is not approved by the Commission, I will have the option of withdrawing the material.
4. I further understand that if the material is not withdrawn it will be part of the public record as per rule 15 of the Rules.
5. I understand that upon receipt of this request, the Commission Registrar will treat the material that is subject to this request as confidential unless and until the Commission makes a ruling.

Attachments:

- This request applies to Enclosures 2 and 3 of BP-CORR-00531-07412 (CMD 26-H104), or NK21-REP-03600-00058 R001, Bruce A Integrated Summary Report for P2030 Safety Analysis up to 95.5% FP and NK29-REP-03600-00057 R001, Bruce B Integrated Summary Report for P2030 Safety Analysis up to 96% FP, respectively.

Authorized signature: **BRUCE POWER L.P., by its General Partner, BRUCE POWER INC.**

Signed by:
Lisa Clarke
6F7DA9AAAA9D4E4...

Lisa Clarke, Director, Regulatory Affairs

2026/03/31
Date

BRUCE POWER
LAW DIVISION

Name: JV
Date: Mar 31, 2026

Attachment A

Summary of Bruce A Integrated Summary Report for P2030 Safety Analysis up to 95.5% FP

Attachment A:
Summary of Bruce A Integrated Summary Report for P2030 Safety Analysis up to 95.5% FP

This document is the Integrated Summary Report (ISR) for Safety and Control Area (SCA) Safety Analysis (SCA 4) for operation of the Bruce A units at the Intermediate Power Level (IPL) of 95.5% Full Power (FP) under Project 2030 (P2030). The analyses and assessments established by the Bruce A Safety Analysis Impact Report (SAIR) have been performed to demonstrate safe operation at the IPL, with other analyses in the Bruce A Safety Report, Part 3, confirmed to be applicable by means of the SAIR process.

The SAIR identified analyses and assessments to be performed for postulated initiating events associated with:

- Fuel Handling Failures
- Electrical Failures / Loss of Flow
- Control Failures
- Small Break Loss of Coolant Accidents (LOCAs)
- Large Break LOCA
- Heat Transport System and Auxiliary System Failures Outside of Containment
- Feedwater and Steam Supply System Failures
- Shutdown Cooling and Maintenance Cooling Failures
- Main Moderator and Moderator Auxiliary System Failures
- Common Mode Events

These analyses and assessments have:

- confirmed safety related system effectiveness for the postulated anticipated operational occurrences (AOOs) and safety system effectiveness for design basis accidents (DBAs) identified in the SAIR by applying safety analysis limits updated to accommodate operation up to the IPL; and,
- demonstrated that applicable safety analysis acceptance criteria are met, including dose limits to individuals and the public, as well as derived acceptance criteria that, when met, preclude release of radionuclides from the plant.

Details are provided in the analysis and assessment reports submitted to the CNSC.

There are no expected impacts on the Level 1 and 2 Probabilistic Safety Assessment (PSA) due to an increase to the IPL of 95.5% FP.

Bruce Power's experience in planning, executing, overseeing and implementing safety analysis has been incorporated into the standards, processes and procedures applied to the production and acceptance of the safety case for operation at up to the IPL.

Management of safety analysis is integrated with other SCAs, in particular, operational performance (SCA 3) and design (SCA 5) by means of procedures for identifying plant design changes to be incorporated into safety analysis and for updating the Operational Safety Requirements (OSRs) and Safe Operating Envelope (SOE) to support operation up to the IPL. The analyses and assessments submitted in support of the safety case for operation up to the IPL constitute part of the Analysis of Record (AoR) and are to be incorporated into Part 3 of the Safety Report.

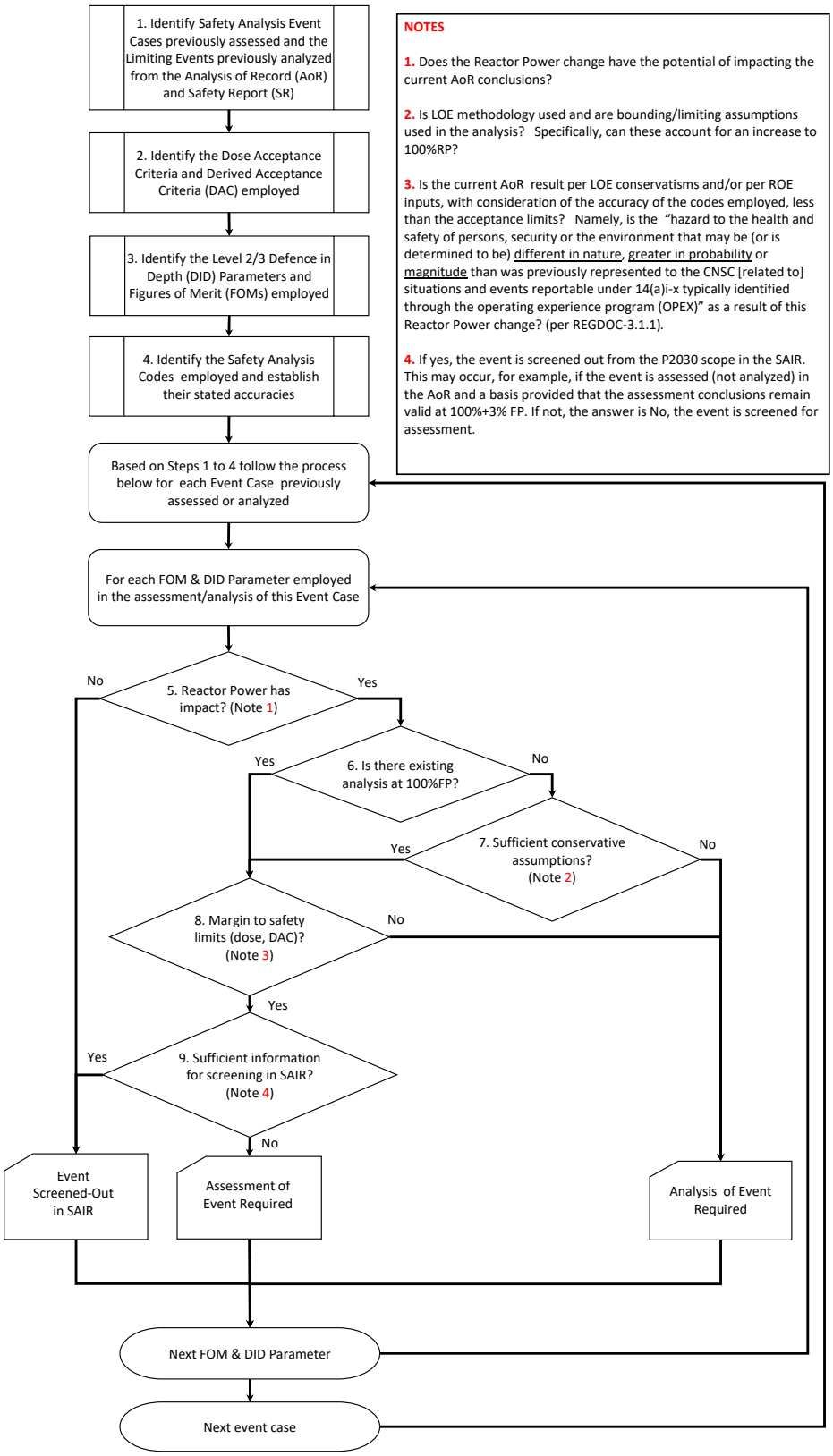

Figure 1. Screening and impact assessment flowchart

Table 1. ***Confirmation That Safety Analysis Acceptance Criteria Are Met for Bruce A Events Up to Intermediate Power Level of 95.5% FP***

#	Accident Category	Events Analyzed	Analysis Conclusion
1	**Fuel Handling Failures**	Design Basis Accident (DBA) Events	
		• Incomplete discharge of two irradiated bundles in the irradiated fuel port	**Acceptance Criterion Met**
2	**Electrical Failures / Loss of Flow**	Anticipated Operational occurrence (AOO) Events	
		• Total Loss of Class IV Power (AOO) • Partial Loss of Class IV Power to 2 Heat Transport (HT) Pumps and Single HT Pump Trip with no additional failures	**Acceptance Criteria Met**
		DBA Events	
		• Total Loss of Class IV Power (DBA) • Partial Loss of Class IV Power to 2 HT Pumps • Single HT Pump Trip • Single HT Pump Seizure	**Acceptance Criteria Met**
3	**Control Failures**	AOO Events	
		• Transient Loss of Reactivity Control • Loss of Power Regulation Unbounded • Loss of HT Pressure Control - Low • Loss of HT Pressure Control - High	**Acceptance Criteria Met**
		DBA Events	
		• Transient Loss of Reactivity Control – Fast (> 0.25 mk/s) • Transient Loss of Reactivity Control – Slow (≤ 0.25 mk/s)_ • Loss of Power Regulation (Unbounded or Bounded) • Loss of HT Pressure Control - Low	**Acceptance Criteria Met**
		Neutron Overpower Protection (NOP) Analysis	
		• Slow Loss of Reactivity (LOR) to establish required NOP trip setpoint	**Acceptance Criterion Met**

#	Accident Category	Events Analyzed	Analysis Conclusion
4	**Small Break Loss of Coolant Accident (LOCA)**	DBA Events	
		Out-of-Core Breaks • Break at the Top of Pressurizer • Guillotine Break of the Largest Inlet Feeder	**Acceptance Criteria Met**
		In-Core Breaks • Pressure Tube/Calandria Tube (PT/CT) rupture with no end-fitting ejection • Severe Channel Flow Blockage	**Acceptance Criteria Met**
5	**Large Break LOCA**	DBA Events	
		• Inner Zone Reactor Inlet Header (RIH) break • Pump Discharge break	**Acceptance Criteria Met**
		DBA Transition Break	
		• Break sizes from 950 kg/s to 3000 kg/s	**Acceptance Criterion Met**
6	**Heat Transport System and Auxiliary System Failures Outside of Containment**	AOO Events	
		• Consequential Leak Assessment – Spurious Opening of six (6) Safety Relief Valves (SRVs)	**Acceptance Criterion Met**
		DBA Events	
		• Consequential Leak Assessment Secondary Side – 100% Steam Generator Feedwater Nozzle Break • Heat Transport Pump Gland Seal Failure – Failure of Primary and Backup Seals in One Heat Transport System (HTS) Pump • Heat Transport Pump Gland Seal Circuit Failure – Guillotine Failure of the Gland Seal Pipe Downstream of the Last Check Valve; and • Steam Generator / Preheater Tube Failure - D_2O Feed/ D_2O Transfer System Unavailable	**Acceptance Criteria Met**

#	Accident Category	Events Analyzed	Analysis Conclusion
7	**Feedwater and Steam Supply System Failures**	AOO Events	
		• Leak in Feedwater (FW) system • Total loss of FW supply • Asymmetrical FW events • Symmetric FW line break • Inadvertent opening of SRVs • Turbine trip	**Acceptance Criteria Met**
		DBA Events	
		• Total loss of FW supply • Asymmetric FW line break • Small break in steam balance header or main steam line • Large break in steam balance header or main steam line	**Acceptance Criteria Met**
8	**Shutdown Cooling and Maintenance Cooling System Failures**	AOO Events	
		• Loss of Maintenance Cooling System (MCS) Forced Circulation - HTS Drained and Open	**Acceptance Criterion Met**
		DBA Events	
		• Loss of MCS inventory due to pipe failure with HTS pressurized at 90°C without forced circulation	**Acceptance Criterion Met**
9	**Main Moderator and Moderator Auxiliary System Failures**	DBA Events	
		• Small and Large Loss of Moderator Inventory (LOMI) Inside Containment	**Acceptance Criterion Met**
10	**Shield Cooling System Failures**	• No events analyzed. Current Analysis of Record applicable to IPL	Current analysis of record applicable to IPL.
11	**Common Mode Events**	DBA Events	
		• Seismic event with loss of Class IV power, moderator purification line break, chronic Steam Generator (SG) tube leakage, fuel bundles in Irradiated Fuel Port (IFP) transfer mechanism and fuel bundles in fueling machine in transit	**Acceptance Criterion Met**
12	**Legacy Design Basis Events (BDBAs by Frequency)**	• No events analyzed. Current Analysis of Record applicable to IPL	Current analysis of record applicable to IPL.

Attachment B

Summary of Bruce B Integrated Summary Report for P2030 Safety Analysis up to 96% FP

Attachment B:
Summary of Bruce B Integrated Summary Report for P2030 Safety Analysis up to 96% FP

This document is the Integrated Summary Report (ISR) for Safety and Control Area (SCA) Safety Analysis (SCA 4) for operation of the Bruce B units at the Intermediate Power Level (IPL) of 96% Full Power (FP) under Project 2030 (P2030). The analyses and assessments established by the Bruce B Safety Analysis Impact Report (SAIR) have been performed to demonstrate safe operation at the IPL, with other analyses in the Bruce B Safety Report, Part 3, confirmed to be applicable by means of the SAIR process.

The SAIR identified analyses and assessments to be performed for postulated initiating events associated with:

- Fuel Handling Failures
- Electrical Failures / Loss of Flow
- Control Failures
- Small Break Loss of Coolant Accidents (LOCAs)
- Large Break LOCA
- Heat Transport System and Auxiliary System Failures Outside of Containment
- Feedwater and Steam Supply System Failures
- Shutdown Cooling and Maintenance Cooling Failures
- Main Moderator and Moderator Auxiliary System Failures
- Common Mode Events

These analyses and assessments have:

- confirmed safety related system effectiveness for the postulated anticipated operational occurrences (AOOs) and safety system effectiveness for design basis accidents (DBAs) identified in the SAIR by applying safety analysis limits updated to accommodate operation up to the IPL; and,
- demonstrated that applicable safety analysis acceptance criteria are met, including dose limits to individuals and the public, as well as derived acceptance criteria that, when met, preclude release of radionuclides from the plant.

Details are provided in the analysis and assessment reports submitted to the CNSC.

There are no expected impacts on the Level 1 and 2 Probabilistic Safety Assessment (PSA) due to an increase to the IPL of 96% FP.

Bruce Power's experience in planning, executing, overseeing and implementing safety analysis has been incorporated in the standards, processes and procedures applied to the production and acceptance of the safety case for operation at up to the IPL.

Management of safety analysis is integrated with other SCAs, in particular, operational performance (SCA 3) and design (SCA 5) by means of procedures for identifying plant design changes to be incorporated into safety analysis and for updating the Operational Safety Requirements (OSRs) and Safe Operating Envelope (SOE) in support of operation up to the IPL. The analyses and assessments submitted in support of the safety case for operation up to the IPL constitute part of the Analysis of Record (AoR) and are to be incorporated into Part 3 of the Safety Report.

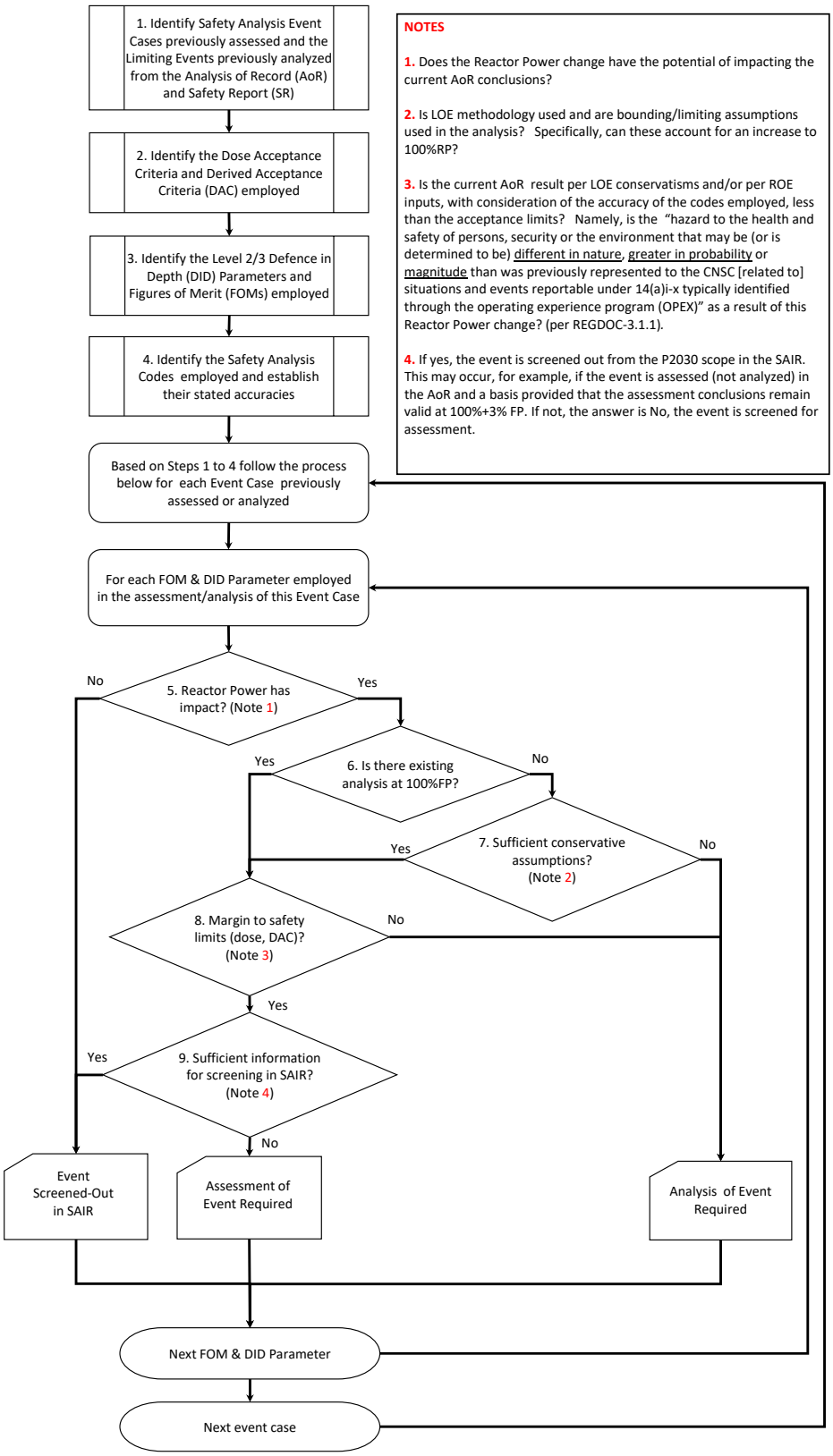

Figure 2. Screening and impact assessment flowchart

Table 2. Confirmation That Safety Analysis Acceptance Criteria Are Met for Bruce A Events Up to 95.5% FP

#	Accident Category	Events Analyzed	Analysis Conclusion
1	**Fuel Handling Failures**	DBA Events	
		• Incomplete discharge of two irradiated bundles in the irradiated fuel port	**Acceptance Criterion Met**
2	**Electrical Failures / Loss of Flow**	AOO Events	
		• Total Loss of Class IV Power (AOO)	**Acceptance Criterion Met**
		• Partial Loss of Class IV Power to 2 Heat Transport (HT) Pumps and Single HT Pump Trip with no additional failures	**Acceptance Criterion Met**
		DBA Events	
		• Total Loss of Class IV Power (DBA) • Partial Loss of Class IV Power to 2 HT Pumps • Single HT Pump Trip • Single HT Pump Seizure	**Acceptance Criteria Met**
3	**Control Failures**	AOO Events	
		• Transient Loss of Reactivity Control • Loss of Power Regulation Unbounded	**Acceptance Criteria Met**
		• Loss of HT Pressure Control - Low	
		• Loss of HT Pressure Control - High	
		• Loss of SG Pressure Control - High	
		DBA Events	
		• Transient Loss of Reactivity Control – Fast (> 0.25 mk/s)	**Acceptance Criterion Met**
		• Transient Loss of Reactivity Control – Slow (≤ 0.25 mk/s) • Loss of Power Regulation (Unbounded or Bounded)	**Acceptance Criteria Met**
		• Loss of HT Pressure Control - Low	**Acceptance Criterion Met**
		NOP Analysis	
		• Slow LOR to establish required NOP trip setpoint	**Acceptance Criterion Met**

#	Accident Category	Events Analyzed	Analysis Conclusion
4	**Small Break LOCA**	AOO Events	
		• Very Small Break (40 kg/s) at the Top of the Pressurizer	**Acceptance Criterion Met**
		DBA Events	
		Out-of-Core Breaks • Break at the Top of Pressurizer • Guillotine Break of the Largest Inlet Feeder • Small Transition Break 950 kg/s • Containment Blinding Break (excluding Break at the Top of the Pressurizer]BTP])	**Acceptance Criteria Met**
		In-Core Breaks • Pressure Tube/Calandria Tube (PT/CT) rupture with no end-fitting ejection • Severe Channel Flow Blockage	**Acceptance Criteria Met**
5	**Large Break LOCA**	DBA Events	
		• Inner Zone RIH break • Outer Zone RIH break • Pump Discharge break	**Acceptance Criteria Met**
		DBA Transition Break	
		• Break sizes from 950 kg/s to 3000 kg/s •	**Acceptance Criterion Met**

#	Accident Category	Events Analyzed	Analysis Conclusion
6	**Heat Transport System (HTS) and Auxiliary System Failures Outside of Containment**	AOO Events	
		• Consequential Leak Assessment – Spurious Opening of six (6) Safety Relief Valves (SRVs)	**Acceptance Criterion Met**
		DBA Events	
		• Consequential Leak Assessment Secondary Side – Failure of the Emergency Water Supply Line Connected to a Steam Generator • Heat Transport Pump Gland Seal Failure – Failure of Primary and Backup Seals in One HTS Pump • Heat Transport Pump Gland Seal Circuit Failure – Guillotine Failure of the Gland Seal Pipe Downstream of the Last Check Valve; and • Steam Generator / Preheater Tube Failure - D_2O Feed/ D_2O Transfer System Unavailable	**Acceptance Criteria Met**
7	**Feedwater and Steam Supply System Failures**	AOO Events	
		• Leak in FW system • Total loss of FW supply • Asymmetrical FW events • Symmetric FW line break • Inadvertent opening of SRVs • Inadvertent closure of 1 MSIV • Turbine trip	**Acceptance Criteria Met**
		DBA Events	
		• Total loss of FW supply • Asymmetric FW line break • Small break in steam balance header or main steam line • Large break in steam balance header or main steam line • Turbine Trip	**Acceptance Criteria Met**

#	Accident Category	Events Analyzed	Analysis Conclusion
8	**Shutdown Cooling and Maintenance Cooling System (MCS) Failures**	AOO Events	
		• Loss of MCS Forced Circulation - HTS Drained and Open	**Acceptance Criterion Met**
		DBA Events	
		• Loss of MCS inventory due to pipe failure with HTS pressurized at 90°C without forced circulation	**Acceptance Criterion Met**
9	**Main Moderator and Moderator Auxiliary System Failures**	DBA Events	
		• Small and Large Loss of Moderator Inventory (LOMI) Inside Containment	**Acceptance Criterion Met**
10	**Shield Cooling System Failures**	• No events analyzed. Current Analysis of Record applicable to IPL	Current Analysis of Record applicable to IPL.
11	**Common Mode Events**	DBA Events	
		• Seismic event with chronic SG tube leakage, tritium from the moderator system inventory as it boils off, fuel bundles in IFP transfer mechanism and fuel bundles in fuelling machine in transit	**Acceptance Criterion Met**
12	**Legacy Design Basis Events (BDBAs by Frequency)**	• No events analyzed. Current Analysis of Record applicable to IPL	Current Analysis of Record applicable to IPL.