

**Table 1: Description of exercise**

Description of exercise	Phase 1
<b>Description of Method(s) used</b>	Chronological description based on selected reports. Comprehensive reports allowed selection of best accident sequence presentation with most complete background.
<b>Accident(s) studied</b>	Fukushima Daiichi, 11/03/2011, nuclear power plant triple reactor core melt caused by Tohoku earthquake and tsunami with huge radiological contamination of wide land and sea area.
<b>References used by the team, including tools, websites, publications.</b>	Selected national (Japan) and international reports. See below in Table 4
<b>Expectations of outcomes</b>	Provide complete and concise accident description. Compare approaches and results from major assessments. Suggest favorable approach.

**Table 2: Findings relevant to the accident and report information**

What was the result of this process?	How did this phase meet your expectations?
e.g., -findings -questions, gaps in information that you hope to resolve in the next steps -scope of the investigation -limitations imposed by information available -potential themes already emerging -gaps in information	It is not yet clear how to make generalization from particular accident analysis approach to the general accidents perspective. <b>Scope of the investigation reports:</b> Accident was fully analyzed from technical to organizational perspective. <b>Findings from report:</b> Non report has applied any particular method for accident analysis. Reports are comprehensive and provide sufficient details about accident. <b>Limitations of the report:</b> Number of detailed reports present challenge for review. <b>Potential themes emerging:</b> Better formulation of the proper/optimal accident analysis approach problem. <b>Questions or gaps in information that you hope to resolve in the next steps:</b> How can we show that specific lessons learned have more general value? How analysis is influenced by stakeholders and is there common approach?
<b>If you were an investigator or inspector, what questions would you ask the site following this analysis?</b>	Why they did not considered temporary tsunami protection measures while waiting for more certain estimates of expected tsunami hazard (i.e., water protection for auxiliary safety power source)?

**Table 3: Findings relevant to the method**

<b>Summary of experience working with the method(s)</b>	There was no particular method besides collecting available information, putting them together and making expert judgment.
<b>Advantages</b>	Simple.
<b>Disadvantages</b>	Demanding and without guaranty for comprehensiveness.
<b>Advice for analysts/inspectors using this (these) method(s)</b>	Independent review is critical.

**Table 4: Reference materials - List of Links**

<b>Date</b>	<b>Title</b>	<b>Link</b>	<b>Comment</b>
2011-	Timelines of the Fukushima Daiichi nuclear disaster, different sources	<a href="https://en.wikipedia.org/wiki/Timeline_of_the_Fukushima_Daiichi_nuclear_disaster">https://en.wikipedia.org/wiki/Timeline_of_the_Fukushima_Daiichi_nuclear_disaster</a> <a href="http://www.scientificamerican.com/media/multimedia/0312-fukushima-timeline/">http://www.scientificamerican.com/media/multimedia/0312-fukushima-timeline/</a> <a href="https://www.oecd-nea.org/news/2011/NEWS-04.html">https://www.oecd-nea.org/news/2011/NEWS-04.html</a>	Examples
May 2011	Technical Lessons Learned from the Fukushima-Daichii Accident and Possible Corrective Actions for the Nuclear Industry: An Initial Evaluation, MIT	<a href="http://web.mit.edu/nse/pdf/news/2011/Fukushima_Lessons_Learned_MIT-NSP-025.pdf">http://web.mit.edu/nse/pdf/news/2011/Fukushima_Lessons_Learned_MIT-NSP-025.pdf</a>	22pp
Nov. 2011	Special Report on the Nuclear Accident at the Fukushima Daiichi Nuclear Power Station, INPO 11-005	<a href="http://www.nrc.gov/docs/ML1134/ML11347A454.pdf">www.nrc.gov/docs/ML1134/ML11347A454.pdf</a>	104pp
2011-2015	Actions in Response to the Japan Nuclear Accident: Additional and International Reports, US NRC	<a href="http://www.nrc.gov/reactors/operating/ops-experience/japan/japan-international-reports.html">http://www.nrc.gov/reactors/operating/ops-experience/japan/japan-international-reports.html</a>	Collection
Feb. 2012	Lessons from Fukushima, Greenpeace	<a href="http://www.greenpeace.org/international/en/publications/Campaign-reports/Nuclear-reports/Lessons-from-Fukushima/">http://www.greenpeace.org/international/en/publications/Campaign-reports/Nuclear-reports/Lessons-from-Fukushima/</a>	52pp
March 2012	Why Fukushima Was Preventable, The Carnegie Papers	<a href="http://carnegieendowment.org/2012/03/05/why-fukushima-was-preventable-pub-47361">http://carnegieendowment.org/2012/03/05/why-fukushima-was-preventable-pub-47361</a>	50pp
June 2012	Fukushima Nuclear Accident Analysis Report, TEPCO	<a href="http://www.tepco.co.jp/en/press/corp-com/release/betu12_e/images/120620e0104.pdf">http://www.tepco.co.jp/en/press/corp-com/release/betu12_e/images/120620e0104.pdf</a>	503pp
June 2012	Fukushima Daiichi: ANS Committee Report	<a href="http://fukushima.ans.org/report/Fukushima_report.pdf">http://fukushima.ans.org/report/Fukushima_report.pdf</a>	48pp
July 2012	Investigation Committee on the Accident at the Fukushima Nuclear Power Stations, Japan government	<a href="http://www.cas.go.jp/jp/seisaku/icanps/eng/final-report.html">http://www.cas.go.jp/jp/seisaku/icanps/eng/final-report.html</a>	48pp (executive summary)
March 2012	Fukushima, one year later, Initial analysis of the accident and its consequences, IRSN	<a href="http://www.irsn.fr/EN/publications/technical.../IRSN_Fukushima-1-year-later_2012-003.pdf">www.irsn.fr/EN/publications/technical.../IRSN_Fukushima-1-year-later_2012-003.pdf</a>	188pp
Sept. 2011	Japanese earthquake and tsunami: Implications for UK nuclear industry, ONR, HSE	<a href="http://www.onr.org.uk/fukushima/final-report.pdf">www.onr.org.uk/fukushima/final-report.pdf</a>	315pp
Sept. 2012	The Fukushima Nuclear Accident and Crisis Management, Lessons for Japan-U.S. Alliance Cooperation, The Sasakawa Peace Foundation	<a href="https://www.spf.org/e/publication/detail/8271.html">https://www.spf.org/e/publication/detail/8271.html</a>	135pp
Oct. 2012	Japanese earthquake and tsunami: Implementing the lessons for the UK's nuclear industry, ONR, Sept. 2011HSE	<a href="http://www.onr.org.uk/fukushima/implementation-report-oct-2012.pdf">www.onr.org.uk/fukushima/implementation-report-oct-2012.pdf</a>	384pp
2012	The Fukushima Nuclear Accident Independent Investigation Commission, Executive Summary, The National Diet of Japan	<a href="https://www.nirs.org/fukushima/naaic_report.pdf">https://www.nirs.org/fukushima/naaic_report.pdf</a>	88pp

<b>Date</b>	<b>Title</b>	<b>Link</b>	<b>Comment</b>
2013	The Fukushima Daiichi Nuclear Power Plant Accident, OECD/NEA Nuclear Safety Response and Lessons Learnt, OECD NEA	<a href="https://www.oecd-nea.org/fukushima/">https://www.oecd-nea.org/fukushima/</a> <a href="https://www.oecd-nea.org/nsd/pubs/2016/7284-five-years-fukushima.pdf">https://www.oecd-nea.org/nsd/pubs/2016/7284-five-years-fukushima.pdf</a>	69pp
2013	Levels and effects of radiation exposure due to the nuclear accident after the 2011 great east-Japan earthquake and tsunami, Volume I Report to the General Assembly Scientific Annex A, UNSCEAR	<a href="http://www.unscear.org/unscear/en/publications/2013_1.html">http://www.unscear.org/unscear/en/publications/2013_1.html</a> <a href="http://www.unscear.org/unscear/en/fukushima.html">http://www.unscear.org/unscear/en/fukushima.html</a>	321pp
2013	Fukushima Daiichi Accident Study Information Portal, Public Content Report, INL, ORNL, SNL	<a href="https://fukushima.inl.gov/PDF/FDASIP-Ver-7.pdf">https://fukushima.inl.gov/PDF/FDASIP-Ver-7.pdf</a>	77pp
2014-2016	Japan Lessons Learned, US NRC	<a href="http://www.nrc.gov/reactors/operating/ops-experience/japan-dashboard.html">http://www.nrc.gov/reactors/operating/ops-experience/japan-dashboard.html</a>	Collection
2015	The Fukushima Daiichi Accident, Report by the IAEA DG,	<a href="http://www-pub.iaea.org/books/iaeabooks/10962/the-fukushima-daiichi-accident">http://www-pub.iaea.org/books/iaeabooks/10962/the-fukushima-daiichi-accident</a>	1254pp
July 2016	Fukushima Accident, World Nuclear Association	<a href="http://www.world-nuclear.org/information-library/safety-and-security/safety-of-plants/fukushima-accident.aspx">http://www.world-nuclear.org/information-library/safety-and-security/safety-of-plants/fukushima-accident.aspx</a>	Collection
2016	Five Years after the Fukushima Daiichi Accident, Nuclear Safety Improvements and Lessons Learnt, OECD NEA	<a href="https://www.oecd-nea.org/nsd/pubs/2016/7284-five-years-fukushima.pdf">https://www.oecd-nea.org/nsd/pubs/2016/7284-five-years-fukushima.pdf</a>	80pp