



# Rolls-Royce

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1 July 2009

U.S. Nuclear Regulatory Commission  
 Document Control Desk  
 11555 Rockville Pike  
 Rockville, MD 20852 USA

PROJ 773

ATTENTION: To whom it may concern

SUBJECT: Rolls-Royce Civil Nuclear SAS submittal of the updated **SPINLINE 3** Licensing Topical Report (LTR) and associated documents

REFERENCE: Project Number 0773: **SPINLINE 3** Digital Safety Instrumentation & Control Platform

Rolls-Royce plc formed a Civil Nuclear business unit in July 2008. In December 2008, Data Systems & Solutions, LLC ("DS&S"), a wholly-owned subsidiary of Rolls-Royce plc, submitted an initial set of licensing documents to the NRC in connection with a request for generic approval of the **SPINLINE 3** digital safety instrumentation and control (I&C) platform for use in U.S. nuclear power plants and nuclear facilities. NRC assigned Project Number 0773 to this request for generic approval. The assigned NRC Project Manager for this generic **SPINLINE 3** licensing project is Mr. Eric Bowman (Mail Stop 012-E5).

Effective 1 January 2009, the former Data Systems & Solutions SAS business unit in Meylan, France was realigned within Rolls-Royce plc and re-incorporated as Rolls-Royce Civil Nuclear SAS. As the owner of the intellectual property for **SPINLINE 3**, Rolls-Royce Civil Nuclear SAS hereby replaces Data Systems & Solutions, LLC as the applicant for NRC generic approval of the **SPINLINE 3** digital safety I&C platform.

Rolls-Royce Civil Nuclear SAS requests that NRC replace the documents originally submitted by DS&S with the updated Rolls-Royce Civil Nuclear SAS documents listed in the following table.

Documents originally submitted by DS&S, LLC		Replacement documents submitted by Rolls-Royce Civil Nuclear SAS	
Document Title	Document Number	Document Title	Document Number
Licensing Topical Report (LTR)	3 008 503A	Same	3 008 503B
Equipment Qualification (EQ) Plan	3 006 501B	Same	3 006 501C
System Specification of the Qualification Test Specimen and Data Acquisition System	3 006 404B	Same	3 006 404C
I&C US Quality Assurance Program Reference Handbook	500-9600000-10, Revision 3	Instrumentation & Controls US Quality Manual	500-9600000-10, ICQ-005-C
<b>SPINLINE 3</b> Software Quality Assurance Plan - SQAP	8 307 208A	Same	8 307 208B
<b>SPINLINE 3</b> Software Configuration Management Plan - SCMP	8 307 209A	Same	8 307 209B
<b>SPINLINE 3</b> Software Verification and Validation Plan - SVVP	8 307 210A	Same	8 307 210B
<b>SPINLINE 3</b> Software Development Plan - SDP	8 307 211A	Same	8 307 211B

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Rolls-Royce Civil Nuclear SAS also is submitting herewith the following new documents for Project Number 0773.

New documents submitted by Rolls-Royce Civil Nuclear SAS	
Document Title	Document Number
<i>SPINLINE 3</i> Design Analysis Report	MPR-3337 Rev 1
Rolls-Royce Civil Nuclear SAS Quality Manual	8 303 186 P
System Integration and Factory Test Plan	8 307 245 A
System Installation and Site Test Plan	8 307 243 A
System Training Plan	8 307 242 A
System Operations and Maintenance Plan	8 307 244 A
Cyber Security Plan	8 307 255 A
Setpoint Analysis Support	3 009 397 A

All documents are submitted as pdf files on two CDs; one containing the proprietary versions of the documents and the other containing the non-proprietary versions.

Rolls-Royce Civil Nuclear SAS requests that the proprietary versions of the documents be withheld from public disclosure. In accordance with 10 CFR 2.390, "Public inspections, exemptions, requests for withholding", an affidavit is enclosed identifying the specific portions of the above documents that are proprietary and the basis for making that determination.

The redacted non-proprietary versions of the above documents are suitable for public disclosure.

Best regards,



Jean-michel Palaric  
Technical Director  
Rolls-Royce Civil Nuclear SAS



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## Affidavit

In accordance with 10 CFR 2.390, "Public inspections, exemptions, requests for withholding," Rolls-Royce Civil Nuclear SAS ("RRCN") requests withholding from public disclosure of the documents listed in Table 1, which is attached to this affidavit. As required by 10 CFR 2.390, RRCN has included in Table 1 the following information:

- Identity of the document or part sought to be withheld;
- Declaration of the basis for proposing the information be withheld, encompassing considerations set forth in § 2.390(a);
- Specific statement of the harm that would result if the information sought to be withheld is disclosed to the public; and
- Locations in the documents of all information sought to be withheld.

As required in § 2.390(b)(4); RRCN wishes to note that the request for withholding from public disclosure applies to pages that contain commercially sensitive information that RRCN normally discloses only under a Non-Disclosure Agreement (NDA). This commercially sensitive information is not available in public sources and is the type of information customarily held in confidence by RRCN and our competitors. RRCN is transmitting this information to NRC in confidence.

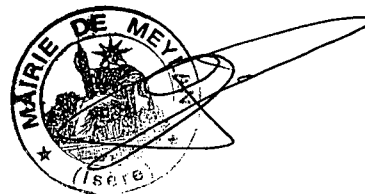
As noted in Table 1, release of this information in a public forum could cause harm to RRCN by revealing trade secrets and/or commercially sensitive design and operational details and technical processes related to designing, building, and/or operating a *SPINLINE 3* digital safety instrumentation and control system.

As Rolls-Royce Civil Nuclear SAS Technical Director, I am responsible for reviewing the information sought to be withheld, and I am authorized to apply for its withholding on behalf of RRCN.

Jean-michel Palaric  
Technical Director  
Rolls-Royce Civil Nuclear SAS

Vu pour la légalisation de la signature  
de M. Jean-michel Palaric  
apposée ci-contre.

Meylan, le 06 JUIL. 2009  
P/Le Maire l'Agent délégué.



**Table 1**  
**Documents requested for withholding from public disclosure**

Document Title and Number	Part of document sought to be withheld from public disclosure	Basis for proposing the information be withheld, encompassing considerations set forth in § 2.390(a)	Specific statement of the harm that would result if the information sought to be withheld is disclosed to the public	Location(s) in the document of all information sought to be withheld (Notes 1, 2 and 3)
Licensing Topical Report, document number 3 008 503 B	Portions of Table of Contents, Chapters 3, 4, 5, 6 and Appendix A, as marked by brackets [[ ]].	Trade secrets and / or commercial information as per § 2.390(a)(4)	<p>Rolls-Royce Civil Nuclear SAS would be harmed by disclosure of the identified commercially sensitive information, which is of value to a competitor because it would enable them to make direct comparisons between aspects of their safety I&amp;C platform and life cycle processes and the corresponding details for <b>SPINLINE 3</b>.</p> <p>Certain Chapter 3 tables provide proprietary details on design and process compliance with specific NRC and industry standards, codes and guides.</p> <p>Chapter 4 provides proprietary design and operating characteristics of <b>SPINLINE 3</b> hardware and software, including details on how digital communications and automated testing are implemented.</p> <p>Chapter 5 defines the proprietary qualification envelope and provides proprietary reliability data for <b>SPINLINE 3</b> hardware</p>	<p>In Chapter 3: Mapping column in Tables 3.2-1 and 3.2-2; also Compliance columns in Tables 3.6-1, 3.7-1, 3.8-1, 3.8-2 and 3.10-1, as marked by brackets [[ ]].</p> <p>In Chapter 4: Sections 4.2.4, 4.2.6, 4.2.8, 4.3.2 to 4.3.4, 4.4.1 to 4.4.6, 4.5.1 to 4.5.7, 4.6.2 to 4.6.8, 4.6.9.1, 4.6.9.2, 4.6.10.1, 4.6.10.2, and 4.7, as marked by brackets [[ ]].</p> <p>In Chapter 5: Columns in Tables 5.1-1 and 5.2-1, as marked by brackets [[ ]].</p>

Document Title and Number	Part of document sought to be withheld from public disclosure	Basis for proposing the information be withheld, encompassing considerations set forth in § 2.390(a)	Specific statement of the harm that would result if the information sought to be withheld is disclosed to the public	Location(s) in the document of all information sought to be withheld (Notes 1, 2 and 3)
			<p>Chapter 6 provides proprietary details on the proprietary software life cycle processes for the <b>SPINLINE 3</b> platform software and application software.</p> <p>Appendix A provides proprietary design and operating characteristics of the individual <b>SPINLINE 3</b> hardware components.</p>	<p>In Chapter 6: Sections 6.1 to 6.6, as marked by brackets [[ ]]:</p> <p>In Appendix A: all datasheets</p>
Equipment Qualification (EQ) Plan, document number 3006501 C	Table 1 and portions of Appendices A to M, as marked by brackets [[ ]].	Trade secrets and / or commercial information as per § 2.390(a)(4)	<p>Rolls-Royce Civil Nuclear SAS would be harmed by disclosure of the identified commercially sensitive information, which is of value to a competitor because it would enable them to make direct comparisons between the qualification processes and qualification envelopes for their safety I&amp;C platform and the corresponding details for <b>SPINLINE 3</b>.</p> <p>The specified EQ Plan table and the appendices define the specific qualification envelope and test processes applied to <b>SPINLINE 3</b> hardware.</p>	<p>Some or all of the following table and Sections in the appendices as marked by brackets [[ ]]:</p> <ul style="list-style-type: none"> <li>• Table 1</li> <li>• A.2, A.6, A.7</li> <li>• B.4, B.6, B.7</li> <li>• C.2, C.4, C.6 to C.9</li> <li>• D.2, D.6 to D.9</li> <li>• E.5 to E.9</li> <li>• F.6 to F.10</li> <li>• G.6 to G.10</li> <li>• H.6 to H.10</li> <li>• I.6 to I.10</li> <li>• J.6 to J.10</li> <li>• K.6, K.7</li> <li>• L.5</li> <li>• M.5</li> </ul>

Document Title and Number	Part of document sought to be withheld from public disclosure	Basis for proposing the information be withheld, encompassing considerations set forth in § 2.390(a)	Specific statement of the harm that would result if the information sought to be withheld is disclosed to the public	Location(s) in the document of all information sought to be withheld (Notes 1, 2 and 3)
System Specification of the Qualification Test Specimen and Data Acquisition System, document number 3 006 404 C	Entire document (see Note 3).	Trade secrets and / or commercial information as per § 2.390(a)(4)	Rolls-Royce Civil Nuclear SAS would be harmed by disclosure of the following commercially sensitive details of how to implement the hardware and software components of a <b>SPINLINE 3</b> system (in this case the Qualification Test Specimen). This would be of value to a competitor in understanding specific competitive design and operational characteristics of <b>SPINLINE 3</b> systems.	Entire document (see Note 3).
<b>SPINLINE 3</b> Software Quality Assurance Plan - SQAP, document number 8 307 208 B	Entire document (see Note 3).	Trade secrets and / or commercial information as per § 2.390(a)(4)	Rolls-Royce Civil Nuclear SAS would be harmed by disclosure of its proprietary technical process for implementing safety software quality assurance. These processes underpin the integrity of <b>SPINLINE 3</b> software, which is an important competitive advantage for Rolls-Royce Civil Nuclear SAS.	Entire document (see Note 3).
<b>SPINLINE 3</b> Software Configuration Management Plan - SCMP, document number 8 307 209 B	Entire document (see Note 3).	Trade secrets and / or commercial information as per § 2.390(a)(4)	Rolls-Royce Civil Nuclear SAS would be harmed by disclosure of its proprietary technical process for implementing safety software configuration management. These processes underpin the integrity of <b>SPINLINE 3</b> software, which is an important competitive advantage for Rolls-Royce Civil Nuclear SAS.	Entire document (see Note 3).

Document Title and Number	Part of document sought to be withheld from public disclosure	Basis for proposing the information be withheld, encompassing considerations set forth in § 2.390(a)	Specific statement of the harm that would result if the information sought to be withheld is disclosed to the public	Location(s) in the document of all information sought to be withheld (Notes 1, 2 and 3)
<b>SPINLINE 3</b> Software Verification and Validation Plan - SVVP, document number 8 307 210 B	Entire document (see Note 3).	Trade secrets and / or commercial information as per § 2.390(a)(4)	Rolls-Royce Civil Nuclear SAS would be harmed by disclosure of its proprietary technical process for implementing safety software V&V. These processes underpin the integrity of <b>SPINLINE 3</b> software, which is an important competitive advantage for Rolls-Royce Civil Nuclear SAS.	Entire document (see Note 3).
<b>SPINLINE 3</b> Software Development Plan - SDP, document number 8 307 211 B	Entire document (see Note 3).	Trade secrets and / or commercial information as per § 2.390(a)(4)	Rolls-Royce Civil Nuclear SAS would be harmed by disclosure of its proprietary technical process for implementing safety software configuration management. These processes underpin the integrity of <b>SPINLINE 3</b> software, which is an important competitive advantage for Rolls-Royce Civil Nuclear SAS.	Entire document (see Note 3).
<b>SPINLINE 3</b> Design Analysis Report, document number MPR-3337	Entire document (see Note 3).	Trade secrets and / or commercial information as per § 2.390(a)(4)	Rolls-Royce Civil Nuclear SAS would be harmed by disclosure of this proprietary assessment by MPR Associates of the generic <b>SPINLINE 3</b> platform. This assessment documents the technical basis for commercially dedicating the platform software, which is a key competitive issue for introducing <b>SPINLINE 3</b> to the U.S. market.	Entire document (see Note 3).
Rolls-Royce Civil Nuclear SAS Quality Manual, document number. 8 303 186 P	Two figures in Sections 7 and 8.5.1, as marked by brackets [[ ]].	Trade secrets and / or commercial information as per § 2.390(a)(4)	Rolls-Royce Civil Nuclear SAS would be harmed by disclosure of its proprietary technical processes for project engineering and continuous improvement. These processes underpin Rolls-Royce Civil Nuclear SAS efficiency in designing, developing and delivering <b>SPINLINE 3</b> systems. This is an important competitive advantage.	The following parts of the document as marked by brackets [[ ]]: <ul style="list-style-type: none"> <li>The figures in Sections 7 and 8.5.1 of both the English and French versions of this document.</li> </ul>

Document Title and Number	Part of document sought to be withheld from public disclosure	Basis for proposing the information be withheld, encompassing considerations set forth in § 2.390(a)	Specific statement of the harm that would result if the information sought to be withheld is disclosed to the public	Location(s) in the document of all information sought to be withheld (Notes 1, 2 and 3)
System Integration and Factory Test Plan, document number 8 307 245 A	Portions of Chapters 1, 6, 7 and Appendices A and B, as marked by brackets [[ ]].	Trade secrets and / or commercial information as per § 2.390(a)(4)	Rolls-Royce Civil Nuclear SAS would be harmed by disclosure of the proprietary testing details that define scope of testing and process for integrating hardware and software during system in connection with this Plan. These processes underpin Rolls-Royce Civil Nuclear SAS the integrity of <b>SPINLINE 3</b> systems delivered from the factory. This is an important competitive advantage.	The following parts of the document as marked by brackets [[ ]]: <ul style="list-style-type: none"> <li>• Table 1</li> <li>• Sections 6.1, and 7.4</li> <li>• Appendices A and B</li> </ul>
System Operations and Maintenance Plan, document number 8 307 244 A	Portions of Table of Contents, Chapters 4, 5 and Appendices A, B and C, as marked by brackets [[ ]].	Trade secrets and / or commercial information as per § 2.390(a)(4)	Rolls-Royce Civil Nuclear SAS would be harmed by disclosure of the proprietary process for preparing the Operations and Maintenance manuals that describe the detailed operating characteristics of <b>SPINLINE 3</b> hardware. This would be of value to a competitor in understanding specific competitive design and operational characteristics of <b>SPINLINE 3</b> systems.	The following parts of the document as marked by brackets [[ ]]: <ul style="list-style-type: none"> <li>• Table of Contents</li> <li>• Chapters 4, and 5</li> <li>• Appendices A, B and C</li> </ul>
Cyber Security Plan, document number 8 307 255 A	Entire document (see Note 3)	Trade secrets and / or commercial information as per § 2.390(a)(4)	The document presents sensitive cyber security information, including a description of how Rolls-Royce Civil Nuclear SAS has integrated cyber security measures into its industrial facilities and processes. Rolls-Royce Civil Nuclear SAS would be harmed by disclosure of this proprietary information to the public, which could include persons or organizations intent on subverting the cyber security of <b>SPINLINE 3</b> systems.	Entire document (see Note 3)



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Setpoint Analysis Support, document number 3 009 397 A	Entire document (see Note 3)	Trade secrets and / or commercial information as per § 2.390(a)(4)	Rolls-Royce Civil Nuclear SAS would be harmed by disclosure of the commercially sensitive details on the characteristics of <b>SPINLINE 3</b> hardware related to establishing system setpoints. This would be of value to a competitor in understanding specific competitive design and operational characteristics of <b>SPINLINE 3</b> systems.	Entire document (see Note 3)

**Notes:**

- (1) In documents with significant non-proprietary content, the specific parts of the documents that contain proprietary information are denoted by double brackets ("[[ ]]") at the beginning and end of each proprietary segment. In the non-proprietary version of the document, the information within the brackets is removed.
- (2) As required in IN 2009-07, documents containing proprietary information are marked with the word "Proprietary" at the top of the first page of the document and at the top of each page containing such information.
- (3) As noted in IN 2009-07, in instances in which a nonproprietary version would be of no value to the public because of the extent of the proprietary information, the agency does not expect a nonproprietary version to be submitted.