

**Convention on Nuclear Safety**

**Questions Posted To Netherlands in 2017**

N o.	Country	Article	Ref. in National Report	Question	Answer	Support Documents
1	Australia	General	General	Some sections of this report address the two research reactors whilst other sections don't. Whilst it is acknowledged that the CNS only requires reporting in relation to NPPs, it is suggested that for completeness and for transparency, research reactors should be consistently addressed in this report.	Thank you for your comment. The Netherlands will consider the suggestion for the next report in 2019. The present edition and previous editions of our national report has provided limited information on RRs (mostly about the HFR) in our country. This information has been published mainly because CPs have expressed an interest in it and because some lessons learnt can be derived from such information.	
2	France	General	Appendix 9 and 10, 195 to 243	What are the solutions considered to install mobile equipment post-Fukushima as a result of an extreme earthquake which would destroy access to nuclear buildings?	Redundancy and separation, as not all nuclear buildings and access ways are supposed to be blocked at the same time.	
3	France	General	Summary, 27	Netherlands mentions that "The Dutch Safety Board	The text is not clear, our apologies for that: the OVV investigates all sorts of incidents and accidents, not particularly accidents or incidents	

				<p>(Dutch acronym: OVV) is an independent organization charged with the task to investigate incidents or accidents and to draw lessons from the results of these investigations” . Could Netherlands provide detail on the way these results are used by ANVS?</p>	<p>involving radiation or nuclear issues. Such accidents or incidents are investigated by the licence holders and the ANVS. In fact this is the first time that an OVV investigation relates to nuclear matters and the ANVS; also it is an exceptional investigation because it is not triggered (like it usually does) by any accident/incident but by concerns in society about the adequacy of the organization of emergency preparedness in the border region between the Netherlands and Belgium. After the publication of the OVV report (expected in 2017) the ANVS will study its contents and consider the appropriate follow-up of its recommendations and suggestions.</p>	
4	Germany	General	p. 24	<p>The Netherlands reports on the development of the regulatory body: “A proposal to establish one single national Authority for Nuclear Safety and Radiation Protection was prepared, with a legal analysis of the possibilities. Various ministries were involved. The final decision by the Government (in January 2014) was to establish the ANVS as a</p>	<p>Comment from our neighbouring country that is appreciated very much.</p>	

				<p>competent and independent administrative body (Dutch acronym: ZBO) for the regulation of nuclear safety, nuclear security, radiation protection, transport safety, and waste management and emergency preparedness and response.”</p> <p>The establishment of the ANVS as single and independent national Authority for Nuclear Safety and Radiation Protection has been an important and noteworthy development of the last years in the Netherlands.</p>	
5	Germany	General	p. 187	<p>The Netherlands reports on the licence renewal for the HFR reactor. Is the operating licence for nuclear installations in the Netherlands typically</p>	<p>No, the operation licence of nuclear installations is typically not limited in time. An exception to this is the duration of the licence of the Borssele NPP; following a political discussion in the early '00s, the Borssele license has been limited to 31 december 2033.</p> <p>According to the Nuclear Energy Act, a 10-year safety review is requested which usually leads to modification of the licence specifications; besides the authority</p>

				limited in time? What is the typical licensing period?	can request a revision of the licence if it is felt necessary.	
6	Ireland	General	N/A	Ireland thanks the Kingdom of the Netherlands for its comprehensive national report.	The Netherlands very much appreciates this comment.	
7	Ireland	General	N/A	Areas of Good Performance: The requirement of a two-yearly safety evaluation report, in which the Licence Holder presents its own assessment of performance with respect to the technical, organisational, personnel and administrative provisions of its licence, is considered to be an area of good performance.	Very much appreciated.	
8	Peru	General	Page 23	As shown in report, significant efforts were made at governmental level to face the challenges in last CSN Meeting, what it is positively	The regulatory framework is described in the text on Article 7 of the CNS. These regulations apply to the NPP, but also to other nuclear facilities. In the licence of the NPP additional applicable rules can be referenced like the amended IAEA guides called NVRs, amended or adapted IAEA standards. Refer to Appendix 4 for these NVRs.	

				<p>recognized. However, the abundant legal provisions give no clarity to find the main nuclear and radiation safety regulations applying nuclear power plants. Any specific.</p>	
9	Peru	General	Appendix 8. Page 192	<p>The Mission OSART found a number of areas in need of improvement to enhance operational safety performance. All of them are considered important but specifically with regard to lack of leadership recognition through organization, expectations of personnel not systematically met nor reinforced by managers or supervisors, the insufficient on-site emergency arrangements for protection workers in emergencies, incomplete procedures for</p>	<p>The follow-up of OSART has been split into two stages. Stage one has been 5-9 December 2016 and looked at all regular issues except MOA, ISCA and Corporate modules. From 19 issues, 14 have been resolved completely and 5 have been resolved with sufficient progress. During the second stage of the FU the MOA, ISCA and Corporate issues will be dealt with and in addition the 5 issues from the first stage that were not resolved completely. These 5 issues contain EPR and procedures for abnormal situations.</p>

				<p>abnormal situations and not addressing the scope of all credible plant states. How these observations have been faced or resolved?</p>		
10	Peru	General	Appendix 8. Page 193	<p>The IRRS Mission in 2014 identified some aspects which need to improve for enhancing the performance of regulatory body. How these recommendations have been faced or resolved?</p>	<p>In the Report the main issues have been mentioned. The follow-up mission will take place ultimo 2018. Actions are underway to resolve the issues before that or with a planning not far beyond.</p>	
11	Switzerland	General	Review of National Report	<p>"A. General comments on National Report as a process of self-assessment of the implementation of the obligations of the Convention." The report documents how the Netherlands meets the obligations of each of the articles established by the Convention,</p>	<p>Thank you for your comment.</p>	

			<p>plus the Vienna Declaration on Nuclear Safety and the five Fukushima challenges. The peer review is facilitated due to the structure of a self-supporting document. The report is clearly and well written, although additional editorial work (misprints, etc.) would increase the quality. Since the publication of the Netherlands' sixth national report to the Convention in 2013, some changes were included in the Nuclear Energy Act; one established the Minister of Infrastructure and the Environment to act as the principal responsible authority for conducting the regulatory process and for the main functions of</p>	
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			<p>the Regulatory Body. It is expected that in 2017, the Authority for Nuclear Safety and Radiation Protection (ANVS) will become an independent administrative authority and thus the competent regulatory authority. The ANVS has completed in 2015 the new Dutch Safety Guidelines' for water cooled Reactors. They are based on the IAEA Safety Fundamentals, Safety Requirements guides and Safety Guides, safety objectives for new NPPs published by WENRA. The Dutch Safety Guidelines take into account the post-Fukushima insights and are in line with the European Directive on Nuclear Safety and the objectives of</p>	
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			<p>the Vienna Declaration on Nuclear Safety. The Netherlands' only NPP has been in operation for over 40 years. In 2013 the LTO-license became effective. Before the end of 2013 various license requirements were fulfilled, including the completion of the recommendations from the regulatory evaluation of LTO programme of the License Holder. In these recommendations the results of the SALTO mission of May 2012 have been considered. There was a SALTO follow up mission in February 2014. The government and the owners of the NPP agreed in 2006 on the conditions for the continued</p>	
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				<p>operation of the Borssele NPP until the end of 2033. The NPP has to remain in the top 25% safest water cooled and water moderated reactors operating in the EU, the USA and Canada. To assess this requirement, the Borssele Benchmark Committee was established. It reported its findings for the first time in September 2013, the next report is expected for 2018. Current developments affect the profitability of electricity production of the Borssele NPP. ANVS is closely monitoring developments, as far as they may be relevant with regard to nuclear safety.</p>		
12	Switzerland	General	Review of National	"B. Comments on progress made on	Thank you for your comment	

			Report	<p>previous Challenges and Suggestions identified at previous Review." During the sixth CNS Review Meeting, several challenges facing the Dutch regulatory body were identified: Establish the new independent Regulatory Body, Workload of the Regulatory Body, Maintaining number and quality of staff (RB and LH), Emergency preparedness and response and Harmonization with neighbouring countries. The report documents how the Netherlands have dealt with these challenges. The Netherlands worked on Challenges identified at the 6th CNS</p>	
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				<p>meeting by the Special Rapporteur on the lessons of the Fukushima Daiichi accident. In addition, the Netherlands report in detail about the implementation of the Vienna Declaration. The Netherlands would welcome a statement within the framework of the CNS peer review stressing the importance of regulatory safety culture, transparency and openness and sharing best practices on how to achieve these.</p>		
13	Switzerland	General	Vienna Declaration	<p>Principle 1 1.1 How do you define ‘a new nuclear power plant’? For example: do you consider a power plant to cease being a ‘new nuclear power plant’ once operation begins?</p>	<p>A nuclear power plant is considered new when the licence application for construction arrived beyond the publication date of the EU-Directive on nuclear safety (25 June 2009, COUNCIL DIRECTIVE 2009/71/EURATOM).</p>	
14	Switzerland	General	Vienna Declaration	<p>Prevention 1.2 How does</p>	<p>We refer to page 33 of the National Report (point 3 about the Vienna</p>	

			<p>on</p> <p>your national requirements and regulations incorporate appropriate technical criteria and standards to address the objective of preventing accidents in the commissioning and operation of new nuclear power plants? For example: can you describe the basic design objectives and the measures you have in place to ensure the robustness and independence of defense in depth measures? Consider for instance inclusion of implementation of Regulatory requirements for:</p> <ul style="list-style-type: none"> <li>• Robustness of DiD and independency of the levels of DiD;</li> <li>• Design Extension Conditions (DEC);</li> <li>• practical</li> </ul>	<p>Declaration) and also art.18 for a global answer. The details for new nuclear power plants are to be found in the VOBK/DSR. This document has been published. See the following link:  <a href="https://english.autoriteitnvs.nl/topics/guidelines-on-the-safe-design-and-operation-of-nuclear-reactors/documents/publication/2015/11/1/guidelines-on-the-safe-design-and-operation-of-nuclear-reactors">https://english.autoriteitnvs.nl/topics/guidelines-on-the-safe-design-and-operation-of-nuclear-reactors/documents/publication/2015/11/1/guidelines-on-the-safe-design-and-operation-of-nuclear-reactors</a>.</p>	
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				<p>elimination of high pressure core melt scenarios;</p> <ul style="list-style-type: none"> <li>• achieving a very low core melt frequency;</li> <li>• protecting digital safety equipment against Common Cause Failure (CCF).</li> <li>• External events analysis</li> </ul>		
15	Switzerland	General	Vienna Declaration	<p>Mitigation 1.3 How do your national requirements and regulations incorporate appropriate technical criteria and standards to address the objective of mitigating against possible releases of radionuclides causing long-term offsite contamination and avoiding early radioactive releases or radioactive releases large enough to require long-term protective measures and actions. For example:</p>	<p>We have drafted a 6-page answer to your questions, which will be sent to IAEA and your national contact point.</p>	

				<p>can you describe the measures you have in place to protect against severe accidents and your accident management arrangements - how do you protect staff during accident management? Consider for instance inclusion of implementation of Regulatory requirements for:</p> <ul style="list-style-type: none"> <li>• Engineered systems to protect the containment;</li> <li>• engineered systems to cool the molten core;</li> <li>• severe accident management, protection of staff during the accident.</li> <li>• Provision and resilience of Emergency Mitigation Equipment (EME)</li> </ul>	
16	Switzerland	General	Vienna Declaration	<p>Principle 2 2.1 How do your national requirements and regulations address the application of</p>	<p>The requirements of the VDNS can also be found in the Euratom Directive 'COUNCIL DIRECTIVE 2009/71/EURATOM of 25 June 2009 establishing a Community framework for the nuclear safety of nuclear installations' and an</p>

				<p>the principles and safety objectives of the Vienna Declaration to existing NPPs?</p>	<p>amendment by Council Directive 2014/87/Euratom of 8 July 2014. The Council Directive 2009/71 has been transposed into Dutch regulation by means of a Ministerial Regulation. The Directive reflects the provisions of the main international instruments in the field of nuclear safety, namely the Convention on Nuclear Safety, as well as the Safety Fundamentals (established by the International Atomic Energy Agency ('IAEA')). In 2017 the amendment (2014/87/Euratom) will also be transposed into a new Regulation. The purpose of the amendment was to include a high level Community nuclear safety objective covering all stages of the lifecycle of nuclear installations (siting, design, construction, commissioning, operation, decommissioning). This also includes existing NPPs. In the Netherlands there are also the the Guidelines on the Safe Design and Operation of Nuclear Reactors (VOBK) - Safety Guidelines for short. The more technical part of it is names 'Dutch Safety Requirements' (DSR). Refer to our report at article 7, page 56 and Appendix 1 (page 147). They are applicable to new installations but also applicable to existing nuclear power reactors as far as reasonably achievable and in line with the objective of continuous improvement.</p>	
17	Switzerland	General	Vienna Declaration	<p>2.2 Do your national requirements and regulatory framework require the performance of periodic comprehensive and systematic</p>	<p>The NL has implemented the EU-safety directive 2009 and will implement its updated version from 2014. Both contain requirements for periodic safety review. Similar requirement for a periodic safety review was already included in the license (prior to the directive). The licence also has a requirement to use IAEA SSG-25 as a reference. During</p>	



				<p>safety assessments of existing NPPs – if so, against what criteria/bench marks are these assessments completed and how do you ensure the findings of such assessments are implemented?</p>	<p>the startup of a periodic safety review the licensee has to provide a so called PSR plan and the proposed references to assess against. In general actual developments in international regulations, plant design, methods etc.. will be taken in to account en considered as reference. Based on the findings of the review, the licensee has to develop an implementation plan and send it to the RB for agreement. The RB will then inspect the implementation.</p>	
18	Switzerland	General	Vienna Declaration	<p>2.3 Do your national requirements and regulations require reasonably practicable/achievable safety improvements to be implemented in a timely manner – if so, against what risk/engineering objective or limit are these judged and can you give practical examples?</p>	<p>Yes, reasonably practical/achievable safety improvements identified during the PSR shall be implemented in a timely manner. According to the licence of the Borssele NPP, 5 years implementation time is required. Longer implementation time for specific measures is possible if 5 years is not reasonable and if approved by the RB.</p>	
19	Switzerland	General	Vienna Declaration	<p>Principle 3 How do your national requirements and regulations take into account the relevant IAEA Safety Standards throughout the</p>	<p>In the Netherlands we have always used relevant IAEA standards to develop nuclear safety standards. Currently quite a number of them are applied as licence condition in the licence of the NPP. For new reactors the Dutch Safety Requirements (DSR) have been developed on the basis of IAEA standards as well as foreign standards (like from Germany and Finland).</p>	

				life-time of a Nuclear Power Plant.	
20	Switzerland	General	Vienna Declaration	General question What issues have you faced or expect to face in applying the Vienna Declaration principles and objectives to your existing fleet or new build of Nuclear Power Plants	None so far. The next PSR-evaluation phase when the VDNS becomes applicable will be carried out 2020-2023.
21	Ukraine	General	(general questions)	Have requirements been established for risk-informed decision-making? If yes, what quantitative criteria for their application have been identified? What upgrades or administrative and technical measures have been implemented and/or planned for the ex-vessel phase of severe accidents? Is it planned to enhance qualification requirements	RIDM: no new requirements have been decided on yet. Ex-Vessel Phase of Severe Accidents: A modification is planned to install an injection line to flood the space around the reactor vessel for in-vessel retention. If in vessel retention still fails, the containment sump can be flooded to cool the corium in an ex-vessel phase. The strategies and instructions to do this will be added to the SAMGs. Enhancing Qualification Reqs: In general terms there are higher level requirements in the new Dutch Safety Requirements. In practical terms: the only qualification enhancement that is being planned is for the SFP level measurement. SAMGs And Multiple Units: n.a. (on the Borssele site there is only one unit). Dutch PSA and human errors: The increase of the number of human errors due to stress induced by an increased number of peer-reviews is not considered in the PSA.

				<p>for the design equipment involved in mitigation of severe accidents?  Does the severe accident management guideline include ranking of personnel actions in case of a severe accident at multiple units at the same time? If yes, how the technical and human resources are redistributed?  Does the methodology for determining human errors in PSA take into account additional stress caused by increase in peer reviews (internal and by external organizations)?</p>	
22	Australia	Article 6	Section 6.1.a	<p>This section states that there are 3 research reactors but previously in the introduction, it was stated that there are only 2. It appears</p>	<p>The Introduction states correctly that two RRs are in operation.</p>

				that the introduction didn't include the shutdown LFR that is currently undergoing decommissioning but this does lead to the above apparent inconsistency	
23	Germany	Article 6	6.2.a	The Dutch reports states that KCB will be equipped with digital I&C in 2017. How did the Netherlands evaluate the influence of this modification on plant safety and what were the main results?	The modernisation of the Reactor Control and Limitation System (RCLS) is initiated by the operator of KCB. RCLS concerns the safety-relevant systems (Cat.B&C), not safety systems (Cat.A) nor the non-class controls of the plant. It is mainly a 1:1 functional replacement of about 1/3 of the existing (analog) control systems of 1973. The use of aging systems presents difficulties related to maintainability and availability of spare-parts. Plant availability influence of the existing RCLS is getting more important than LTO-safety concern. Extensive reverse engineering is input for V&V-cycle of the new software along with standard Areva functions available from earlier NPP-modernisations (verification). Some additional functions from 10-year evaluation are additionally implemented. The new digital system is state of the art for this part of the plant. Extensive testing at Areva and at the full scope plant simulator is used to validate the software functions and prepare for the hot commissioning and testing period in 2017. ANVS has a team to review the engineering, V&V, testing and implementation process in the last two years before actual implementation. Design documents

					are reviewed with support of a TSO and an inspection program follows many aspects of the project. ANVS evaluates the modification as a well engineered project.	
24	Germany	Article 6	p. 36	The Netherlands reports that the owner of HFR is the Joint Research Centre (JRC) of the European Commission, but since January 2005, the license holder and operating organisation has been the Nuclear Research and Consultancy Group (NRG). Since the NRG has also a function of a TSO (technical support organization) (see Article 8, p. 72), this may lead to a conflict of interests. What measures are in place to ensure the independence and to separate the activities of licence holder and TSO within NRG?	ANVS is well aware of this. ANVS contracts TSO-services from a business unit of NRG which is dedicated to consultancy, and is not responsible for the management of the HFR operations. Furthermore NRG is not contracted to support the supervision or licensing of nuclear installations. NRG support is limited to support in the areas of policy, regulations, international affairs such as reports for the CNS, JC and NAcP stresstest. It might also be in the R&D area.	
25	Switzerland	Article 6	6.1.c/p36	Does the licence obtained for	Yes, it is possible. When Dodewaard stopped operations deferred dismanteling strategy was chosen.	

				„deferred dismantling“ of the Doodewaard NPP after 40 years of safe enclosure imply the possibility to start the dismantling after less than 40 years?	(N.B.: at present the direct dismanteling strategy is mandatory, and such a decision would not be possible anymore). The present license for the "safe enclosure" of Dodewaard is limited in time (up to 2045). Dismantling is not allowed under the current licence and a dismantling license shall be applied for, at the latest for dismantling starting in 2045.	
26	Switzerland	Article 6	6.1.f/p37	What will be the thermal power of the planned PALLAS reactor? Which kind of fuel will be used (chemical composition, enrichment)? What will be the maximum neutron flux?	Details of the design and characteristics of the PALLAS reactor are not yet available.	
27	Switzerland	Article 6	6.2.a/p38	If due to unavailability of reprocessing plants reprocessing of spent fuel from the Borssele NPP would not be possible for all fuel elements, is there the possibility to store spent fuel elements on the CORVA site?	Currently no storage at COVRA of fuel elements of NPP Borssele are foreseen or licensed. If needed a solution can probably be found.	
28	Switzerland	Article 6	6.2.a/p38	Has the confidence in the top manager of the	Yes, recently there have been changes to management. There is a new managing director and a plant manager who is the one responsible	

				Boresselle NPP and his deputy been restored by the organisational changes of 2015 and the new CEO?	for the operation of the plant. The management team and staff are satisfied with the functioning of the director. Managing director and plant manager have offices next to each other and thus have ample contact.	
29	Switzerland	Article 6	P. 38	<p>“During the OSART mission in 2014 it became clear that the NPP staff had lost confidence in the top manager and his deputy. The ANVS and the shareholders shared the same vision for the resolution, leading to a number of organization changes under an interim CEO and finally a new CEO in 2015.”</p> <p>Question: Could you specify the organizational changes referred to in the statement?</p>	The most important changes are the deletion of the position of the deputy CEO from the organisational chart and the recombination of the functions plant-manager and nuclear safety manager. Also important is the fact that the CEO now only has the NPP as his area of attention, because the coal fired plant was shutdown indefinitely.	
30	Ukraine	Article 6	Section 6.1.b, page 35	The service life of Boresselle NPP is 60 years (up to 2033). Is its lifetime extension (long-term operation) considered? Was there	The original service life was 40 years and has been extended to 60 years. The extension was based on an LTO-programme leading to a license in 2012/2013. SALTO missions took place in 2009, 2012 and 2014. Lifetime extension beyond 2033 is prohibited by law.	

				feasibility study for lifetime extension of the plant beyond 30 years?		
31	United States of America	Article 6	Existing Nuclear Installations - Appendix	A total of eleven recommendations had influence on the safety aspects of the third PSR report that resulted in EPZ needing to submit a license modification. What progress has been made in implementing these recommendations?	The implementation of PSR measures have to be completed by end 2017. Most of the measures have been implemented already or will be implemented during the extended refuelling in 2017.	
32	Australia	Article 7	Page 54	Please advise whether the risk criteria referred to here are applicable to all nuclear installations including research reactors or just the Borssele NPP? The text would seem to imply the former but please confirm. In addition, please clarify how these risk criteria integrate with	The risk criteria referred to on pag 54 are indeed applicable to all nuclear installations. They are in addition to the deterministic requirements for the safety case of reactors.	



				<p>the general IAEA requirements (which presumably input into the nuclear safety rules and the safety guidelines) for the safety case for a reactor to be deterministic in nature.</p>	
33	Switzerland	Article 7	P. 46, p. 52	<p>“Another important step will be another update of the Kew which will make the newly established Authority for Nuclear Safety and Radiation Protection, the ANVS an independent administrative authority (Dutch acronym: ZBO). It is expected that in 2017, the ANVS will have the status of a ‘ZBO’ with its own legal authorities.”  “Current regulation already provides for limited reimbursement of the RB for</p>	<p>The evaluation of the Degree has just started and will be continued in 2017. Several options to increase the contributions from LHs will be examined. The results will be available mid 2017.  Besides these contributions the regular financing of the ANVS is covered by the ministry of Infrastructure and the Environment, through a budgeting regime, specific to the ANVS.  Annually the ANVS will propose a budget to the Minister for approval.</p>

			<p>the costs of oversight and licensing. The LHs pay an annual fee and on top of this there are fees for individual licensing activities. However, currently only a limited fraction of the annual budget of the RB is collected. The objective is to increase this fraction in the coming years. Therefore new reimbursement regulation was drafted. In the new Decree the financial contribution from the nuclear installations was increased to 22 % cost coverage. The associated Decree entered into force on January 1st 2014. It will be evaluated in the second part of 2016 in order to determine if the contributions of the nuclear installations can be further increased.”</p>	
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				Question: How will the ANVS be financed after 2017 ?	
34	Croatia	Article 7.2.1	7.2 (i), 56	Safety rules on quality assurance for NPPs have been implemented as a Ministerial Decree and are based on the IAEA Safety Series (50-C/SG-Q), which are outdated and superseded by new IAEA safety standards. However, Appendix 4 lists newer IAEA Safety Requirements and Guides as applicable. Please clarify.	Since 2011 the IAEA Safety Requirements and Guides listed in Appendix 4 of the CNS-report are part of the conditions attached to the license of the NPP Bossele. This means that the licenseholder of the NPP Borssele must meet all the requirements contained therein, including the actual safety rules on quality assurance. The Ministerial Decree on Quality Assurance of NPPs is obsolete and is therefore recorded on a list to be repealed. This will be done in the short term.
35	Ireland	Article 7.2.1	Article 7.2 (ii); p 58	In the Sub-Section on Advisory Bodies it is stated that “to date there is no standing advisory committee on nuclear safety”. Is the Kingdom of the Netherlands considering the establishment of such an advisory committee?	Yes. One of the suggestions of the IRRS-mission in 2014 to the Netherlands was to “consider establishing an advisory body or bodies to give technical or other expert professional advice as necessary in support of regulatory functions”. In addition to this, the Dutch Parliament has in December 2016 requested the government in a resolution to establish an advisory body with independent, external experts for the RB. The Dutch Government embraced the resolution. At present, in line with the IRRS-suggestion and the Parliament resolution, the RB is preparing the establishment of a "Raad van Deskundigen" (Experts

					Council) which can advise the board of the RB on a broad range of issues.	
36	Ireland	Article 7.2.1	Article 7.2. (ii); p 59	In the Sub-Section on Notified Bodies it is stated that “after positive evaluation of the Notified Body by ANVS, it can be accepted by the Minister of I&M”. By what process does the ANVS evaluate a Notified Body?	<p>The process consists of:</p> <ul style="list-style-type: none"> <li>- An inspection body has to apply with the ANVS in writing for a notification (in Dutch: 'aanwijzing') for nuclear pressure equipment.</li> <li>- The Body should supply supporting evidence to the application</li> <li>- Check by ANVS on the presence and validity of notification(s) for pressure equipment (under PED or 'Warenwetbesluit')</li> <li>- Check by ANVS of the curriculum vitae on the presence and qualifications of inspectors, reviewers and experts with the inspection body</li> <li>- If necessary the ANVS can perform interviews and audits at the applicant's office.</li> </ul> <p>A notification is officially published, is valid for 2 years and may contain conditions as reporting to ANVS etc.</p>	
37	Ukraine	Article 7.2.1	Section 7.2, page 57	What computer codes are used for PSA and risk monitoring?	Some examples of codes used are: winNUPRA, Psimex, MELCOR, RELAP/MAAP, WAVCO, COSYMA	
38	Australia	Article 8	Page 69	Is there any potential for conflict of interest with ANVS working with NRG as a consultant when NRG are also the licence holders and operators of HFR at Petten? Presume that NRG are not engaged as a consultant in	ANVS is well aware of this. ANVS contracts TSO-services from a business unit of NRG which is dedicated to consultancy, and is not responsible for the management of the HFR operations. Furthermore NRG is not contracted to support the supervision or licensing of nuclear installations. NRG support is limited to support in the areas of policy, regulations, international affairs such as reports for the CNS, JC and NAcP stresstest. It might also be in the R&D area.	

				relation to regulatory activities associated with HFR and page 72 subsequently states that NRG has implemented appropriate “Chinese Wall” procedures but please confirm.		
39	Australia	Article 8	Section 8.1.h	Is there an intention for the regulatory body’s QA system to be an integrated management system and/or certified to ISO 9001 or similar?	No, currently there is not such an intention.	
40	Switzerland	Article 8	P. 68	Are the human resources adequate? What is the current situation on how the Netherlands will address this challenge?	As we stated in our national report, the current human resources are sufficient. We now have 122 FTE and several TSOs (RIVM, GRS and NRG). We can handle all the actual work, but we feel that for a robust, sustainable situation we need more staff. Based on the results of a study conducted by an external consultant the Dutch Government has decided that ANVS may grow with an additional 19 fte to 141 fte.	
41	Switzerland	Article 8	P. 72	Does a national strategy exist that supports the continuing education and training in the nuclear field?	An ANVS-strategy for knowledge management, education & training is being developed.	
42	Switzerland	Article 8	P. 72	“To date there is no standing	Examples is the past were an ad hoc commission to study the safety of the	

				<p>advisory committee on nuclear safety; an advisory committee (the Reactor Safety Commission) is formed on an ad hoc basis as required. However the ANVS at any time can install a Commission dedicated to any required issue.”</p> <p>Question: Did the ANVS in the past install a committee and on what topics?</p>	<p>Research Reactor HFR, more then 10 years ago. Recently a small ad hoc commision was installed to look at the costs of several scenario's of early closure of the NPP. In the future such ad hoc advice will be organised through the Expert Council which is now being set up.</p>	
43	Switzerland	Article 8	General	<p>How were cultural aspects addressed for the merger of several entities into the ANVS? Has it caused any problems or has it been considered as an improvement by all staff involved?</p>	<p>Before the entities merged, the management organised workshops for the staff to get better acquainted. After the merger all the staff were located in one building, mixed teams were formed and a transition program started. All of this helped to overcome cultural differences. In retrospect the staff considered the merger as an improvement.</p>	
44	United States of America	Article 8	Regulatory Body/Section 8.1.f	<p>In 2016, an evaluation of ANVS was performed to assess staffing levels, tasks, and costs.</p> <p>(1) What were the results of this evaluation?</p>	<p>As we stated in our national report, the current human resources are sufficient. We now have 122 FTE and several TSOs (RIVM, GRS and NRG). We can handle all the actual work, but we feel that for a robust, sustainable situation we need more staff. Based on the results of a study conducted by an external consultant the Dutch Government has decided that ANVS may grow with an</p>	

				(2) Has additional staff been hired to support the various regulatory functions of the ANVS?	additional 19 fte to 141 fte.	
45	France	Article 8.1	§ 8.1.j, 70	The German shutdown is mentioned as a coming challenge. What are the perspectives? Especially regarding the risk of loss of knowledge and experience?	The first perspective is the creation in 2013 of the KWUREG club and an equivalent group at the licensee side with AREVA-Germany. Since 2013 we have exchanged experiences in every annual meeting, including OE. Although the last German reactor will shutdown in 2021 the experience of German institutions like GRS and TUV will presumably be useful several years beyond that date. For the annual meeting of 2016 in Germany, AREVA Germany was invited to present the perspective as they see it in the future to keep supporting the running KWU plants. In the next years we will also have to discuss what is needed after 2021 and which German know-how has to be preserved and how. ANVS feels that it might be helpful to establish long term (10-15 years) cooperation-agreements.	
46	Germany	Article 8.1	p. 19, 8.1.g, 8.1.j	On the one hand, the report states that the operation of KCB and the plans for PALLAS and Oyster pose a financial and human resource challenge for ANVS (Introduction p. 19) and also that the	As we stated in our national report, the current human resources are sufficient. We now have 122 FTE and several TSOs (RIVM, GRS and NRG). We can handle all the actual work, but we feel that for a robust, sustainable situation we need more staff. Based on the results of a study conducted by an external consultant the Dutch Government has decided that ANVS may grow with an additional 19 fte to 141 fte.	

				<p>implementation of 2013/59/EURATOM is a “major task” for ANVS, saying that the anticipated workload as reported in section 8.1.j shows a lot of activities. On the other hand, the report states (section 8.1.g) that the resources of the regulatory body are currently adequate in terms of human resources and financing. This seems to be a contradiction. Could you elaborate on how this conclusion was drawn?</p>	
47	Ireland	Article 8.1	Article 8.1. (k); p 72	<p>In the Sub-Section on Education and Training Organisations it is stated that “Registration of radiation protection experts of the levels 2 &amp; 3 is being implemented. There are formal requirements</p>	<p>Yes, the system addresses this issue for persons from EU member states and from Norway, Iceland and Switzerland. Recognition is implemented according to EU Directive 2005/36/EC.</p>



				to obtain registration certificates for the initial education, for continuing education and for work experience”. Does this system of registration of radiation protection experts (RPEs) address the issue of mutual recognition of foreign RPEs?	
48	Ukraine	Article 8.1	Section 8.1.a, page 63	This section indicates two regulators (state nuclear regulatory body and regulatory body within another ministry). Is the separation of their functions the only assurance of independence of these regulatory bodies?	What is described is the change after 2014 from two major entities merging into one single authority (regulatory body) with all regular primary functions. Very small pockets of authority are still in for instance the ministry of health and the ministry of social affairs (labour).
49	Ukraine	Article 8.1	Section 8.1.k, page 72	This section indicates that technical support to the regulatory body is provided by foreign institutions: how national independence	National independence is not impaired by using a foreign TSO. The TSO can make a report with their own independent conclusions or recommendations, but the ANVS is the one who finally decides.

				is ensured in this case?	
50	Australia	Article 9	Page 76, Other Obligations	What are the indicators and/or criteria used to demonstrate that the Borssele NPP is “among the 25% safety water-cooled and water-moderated power reactors in the EU, the USA and Canada”?	<p>An international committee of experts in the field of nuclear safety has been installed by the covenant parties (Borssele benchmark committee). It is the committee who assesses whether the "benchmark condition" contained in the covenant is met or not. To this aim the committee developed a specific methodology. The committee reports once every 5 years to the covenant parties about its findings. In september 2013 the first report of the committee was published, including the conclusion: "Using the developed methodology the committee compared the safety of the approximately 250 plants. From this assessment the committee unanimously concluded that both in design and operations the KCB is well withingn the top 25% safest water-cooled and water-moderated reactors in the EU, USA and Canada. So the plant meets, at this moment, the condidtion in the covenant regarding its safety to continue operation."</p> <p>The next report by the committee is expected in 2018.</p> <p>For more information and detail about the work of the committee please refer to appendix 6 of the national report.</p>
51	Croatia	Article 9	Article 9, 76	It is stated that Borssele NPP has agreed to ensure to be among the twenty-five percent safest water-cooled and water-moderated power reactors in the	<p>An international committee of experts in the field of nuclear safety has been installed by the covenant parties (Borssele benchmark committee). It is the committee who assesses whether the "benchmark condition" contained in the covenant is met or not. To this aim the committee developed a specific methodology. The committee reports once every 5 years to the covenant parties about its findings. In</p>

				<p>European Union, the United States of America and Canada. How is this goal benchmarked by the regulatory body (ANVS)?</p>	<p>september 2013 the first report of the committee was published, including the conclusion: "Using the developed methodology the committee compared the safety of the approximately 250 plants. From this assessment the committee unanimously concluded that both in design and operations the KCB is well withingn the top 25% safest water-cooled and water-moderated reactors in the EU, USA and Canada. So the plant meets, at this moment, the condidtion in the covenant regarding its safety to continue operation." The next report by the committee is expected in 2018.</p> <p>For more information and detail about the work of the committee please refer to appendix 6 of the national report.</p>	
52	Switzerland	Article 9	page 78	<p>The Nuclear Energy Act includes a number of articles relating to requirements to grant a licence. In case of license transfer this Act requires that the new licence holder needs to have the necessary expertise and reliability in relation to safety. Thereby, reliability in relation to safety is also related to financial</p>	<p>Currently this is done by "engineering financial judgement". But since we are faced with more and more financial situations (e.g. low electricity prices), we have decided to recruit a financial specialist who will get tasks in the judgement of financial issues like sufficiency of resources, sufficiency of safety investments and sufficiency of decommissioning funding etc. Furthermore ANVS receives support from the Ministry of Finance when and where necessary.</p>	

				<p>solvency. Switzerland is supporting the latter statement, i.e. to understand financial solvency as a concretization of reliability in relation to safety. It does consider financial solvency of licence holder as an important prerequisite for safety during the lifetime of nuclear power installations. How does the Dutch regulator oversee/review whether the licence holder of Borssele NPP is financially solvent? What are the review methods and/or criteria used by the regulator for overseeing this issue? This question is of special interest in the context of the development of the electricity prices in Europe.</p>	
53	Switzerland	Article 9	P. 76	“With the Covenant of	An international committee of experts in the field of nuclear safety

				<p>2006, the LH of the Borssele NPP has agreed to ensure that Borssele nuclear power plant continues to be among the twenty-five percent safest water-cooled and water-moderated power reactors in the European Union, the United States of America and Canada.”</p> <p>Question: How does the LH demonstrate that fact? What are the criteria?</p>	<p>has been installed by the covenant parties (Borssele benchmark committee). It is the committee who assesses whether the "benchmark condition" contained in the covenant is met or not. To this aim the committee developed a specific methodology. The committee reports once every 5 years to the covenant parties about its findings. In september 2013 the first report of the committee was published, including the conclusion: "Using the developed methodology the committee compared the safety of the approximately 250 plants. From this assessment the committee unanimously concluded that both in design and operations the KCB is well withingn the top 25% safest water-cooled and water-moderated reactors in the EU, USA and Canada. So the plant meets, at this moment, the condidition in the covenant regarding its safety to continue operation."</p> <p>The next report by the committee is expected in 2018.</p> <p>For more information and detail about the work of the committee please refer to appendix 6 of the national report.</p>	
54	Australia	Article 10	Section 10.4	<p>Section 10.2.c identified a more systematic approach to safety culture, external assessment of safety culture and a more consistent approach to safety culture on corporate level as areas for</p>	<p>No, ANVS is more or less at the beginning stage of developping a safety culture (also having a recommendation from IRRS). We feel that the practical use of the NEA Green Booklet on safety culture for RB's is very important and have recently become a member of the ad hoc group on safety culture of the RB that followed the publication.</p>	

				<p>improvement for the operating organisation. Has a similar independent assessment of safety culture been performed for the regulatory body and if so, have any similar areas of improvement been identified?</p>		
55	France	Article 10	§ 10.4, 83	<p>Netherlands mentions that “A strong safety culture at the License Holder is an important topic in the oversight exercised by the Regulatory Body (RB). Within the RB, safety culture is build up by several parts implicitly, e.g. the application of the four eyes principle. Could Netherlands explain what this principle is about and how it contributes to strengthening safety culture?</p>	<p>The 'four eyes principle' is simply the fact that always more than one person is involved. ANVS considers this as one of the practices that contributes to safety, because it prevents one-sided views being pushed through.</p>	
56	Germany	Article 10	10.2.c	<p>The report states (10.2.c) that there was</p>	<p>The meeting took place in November 2016, about one year after the new CEO started his work amongst others</p>	

				<p>no meeting in 2015 between regulatory body and licence holder regarding safety culture and that this meeting would be scheduled for 2016. Has it by now taken place, and how did the safety culture develop, especially in the light of the “financial challenge” the licence holder is facing?</p>	<p>to improve the management and organization, including safety culture. The new CEO was a result of M&amp;O problems that came to the surface in September 2014 during an OSART mission. The IAEA-team that visited the NPP again in December 2016 for the first part of the OSART-Follow up told us that the atmosphere had much improved. The financial challenge is currently mainly with Delta the 70% shareholder. Delta has a contract with the NPP to buy the electricity at cost plus. Despite that it is important for ANVS to monitor the situation, because too low market prices for electricity may endanger indirectly also the NPP.</p>	
57	Peru	Article 10	Page 28	<p>In the safety culture section, it is described that ANVS monitor the safety culture during inspections. Has the ANVS defined elements and indicators to supervise the safety culture?</p>	<p>Yes. ANVS is using a system called KOMFORT developed in Germany. The idea is that with every inspection a small list of questions is used, on which the answers allow some interpretation or conclusion on aspects of safety culture if the right statistics (minimum number of times that the question is answered within a certain periode of time) is used.</p>	
58	Switzerland	Article 10	P. 80	<p>In view of the altered financial market conditions, does ANVS think that the current approach (“modifications are initiated if they are found to offer</p>	<p>ANVS thinks so, but of course we always should remain careful.</p>	

				sufficient safety benefits to justify their cost”) is still conducive to safety?		
59	Switzerland	Article 10	P. 81	<p>“Until recently ANVS had limited knowledge in financial matters. Due to the increased amount of work related to financial issues and nuclear safety (assessment of sufficient financial resources to implement safety requirements etc.) one FTE with specific financial expertise will be added to the ANVS staff.”</p> <p>Question: Does ANVS plan to write specific regulatory guidelines to address financial aspects regarding nuclear safety?</p>	ANVS is looking for a way to provide guidance for the interpretation of "sufficient human and financial resources".	
60	Switzerland	Article 10	P. 83, 10.4	How does ANVS ensure that its commendable efforts will improve the safety culture in the	ANVS is more or less at the beginning stage of developing a safety culture (also a recommendation from IRRS). We feel that the practical use of the NEA Green Booklet on safety culture for RBs is very important and have recently become a member of the ad	



				regulatory body?	hoc group on safety culture of the RB that followed the publication.	
61	Ukraine	Article 10	Section 10.1.b, page 80	This section indicates that NPP operation is evaluated for compliance with existing licensing requirements every two years: why this time period was selected for the evaluation?	In many countries yearly evaluations are done. It was felt that frequency would be too high. Two years was chosen instead because within 2 years, a reasonable proportion of resulting actions can be finished. Further it fits with the 10-yearly PSR: 5 times 2 covers the 10 years.	
62	Switzerland	Article 11	P. 87, 11.1 d	“According to the licence the LH has to do a periodic safety review every two years (against the current licence conditions) and a more thorough safety evaluation every ten years. This evaluation will result in a list of possible actions to improve the safety. On a basis of cost-benefit considerations, it is decided which measures from that list will be implemented within a certain timeframe.” Question: Does	Yes. ANVS will receive the evaluation every two years and does an assessment.	

				ANVS review this evaluation?		
63	Australia	Article 11.1	Section 11.1.f	Does not the requirement to decommission a nuclear facility directly after final shutdown impose an additional cost burden? Was this additional cost burden taking into consideration when passing the legislation?	At the time the strategy of “direct decommissioning” was introduced as a requirement into the regulations (2010) there was only one power reactors in operation: NPP Borssele. (Dodewaard shut down in 1997, adopted the deferred dismantling strategy, and was at that time in safe enclosure; the requirement is not applicable to the Dodewaard NPP). The “direct decommissioning” strategy had been previously discussed with the Borssele NPP and was already agreed upon. It was one of the agreements in the covenant that was signed in 2006 (allowing in principle for operation until end of 2033).	
64	Australia	Article 11.2	page 92, formal authorisation	It is not clear whether the formal authorisation process described here relates to operating staff at the Borssele NPP or if it also applies to the operating staff at the two research reactors?	There is only a formalized authorization process for the NPP.	
65	Croatia	Article 11.2	11.2.b, 91	WANO Peer Review and the preliminary results from the PSR finished in 2013 show that the scope and fidelity of plant simulator should be enhanced to	The simulator is a full scope simulator which is plant specific. The simulator is not intended and capable to perform SAMG scenarios. Recent enhancements are a new 3D core model and a new model of the primary system which enables mid-loop and open vessel operation.	

				<p>meet current state of- the-art. As it is not performed at on-site facility it seems that it is not plant specific full scope simulator. Does the simulator have the capacity to perform SAMG exercises also? If not, are there any plans to upgrade the facility to include this capability?</p>	
66	France	Article 11.2	§ 11.2.b, 91	<p>Netherlands points out concerning license holder staff that “Training programs are structured to cover required theoretical knowledge, practical training and on-the-job training”. Could Netherlands explain if there are organizational arrangements to supply a professional support from experimented people to the young</p>	<p>The training of shift personnel consists of classroom instructions, simulator training and internships in experienced shift teams. For maintenance personnel there are on-the-job training programs whereby young people are trained by experienced people.</p>

				recruited people for instance within the frame of a tutoring program?	
67	India	Article 11.2	Page 68	The National Report of Netherland has brought out challenges with the human resources for the regulatory body. Can Netherland comment on how this issue is influencing the capability of ANVS for its competence management, in particular competence in specific technical areas related to nuclear & radiation safety in the given situation. It may be noted that this is an important attribute related to effective functioning of the regulator.	In 2015 the ANVS was established by the merger of three organisations. Except for one, all ANVS-managers were newly appointed managers. In 2015 and 2016 the first aim was to settle the organisation's detailed structure and appoint teamleaders. Currently strong efforts are made to fill vacancies in the strategic and supporting department (e.g. knowledge management, strategic planning and international coordination). A study was conducted to dermine the future needs to make ANVS a sustainable and robust organisation able to deal with more tasks and areas then its predecessors. Based on the results of this study, the Government has decided that ANVS may grow with an additional 19 fte tot 141 fte. In the meantime ANVS continues to use the support of external TSOs with the main TSO being GRS, that has been supporting the Authorities for many years. The size of this support is currently at around 10-15 fte per year.
68	France	Article 12	§ 12.3, 95	Netherlands indicates that to improve the results on human performance, the plant has started a	In recent years Borssele NPP has implemented several initiatives to enhance Human Performance. These initiatives were focused on the enhancement of safety awareness among personnel. For instance during refresher courses of the operations and maintenance

				<p>Human Performance Program that covers different subjects, among which one aims at embedding the organizational aspects of Human Performance in daily operations. Could Netherlands provide detail on the measures taken to achieve this goal?</p>	<p>departments training was given in HP tools like the STAR principle (Stop Think Act Review) and how to apply STAR in the day to day work. However a coherent HP program was missing. Per January 2017 a full time HP coordinator was appointed. This coordinator has started with the definition of a HP program aimed at coherence between the different HP subjects that are brought to the attention of the personnel instead of only weakly related initiatives.</p>	
69	Germany	Article 12	p. 96	<p>The Netherlands reports that “the licence requires two formal types of self-assessment, to be reported to the regulatory body: the 2-yearly PSR and the 10-yearly PSR.” Could the Netherlands specify the difference between these two types of PSR?</p>	<p>Two yearly evaluations are about the implementation of the current licence requirements. Ten-yearly evaluations are more thorough evaluations, where also the actual developments in safety regulations and practices are evaluated.</p>	
70	Switzerland	Article 12	P. 97, 12.8	<p>Could ANVS elaborate on how the regulator follows the organisational</p>	<p>There is a licence requirement that reorganisations that might have a safety impact have to be assessed by the ANVS. The applicant has to send a dossier to show that the new organisation fulfils the requirements.</p>	

				changes and its impact on nuclear safety?	During and after implementation the ANVS inspects.	
71	Australia	Article 13	page 99	Is there any requirement for any of the licence holders' QA systems to be an integrated management system and/or certified to ISO 9001 or similar? Even without such a requirement, are any of the licence holders' QA systems certified?	<p>Having an integrated management system is a requirement for the NPP in Borssele. None of the licensees is required to be certified to ISO 9001 or similar. Below more detailed information is given.</p> <p><b>HFR Petten</b>  Requirement: The licence for the HFR indirectly refers to SSR-3 and GSR Part 2. Design Safety Series No 35-S1 is mentioned in the license, which is subsequently replaced by SSR-3. NVR 1.3, the Dutch version of the IAEA Code Safety Series 50-C-Q (1996) which is followed by GSR Part 2 now, is also mentioned in the licence.</p> <p>Practice: The HFR has a QA-management system latest certified for ISO 9001:2008. A recent INSARR-mission quoted the HFR to have a mature management system.</p> <p><b>Research reactor Delft</b>  Requirement: -  Practice: As one of the improvement measures following a 10-yearly periodic safety review an integrated management system is about to be implemented from the 1st of January 2017.</p> <p><b>Nuclear power plant Borssele</b>  Requirement: For our nuclear power plant EPZ the GS-R-3 (recently succeeded by GSR-Part 2) about the integrated MS, is part of the license.  Practice: From 2008 till 2011 EPZ was ISO certified for 14001 and 9001. In the meanwhile EPZ is ISO 14001 certified again. EPZ implemented an enhanced integrated management system. Certification against ISO 9001 is under</p>	

				<p>consideration. Certification for ISO 14001 neither 9001 is a license prerequisite.</p> <p>Nuclear waste storage facility COVRA Requirement: - Practice: COVRA revised the former integrated management system – based on GSR-3 – to meet the requirements of GS-R-Part 2 (starting in 2014 with the DS 456 draft requirements) .</p> <p>Furthermore - SSR-3 en GS-R part 2 are the IAEA requirements aiming at implementation of an integrated management system. As part of continuous improvement based on periodic safety analysis we expect licensees to adjust to new requirements. - We are not aware of a formal standard for certification of an integrated management system. - The IAEA doesn't consider the several ISO-standards like ISO 9001 / 14001 / 18001, in reviewing an IMS. - ISO 9001 primarily regards the implementation of a Quality Assurance (QA) management system. Following the IAEA this doesn't meet the integrated (process based) management system needed for research reactors.</p> <p>Having an integrated management system is a requirement for the Dutch (only) nuclear power plant in Borssele. None of the licensees is required to be certified to ISO 9001 or similar. Underneath more detailed information is given.</p> <p>Research reactor Petten Requirement: The license for the high flux reactor indirectly refers to SSR-3 and GSR Part 2. Design</p>	
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				<p>Safety Series No 35-S1 is mentioned in the license, which is subsequently replaced by SSR-3. NVR 1.3, the Dutch version of the IAEA Code Safety Series 50-C-Q (1996) which is followed by GSR Part 2 now, is also mentioned in the license.</p> <p>Practice: The high flux research reactor of NRG has a QA-management system latest certified for ISO 9001:2008. A recent INSARR-mission quoted the HFR to have a mature management system.</p> <p>Research reactor Delft Requirement: - Practice: As one of the improvement measures following a 10-yearly periodic safety review an integrated management system is about to be implemented from the 1st of January 2017.</p> <p>Nuclear power plant Borssele Requirement: For our nuclear power plant EPZ the GS-R-3 (recently succeeded by GSR-Part 2) about the integrated MS, is part of the license. Practice: From 2008 till 2011 EPZ was ISO certified for 14001 and 9001. In the meanwhile EPZ is ISO 14001 certified again. EPZ implemented an enhanced integrated management system. Certification against ISO 9001 is under consideration. Certification for ISO 14001 neither 9001 is a license prerequisite.</p> <p>Nuclear waste storage facility COVRA Requirement: - Practice: COVRA revised the former integrated management system – based on GSR-3 – to meet the requirements of GS-R-Part 2 (starting in 2014 with the DS 456 draft requirements) .</p>	
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					<p>Furthermore</p> <ul style="list-style-type: none"> <li>- SSR-3 en GS-R part 2 are the IAEA requirements aiming at implementation of an integrated management system. As part of continuous improvement based on periodic safety analysis we expect licensees to adjust to new requirements.</li> <li>- We are not aware of a formal standard for certification of an integrated management system.</li> <li>- The IAEA doesn't consider the several ISO-standards like ISO 9001 / 14001 / 18001, in reviewing an IMS.</li> <li>- ISO 9001 primarily regards the implementation of a Quality Assurance (QA) management system. Following the IAEA this doesn't meet the integrated (process based) management system needed for research reactors.</li> </ul>	
72	Pakistan	Article 13	Page 99	<p>Netherlands may like to provide information regarding audit programs of licencees including audits of vendors and suppliers.</p>	<p>Regarding LH EPZ, Borssele NPP: Borssele NPP has a four year internal audit program that is described in document PU-A02-50. The number of audits of vendors and suppliers done by the NPP is limited. Some examples of recent audits are audits of the fuel production and security audits of the safe storage and usage of safety related plant data by vendors</p> <p>Regarding LH NRG (HFR in Petten): On average, centrally coordinated, twice a year there are audits on the following topics:</p> <ul style="list-style-type: none"> <li>• Nuclear safety (thematical: ie: asset management, MoC compliancy, ageing, training/competence, criticality prevention)</li> <li>• Occupational safety</li> <li>• Quality control &amp; assurance</li> <li>• Environmental care</li> </ul>	

					<ul style="list-style-type: none"> <li>• Radiation protection</li> <li>• Licensing processes</li> <li>• Security &amp; safeguards</li> <li>• Export control</li> <li>• Fire prevention/repression</li> <li>• Information security</li> </ul> <p>Programmatically, there's flexibility in what's surveyed in between, for examples on safety leadership &amp; - culture, 360 feedback processes on personal effectiveness of leaders, deepdives into vendor's safety performance metrics, etc.</p> <p>On top, there's quarterly checks &amp; reports on project proceedings, the planning &amp; control cycle (compliance to our own annual plans) and a yearly overall 'directors review' on the performance/suitability/effectiveness of our management system.</p> <p>Units have their own local audits, very often in the QA/QC domain.</p>	
73	Switzerland	Article 13	p. 99	In the nuclear sector, there has been a change of policy in the form of a shift from simply complying with a set of rules towards performance-based Quality Management Systems (QMSs) accompanied by processes of continuous improvement. How did this step effect the oversight on Quality Assurance?	The ANVS is paying more and more attention to the QMS of the LHs. Not only by performing inspections on the QMS of the LHs but also by evaluating the effect of the QMS on the processes and products of the LHs. Or, in other words, viewing the LH as a "learning organisation".	
74	Switzerland	Article	p. 99	The use of	On the long-run the developments	

	land	le 13		critical success factors and of Performance indicators has led to a process control based on more quantitative criteria. The interfaces with safety culture and safety management have added to the complexity of the introduction of the new IMS. Do you think implementation of the new iMS has increased the safety performance of the organisation even if it got more complex?	mentioned will have a positive effect on safety. But it will take significant time to (see) demonstrate these effects quantitatively.	
75	Switzerland	Article 13	p. 99	The interface of the iMS with Human Factors is important too. One aspect is the minimum staffing level for the various sections of a LH's organisation. Do you think the licensee holder is moving towards a systemic approach to	In the Netherlands the ANVS observes that LHs are giving more attention to Individual, Technical and Organisational Factors, but not always with a fully developed systematic approach.	

				safety (ITO) when improving his Management System?	
76	Switzerland	Article 13	P. 100, 13.4	What are the main lessons ANVS learned from its inspections?	The main lessons learned by ANVS from its inspections are a clear picture of the status of nuclear safety in the Netherlands. But the ANVS also learned the relevance of a proactive approach in order to pay sufficient attention to developments, new risks or new problems.
77	Germany	Article 14	p. 101	The Netherlands reports that apart from national nuclear regulations, international codes and standards are also applied to ensure the safety of the nuclear facilities, e.g. the US Code of Federal Regulations, the US NRC Regulatory Guides, the US NRC Standard Review Plan, the ASME code, the ANS/ANSI standards, KTA standards, and RSK Recommendations. It seems that the Netherlands has quite a large choice of	The Netherlands has a relatively small nuclear programme. Therefore an important part of the regulations and guides are based on the IAEA standards transformed into Dutch NVRs or the latest DSR/VOBK. Also WENRA RL are included. On the level of industrial standards it was felt very logical to use for some aspects the German codes and recommendations because we have a German design NPP. For equipment under pressure we found it useful to take US ASME code, as most countries do. For a number of developments like EOPs, SAMGs, PSA, Technical Specifications, LTO we started to use US approaches, because they were further developed or found better. Also when PSRs became more structured it was felt that we should not only look at developments in Germany, but also in other countries. But we limited this to US, because also the Siemens design is based on US design, and many countries' regulations are also based on US regulations. The mechanism to co-ordinate is that the licensee has to propose and the regulator has to agree. There are no criteria, but it is handled case by case. Of course we watch to prevent cherrypicking.

				<p>different regulations that may be used as guidance. What mechanisms are in place to co-ordinate the application of these different guidance instruments? What are the criteria to select the most suitable one and to prevent any possible arbitrary changes later on?</p>		
78	Germany	Article 14	p. 102	<p>The Netherlands reports that “the SAR is supported by a Probabilistic Safety Analysis (PSA),...” Does this statement refer only to the NPP or also to other facilities in Netherlands, e.g. research reactors, interim fuel storages, fuel enrichment facilities?</p>	<p>The HFR also has a full scope PSA. The HOR (2 MWth) in Delft is in the process of developing its PSA. Other installations have more conventional riskanalyses.</p>	
79	Pakistan	Article 14	14.1, Page 104	<p>It is stated that a robust emergency control centre (ERC) is proposed at site which will</p>	<p>The off-site ERC will be equipped with the Safety Parameter Display System (SPDS). This system functions continuously and collects a small part of the process data. The SPDS registers the parameters that are coming from the part of the</p>	

				<p>be backed up by an off-site facility situated at least 10 km away from the NPP under the stress test. Netherlands may like to elaborate which plant parameters (for monitoring and control) will be available in the off-site ERC.</p>	<p>installation which is resistant against hazards and contains the essential plant parameters necessary to assess the status of the plant, including onsite dose rates.</p>	
80	Switzerland	Article 14	i	<p>In which way has the maximum flood level been determined? How is the plant's resistance against a superstorm?</p>	<p>A comprehensive probabilistic flood hazard analysis has been done supported by the university of Delft. The maximum on-site flood level is determined by a close study of the maximum level on the river (Wester Schelde) combined with the characteristics of the site. Heavy storms credible for the location have been taken into account in the study as well as possibilities to create tsunamis.</p>	
81	Switzerland	Article 14	i	<p>How is the emergency response team organized and who does it consist of?</p>	<p>A multidisciplinary team of on-call personnel from different departments headed by a Site Emergency Director.</p>	
82	Switzerland	Article 14	i	<p>Appendix 9 Action No. 16, 17 What are the mentioned improvements in terms of increased autarky time? When will they be implemented?</p>	<p>Implementation of an automatic start of the back up ultimate heat sink system (wells) and automatic start of the back up SFP cooling system. These measures will be implemented before 1-7-2017.</p>	
83	Switzerland	Article 14	i	<p>Usually, several TSO's</p>	<p>ANVS is well aware of this. We have two TSOs: NRG and GRS. In</p>	

				can work for both the regulator and operator. How is the independence of TSO's and their expertise ensured in order to avoid interest conflicts?	the Netherlands, GRS is only working for the ANVS. ANVS also contracts TSO-services from a business unit of NRG which is dedicated to consultancy and is not responsible for the management of the HFR operations. Furthermore NRG is not contracted to support the supervision or licensing of nuclear installations. NRG support is limited to support in the areas of policy, regulations, international affairs such as reports for the CNS, JC and NAcP stresstest. It might also be in the R&D area.	
84	Switzerland	Article 14	i	How are the PSA (probabilistic safety analysis) and DSA (deterministic safety analysis) connected / interacting in the decision-making process?)	DSA and PSA are complementary. The regulations have risk criteria for the environment and population that have to be fulfilled. DSA analyses have to be done in the safety report too. Further PSA plays a role in deciding about the effectiveness of investments to reduce the risk or improve the safety. The RB has until now no so-called Risk Informed Decision Making procedure. Developments in the past have been cancelled in 2012.	
85	Switzerland	Article 14	ii	How does the reporting procedure to ANVS in case of an event e.g. equipment failure look like?	the reporting categories have been included in the Technical Specifications (TS). If a reportable event occurs, licensee EPZ must report this digitally to the 'Meld en Informatie centrum (MIC)', a department of the ANVS which processes all reportable events in its 'Holmes' system in which event reports and inspection reports are administered. On top of this the consigned inspector will be informed.	
86	Switzerland	Article 14	ii	Are on-site inspectors deployed by ANVS?	There are no site-inspectors in the Netherlands, but we have designated plant-inspectors and a deputy. They are responsible for the execution of plant specific supervision activities. They are only on-site to do inspections and audits or conduct	

					meetings related to supervision. During refuelling the plant inspector becomes more or less a site inspector and some more inspectors are present in daytime and if necessary on other times.	
87	Switzerland	Article 14	P. 106	Is there an ANVS-strategy that defines which type of expertise has to be covered by ANVS staff and which might be outsourced in order to be able to assess and verify safety?	The predecessor organizations of the ANVS had thought about it and recruited accordingly. A new ANVS-strategy for knowledge management, education and training is being developed. There will also be developed an associated human resources plan.	
88	Australia	Article 14.1	Section 14.(i)	The preparation of a separate SR and SAR sounds like a good way of meeting the public's requirement for openness and transparency whilst also maintaining appropriate confidentiality of security, commercial and proprietary information. However, what burden does it impose upon both the licence holder and the regulatory body to	We also find this approach very valuable. It indeed does impose a burden upon both parties - the documents need to be maintained and verified in relation to each other. However, the benefit of meeting the public's requirement for openness and transparency, whilst maintaining the confidentiality of information, makes the extra effort worthwhile.	



				maintain two documents up to date and verify their correctness.	
89	Australia	Article 14.1	page 104	<p>The final bullet point states that the 2 hours to connect a large mobile diesel generator includes the time taken to move the generator to the site but is this realistic following an extreme external event that could have resulted in significant damage to roads etc. offsite, preventing the ready movement of such a generator? Note also that in such an extreme external event, offsite emergency responders may themselves be degraded due to the extreme external event and may also have multiple competing demands on their services.</p>	<p>The mobile diesel generator and tractor are stored at an onsite location. Onsite fire fighters have been trained to move the generator to it's hook-up point. The two hours connection time refers to this mobile generator.</p>

90	Croatia	Article 14.1	14 (i), 102	It is stated that in 2011 the updated NVRs were implemented based on at that moment new PSR corresponding IAEA safety standard NS-G-2.10. New IAEA PSR standard SSG-25 dates 2013 and is significantly different. Are there any plans to update national regulation to take this into account?	The SSG-25 came too late for the PSR. Several PSR modifications have been licensed in 2015. Then also in the license SSG-25 was included, replacing NS-G-2.10.	
91	India	Article 14.1	Page 102	Can Netherlands elaborate on the scope of two yearly PSR and ten yearly PSR followed in Netherlands? How is the outcome of two yearly PSR applied in regulatory process?	Two-yearly evaluations are about the implementation of the current licence requirements. Ten-yearly evaluations are more thorough evaluations, where also the actual developments in safety regulations and practices are evaluated.	
92	Ukraine	Article 14.1	page 102	Was IAEA SSG-25 "Periodic Safety Review for Nuclear Power Plants" (2013) taken into account in the development	The SSG-25 came too late for the PSR. Several PSR modifications have been licensed in 2015. Then also in the license SSG-25 was included, replacing NS-G-2.10.	

				of new national nuclear safety rules (NVR) on periodic safety review?	
93	Ukraine	Article 14.1	Section 14.(i), page 101	This section indicates that a license is required for construction, operation, modification or decommissioning of a nuclear facility in the Netherlands. Is a license required for the design of a nuclear facility?	No. The design of a nuclear facility is reviewed as part of the review for the application for the construction licence.
94	France	Article 14.2	Appendix 2, 157	Regarding probabilistic safety analysis (PSA), can Netherlands precise which internal and external events are taken into account? What are the design modifications deriving from the last PSA?	All usual and site specific external events are included in the PSA. In the present PSA earthquakes are globally taken into account since the risk and maximum severity for the site are low. Following the stress test a more thorough seismic analysis is presently being performed (SMA). Design mods: a measure to prevent spurious opening of the containment sump valves in both trains due to a fire in the bunkered area; change of criteria in procedures to start of primary feed and bleed earlier; a possibility to open the primary safety valves from the ECR.
95	Belgium	Article 15	Figure 10, page 179	The collective dose for external workers is substantially higher than the collective dose for EPZ-personnel and	Most of the work in the controlled area is done by external workers during plant outages. Therefore the collective dose for external workers is higher than the dose for plant personnel.

				constitutes more than 2/3 of the collective dose. Can you please provide some more information on the reasons for this difference.	
96	Switzerland	Article 15	P. 112	<p>“As prescribed in the licence, all discharges of radioactive effluents must be monitored, quantified and documented. The LH must report the relevant data on discharges and radiological exposure to the RB. On behalf of the RB, the National Institute for Public Health and the Environment (RIVM) regularly checks the measurements of the quantities and composition of discharges.”</p> <p>Question: Are the documented radioactive discharges made public (for example on the internet)?</p>	<p>The reports of the LHs on radioactive discharges are not published on the internet. However they are available on request. Furthermore the data are available (summarised) in internationally available national reports of the Netherlands like those published for the CNS and OSPAR.</p> <p>The reports from RIVM about the results of the checks are published on the website of RIVM. For example: "Contra-expertise op bepalingen van de radioactiviteit van afvalwater en ventilatielucht van de kernenergiecentrale Borssele: periode 2013" i.e. check of measurements of radioactivity in effluent and emissions of NPP Borssele 2013'</p>

97	Germany	Article 16	p. 113	The Netherlands reports on the on-site emergency plans for the Borssele NPP. What are the emergency measures for other facilities?	The other facilities follow the same approach, but using a graded approach.	
98	Germany	Article 16	p. 116	The Netherlands reports on larger exercises, which incorporate the participation of the various governmental organisations at local, regional and national levels. Are these exercises dedicated only to the Borssele NPP, or do they also involve other facilities, e.g. research reactors, interim fuel storages, fuel enrichment facilities?	The full-scale exercises are usually with NPP Borssele. Other larger scale exercises, on various levels, are conducted with NPP Borssele every year. With other facilities they are conducted on an ad-hoc basis.	
99	Pakistan	Article 16	Page 116, Para 4	It is stated that “Scenarios are controlled using the plant’s full scope simulator (located in Essen, Germany), though it is	All scenarios in the preventive domain including beyond design scenarios up to the onset of core melt can be trained on the full scope simulator. This simulator is not able to run core melt scenarios, but a PC based plant specific simulator (RELAP model) that is also available can.	

				<p>noted that this cannot simulate severe accidents”. Please elaborate how the emergency procedures, plans and analytical tools will be verified and validated under simulated severe conditions prior to use.</p>		
100	Switzerland	Article 16	General	<p>Very good and detailed overview about actions on Post-Fukushima Daiichi measures and lessons learnt is been given in the appendices 9 and 10. The report states that iodine tablets have been pre-distributed in the emergency planning zones. How is it ensured that people who are moving into one of the mentioned planning zones will get the iodine tablets? Did the people get any kind of</p>	<p>The plan for the distribution of iodine tablets is being finalised. Meanwhile, in the current approach it is assumed that when moving to and registering in a certain municipality, the municipality will give people information on availability of iodine tablets. Successively people will get their tablets from the local pharmacies.</p>	

				information about using the tablets?	
101	United States of America	Article 16	NCS response plan	<p>The National Crisis Plan for Radiation Incidents and the Response Plan will be updated in 2016 and 2018 due to the implementation of the Basic Safety Standards.</p> <p>(1) What progress has been made in updating these plans?</p> <p>(2) After these plans are updated, will an emergency exercise be conducted to test these plans?</p>	<p>1) The first update of the National Crisis Plan for Radiation Incidents and the Response Plan entails the description of changes in ministerial responsibilities, organisational changes and the changes in intervention levels and preparation zones. This update is being finalized and will be published in the first half of 2017. The second update is planned for 2018, and will entail more major changes, due to the implementation of the Basic Safety Standards.</p> <p>2) The first update will be used in the upcoming large scale national exercise planned early 2018. The second update will be used for the later emergency exercises, these exercises have not been scheduled yet.</p>
102	Australia	Article 16.1	page 115, SAM facilities	<p>Similar to the previous comment, is the time taken to set up the ERO and for it to become operational (45 minutes and 30 minutes respectively) realistic during or following an extreme external event that may have severely degraded the offsite infrastructure,</p>	<p>Yes, this will be possible in most situations as the earthquake risk for this region is not high. For flooding of the site it might be impossible. But the basic design of the plant already guarantees enough flood protection that makes urgent intervention of the ERO unlikely.</p>

				preventing staff located offsite from being able to access the site?	
103	Croatia	Article 16.1	16.1.a, 115	Alternative Emergency Control Room (ECR), for managing a controlled shutdown, core cooling and spent fuel pool cooling, is bunkered and has gas-tight doors, but does not have a filtered air supply. What is the autonomy time for ECR?	The autonomy time of the ECR is basically 72 hours.
104	Ireland	Article 16.1	Section 16.1.a; p 114	The National Report notes that work is required on the SAMGs to address scenarios deriving from severe external hazards, such as earthquakes and floods, where there is the imminent potential for core melt. Can the Kingdom of the Netherlands provide a definitive timeline for this work to be completed?	EPZ already has a set of SAMGs in place, including a SAMG for the spent fuel pool. The plant's SAMGs are based on the generic WOG SAMGs. The generic SAMGs give strategies to protect the fission barriers independent from the cause of the condition. Therefore it is undesirable to add specific earthquake or flood extensions to the SAMGs. In 2017 the set of SAMGs will be reviewed against the most recent version of the generic WOG SAMGs including the newest Fukushima insights that were added to the generic SAMGs.



10 5	Ireland	Article 16.1	Section 16.1.a; p 114	It is noted that the SAMGs include guidance for using the pressure relief valves and various pressuriser spray options to control the Reactor Pressure Vessel (RPV) pressure. Do these actions require human intervention?	Yes, but preferably from the MCR or ECR, no local actions.	
10 6	Ireland	Article 16.1	Section 16.1.a; p 115	Can the Kingdom of the Netherlands provide further details on the type of real-time data and process information (plant information) that is supplied to the ANVS in an emergency situation?	In case of an emergency a direct (secure) link is created manually to the process presentation system of the nuclear power plant. In this case all plant parameters are real-time available for the experts in the ANVS Task Force.	
10 7	Ireland	Article 16.1	Section 16.1.a; p 115	Can the Kingdom of the Netherlands provide details on the planned measures to improve the ERC facilities in 2017?	In the CSA ('stress test') it was assumed that the existing ERC was not earthquake and flood resistant and too close to the plant to be available in case of APC. The earthquake resistance has been proved and is no issue anymore. The flood resistance cannot be enhanced at the present location and therefore a backup ERC is arranged on a high level at the plant. The APC resistance will be guaranteed with an additional offsite backup ERC.	

108	Ireland	Article 16.1	Section 16.1.a; p 116	Can the Kingdom of the Netherlands provide some details and a timeline for completion of the LH's work on the Extensive Damage Mitigation Guidelines (EDMGs)?	<p>In the first half of 2017 the AOPs and EOPs and SAMGs will be revised. In the second half of 2017 EPZ will start the development of EDMGs a detailed planning is not yet available.</p> <p>EPZ started a project with Westinghouse to expand the severe accident management procedures. Flexible supporting guidelines (FSGs) for mobile equipment will be implemented in this project. The planning is to finalize this July 1st 2017.</p>	
109	Ireland	Article 16.2	Section 16.2.a; p 123	As part of the Kingdom of the Netherlands arrangements to inform the public about emergency planning and emergency situations, certain parts of governmental websites (containing comprehensive set of questions and answers) will be open to the public in emergency situations. Has this functionality been tested during emergency exercises and will the system cope with an increase in web traffic during an	<p>Crisis.nl, Nlalert.nl are the Dutch governmental websites that are important means of communication when there is an emergency response situation. They are frequently tested, like NL Alert on December 5th 2016. The safety regions have their own websites 'Zeeland Veilig', 'Rijnmond Veilig', and 'Limburg Veilig'. These have been functionally tested during emergency excercises and real incidents. Until the end of 2016 Crisis.nl has had 5 miljoen 'hits' or page views.</p>	

				emergency?	
110	Ireland	Article 16.2	Section 16.2.a; p 123	Can the Kingdom of the Netherlands provide details on how they plan to deal with social media platforms to inform the public during emergency situations?	Crisis.nl, Nlalert are the Dutch governmental websites that are important means of communication when there is an emergency response situation. They also provide for social media communication and function as a local, national and regional account. They are also used for training and exercise purposes, on local, regional and national scale.
111	Switzerland	Article 16.2	P. 123, 16.2 b	Does ANVS plan to develop a specific communication strategy during emergency conditions (work with the press, information of the general public, information in Dutch and in English?)	In the Netherlands, the communication during emergency situations targets audiences like those affected by the emergency, the press and the general public. It has the following 3 purposes: (1) provide background information on incident, mentioning of choices, dilemmas regarding preparing for or executing direct or indirect measures, (2) Mitigate consequences for those potentially to be affected by giving instructions, (3) Explaining the crisis situation and its possible consequences for various groups, and putting the emergency situation and its consequences into perspective to better explain them. The ANVS is responsible for communication until the national response structure has been upscaled. After that the National Communication Centre (NCC) takes over, with the same communication strategy as described above.
112	Switzerland	Article 17	p. 126	It is stated that the resulting risks of extreme weather conditions has been evaluated in the	Tornados (and wind): Statistical data from NUREG/CR-4461 eastern USA (conservatively) considered applicable for the Dutch situation. Seismic: Only screening analysis performed. Seismic Hazard Curve: Aardbevingsstudie voor de locatie

				<p>Probabilistic Safety Assessment. How were the hazard curves for the various extreme weather conditions (wind, rain, etc.) which were implemented in the PSA derived?</p>	<p>Borssele / Earthquake studies for location Borssele, Zeeland, Concept. Grondmechanica Delft, Mar. 1990, CO- 282361/13.          Flooding: Official RWS exceedance line for the Dutch coast (year 2006) [4.3-47]. 12, corrected for the specific location.          Shipping accidents: TNO Report Update of External Events Analysis, B&amp;O-A R2005/285.</p>	
113	Switzerland	Article 18	18.(i) / 134	<p>Regarding the implementation of design measures or changes with the objective of preventing beyond design basis accidents, the regulatory body conducted studies related to SBO at mid-loop. SBO scenarios (not at mid-loop) analyzed in Switzerland showed that the available time for intervention to prevent core damage is very short. Could you please outline how a SBO at mid-loop is managed at Borssele NPP?</p>	<p>SBO-midloop is managed with new separate SBO procedures for power and shut down (including mid-loop) modes. These procedures are WOG based. During SBO the available plant systems are used supplemented by mobile equipment. The use of this mobile equipment is guided by FLEX support procedures.</p> <p>For more information refer to our national report page 104: "Station blackout while in midloop operation, improve the emergency injection from the buffertanks (discussed during the Country Peer review); formal instruction has been implemented in 2013 and 2014 after testing at the plant simulator and training.          A modification plan for the operation of the motor operated valves in case of a SBO has been compiled and will be implemented in 2017."</p>	
11	Switzerland	Article	18.(i) /	A further	IVR is one of the PSR modifications	

4	land	le 18	135	improvement to mitigate beyond design basis accidents is the planned implementation of In Vessel Retention (IVR). Please elaborate on the relevant systems and components of the IVR.	that will be implemented during the 2017 outage. After this mod the narrow space around the reactor vessel can be flooded by use of a pump and passively by the water in the containment sump. The steam that is produced will be vented from the containment by the existing filtered containment vent.	
115	Switzerland	Article 18	P. 133	What is the foreseen timespan for improvements of the margins regarding earthquakes?	EPZ is working on several seismic studies. The robustness of the SSCs against the updated seismic hazard is ongoing. Following this, ANVS asked EPZ to get an overview of the margins with respect to this updated hazard. A report on this is foreseen in 2017. It is planned to complete all stress-test measures by end 2017.	
116	Australia	Article 18.1	page 132, safety analysis	A minor inconsistency but the first sentence states that the Borssele NPP SR is a 2 volume document whereas previously under Article 14, it had been identified as a single volume document.	It is 2 volumes.	
117	Switzerland	Article 19	19.(iii)/p 141	How are major changes defined in the context of the EOPs/SAMGs ? Which major changes were approved by the ANVS	For a lot of years there were no major changes. With the latest PSR/Stresstest some more activity is going on, but the changes in EOP/SAMP were not considered major. There is not really a definition. It is judged case by case.	

				during the last three years?		
118	Switzerland	Article 19	19.(iii)/p 141	Which areas of expertise are represented in the External Reactor Safety Committee (ERSC) of the Borssele NNP?	The ERBVC of the Borssele NPP is a committee that consists of a chairman and several members. The Committee has knowledge and/or experience on the following areas: - Reactor technology and -operation; - Reactor physics and thermal hydraulics; - Radiation protection; - Safety analysis; - Human performance and safety culture.	
119	Switzerland	Article 19	19.(vii)/p 146	Who are the addressees of the intensified reporting and informing about incidents in neighbouring countries? Is the public included?	The ANVS shall provide information to the parlement on a yearly basis. Information sent to parlement is always public. Furthermore, with Belgium there are now agreements to provide information about incidents, even those below the formal reporting threshold, to the regional authorities and the ANVS.	
120	Switzerland	Article 19.3	P. 141	What are the intervals of exchange between ANVS and ERSC (yearly? When required?)?	None. ANVS undertakes inspection of the functioning of the ERSC.	
121	Australia	Article 19.4	Section 19.(iv)	The 4th paragraph states that there is a datalink between the Borssele NPP plant and the simulator located in Essen such that the simulator can access real-time data and that	The datalink between the simulator in Essen and the ANVS Task Force is established manually (switch) when it is needed. The data is sent by using a dedicated Integrated Service Digital Network 2 line.	

				<p>datalinks also enable the plant data to be accessed by the regulatory body and AREVA. However, are these secure and dedicated datalinks or do they make use of the internet?</p>	
12 2	Switzerland	Article 19.5	P. 143	<p>Are there any plans to extend the supervision of ANVS on the subject of qualification of technical support organisations for the LH?</p>	<p>The LH of the Dutch NPP is implementing a relatively large modification program. The AVNS pays much attention to the QMS of LH and the QMSs of the TSOs involved. And, to be more specific, the ANVS focuses on the interfaces between the QMSs of the LH and TSOs.</p>
12 3	France	Article 19.7	§ 19.(vii), 145 and 146	<p>Netherlands shares important experience with international bodies and with other operating organizations and regulatory bodies. Could Netherlands specify how many events were registered on IRS database per year?</p>	<p>Since 1981, 30 events have been reported to the IRS database. The number of events per year has been stable, varying between 0 and 3 per year.</p>