ASAMPSA_E SEVENTH FRAMEWORK PROGRAMME	Advanced Safety Assessment Methodologies: extended PSA	EURATOM

"NUCLEAR FISSION"

Safety of Existing Nuclear Installations

Contract 605001

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Summary :

The deliverable D21.1 includes existing international and national guidance documents on natural hazard assessment and a selection of recent scientific papers, which are regarded to provide useful information on the state of the art of external event modelling. The literature database is therefore subdivided into International Standards, National Standards, and Science Papers. The deliverable will be updated as necessary during the lifetime of ASAMPSA-E. The current content of the database is about 140 papers. Most of the articles are available as full-text versions in PDF format.

The deliverable is available as an *EndNote* X4 database as well as a collection of full text files in PDF format which are available at the ASAMPSA_E FTP server hosted by IRSN in the folder: "\ASAMPSA_E\01_WP21_External_Hazards\D21_1 Bibliography".

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SUMMARY

The bibliography of deliverable D21.1 includes existing international and national guidance documents and standards on external hazard assessment together with a selection of recent scientific papers, which are regarded to provide useful information on the state of the art of external event modelling.

The literature database is subdivided into International Standards, National Standards, and Science Papers. The deliverable is treated as a "living document" which is regularly updated as necessary during the lifetime of ASAMPSA-E. The current content of the database is about 140 papers. Most of the articles are available as full-text versions in PDF format.

The deliverable is available as an *EndNote* X4 database and as text files. The database includes the following information: Reference, Key words, Abstract (if available), PDF file of the original paper (if available), Notes (comments by the ASAMPSA_E consortium if available)

The database is stored at the ASAMPSA_E FTP server hosted by IRSN in the folder:
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- Folder: *ASAMPSA-E-WP21-D21_1_Existing_Guidance_PDF* – the PDF files of original papers

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5	Lloyd's Register Consulting	LRC	Sweden
6	Nuclear Research Institute Rez pl	UJV	Czech
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9	Italian National Agency for New Technologies, Energy and the Sustainable Economic Development	ENEA	Italy
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12	Electricité de France	EDF	France
13	Lietuvos energetikos institutas (Lithuanian Energy Institute)	LEI	Lithuania
14	NUBIKI	NUBIKI	Hungary
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	Tokyo Electric Power Company	TEPCO	Japan
	Japan Nuclear Safety Institute	JANSI	Japan

CONTENT

GLOSSARY

ASN	Autorité de Sûreté Nucléaire
CNSC	Canadian National Safety Commission
EPRI	Electric Power Research Institute
IAEA	International Atomic Energy Agency
GRS	Gesellschaft für Reaktorsicherheit
KTA	Kerntechnischer Ausschuss
NEA-OECD	Nuclear Energy Agency within the Organisation for Economic Co-operation and Development
RHWG	Reactor Harmonisation Working Group
USNRC	United States Nuclear Regulatory Commission
WENRA	Western European Nuclear Regulators Association

1 INTRODUCTION

The present document provides a database of references on existing guidance for external event modelling. The following types of papers are collected:

1. Internationally accepted guidelines published by IAEA, NEA-OECD and WENRA-RHWG on:
    a. external event assessment;
    b. safety analysis;
    c. fragility assessment;
    d. design.
2. National guidelines, regulations and safety standards for the assessment of different types of external hazards including papers published by ASN, CNSC, EPRI, GRS, KTA, USNRC and others.
3. Scientific papers: selected key papers on the assessment of different types of external hazards.

Chapter 2 presents the available formats of the database and information of the location of the files. The complete reference list is provided in chapter 3 and chapter 4 and contains - per reference - all information stored in the database.

2 BIBLIOGRAPHY

2.1 ENDNOTE DATABASE

EndNote is the industry standard software tool for publishing and managing bibliographies, citations and references on the Windows and Macintosh desktop[1]. The literature database includes the standard bibliographic data (author, year of publication, journal, editor etc.) along with key words, abstracts (if available), PDF files of the full paper (available for most of the papers), and links to web addresses of online papers (URL, *uniform resource locator*).

The *EndNote* X4 database is divided into 3 groups:

- International Standards: international guidelines and safety standards (30 documents)
- National Standards: national guidelines, regulations and safety standards (54 documents)
- Scientific Papers: selected recent key papers on hazard assessment (95 papers)

The database is available at the ASAMPSA_E FTP server hosted by IRSN:
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The *EndNote* X4 database consists of the File *ASAMPSA-E-WP21-D21_1_Existing_Guidance.enl* and the Folder "*ASAMPSA-E-WP21-D21_1_Existing_Guidance.Data*"

2.2 TEXT FILE AND COLLECTION OF PDF FILES

To ensure accessibility of the bibliography for users not deploying the *EndNote* software, a reference list (chapter 3 of this report, page 15) together with a collection of PDF files has been compiled. PDF file names refer to the first author (or editing organisation) of the paper as cited in the reference list.

The PDF files are available at the ASAMPSA_E FTP server hosted by IRSN and can be found in the folder "*ASAMPSA-E-WP21-D21_1_Existing_Guidance_PDF*". For completeness, chapter 4 lists all information – per reference - contained in the Endnote database.

[1] Access to the bibliographic database can further be obtained by downloading a free version of *EndNote* from the website http://www.endnote.com/ by clicking on "download trial version". This trial version gives limited read/write access for a period of 30 days. After expiration of this period, the program continues to work legally and indefinitely as a viewer for *EndNote* databases.

3 REFERENCES : CONTENTS OF THE BIBLIOGRAPHY

3.1 INTERNATIONAL STANDARDS

IAEA, 1979. Earthquakes and Associated Topics in Relation to Nuclear Power Plant Siting. Safety Guide 350-SG-S1, 69pp.

IAEA, 1993. Defining Initiating Events for Purposes of Probabilistic Safety Assessment. Tecdoc 719, 150pp.

IAEA, 1993. Probabilistic safety assessment for seismic events. Tecdoc 724, 51pp.

IAEA, 1995. Treatment of external Hazards in Probabilistic Safety Assessments for Safety Assessment for Nuclear Power Plants. Safety Practices 50 P-7.

IAEA, 2002. External Human Induced Events in Site Evaluation for Nuclear Power Plants. Safety Guide NS-G-3.1, 49.

IAEA, 2003. Consideration of external events in the design of nuclear facilities other than nuclear power plants, with emphasis on earthquakes. Tecdoc 1347, 113pp.

IAEA, 2003. Earthquake experience and seismic qualification by indirect methods in nuclear installations. Tecdoc 1333, 98pp.

IAEA, 2003. External Events Excluding Earthquakes in the Design of Nuclear Power Plants. Safety Guide NS-G-1.5, 105pp.

IAEA, 2003. Extreme External Events in the Design and Assessment of Nuclear Power Plants. Tecdoc 1341, 109pp.

IAEA, 2003. Flood Hazard for Nuclear Power Plants on Coastal and River Sites. Safety Guide NS-G-3.5, 83pp.

IAEA, 2003. Meteorological Events in Site Evaluation for Nuclear Power Plants. Safety Guide NS-G-3.4, 34pp.

IAEA, 2003. Seismic Design and Qualification for Nuclear Power Plants. Safety Guide NS-G-1.6, 59pp.

IAEA, 2003. Seismic Evaluation of Existing Nuclear Power Plants. Safety Report Series 28, 60pp.

IAEA, 2003. Site Evaluation for Nuclear Installations. Safety Requirements NS-R-3, 28pp.

IAEA, 2004. Geotechnical Aspects of Site Evaluation and Foundations for Nuclear Power Plants. Safety Guide NS-G-3.6, 53pp.

IAEA, 2006. Fundamental Safety Principles. Safety Fundamentals SF-1, 37pp.

IAEA, 2007. Development and Application of Level 1 Probabilistic Safety Assessments for Nuclear Power Plants. Safety Guide SSG-3, 192pp.

IAEA, 2007. Terminology Used in Nuclear Safety and Radioprotection. IAEA Safety Glossary 2007 Edition, 238pp.

IAEA, 2009. Evaluation of Seismic Safety for Existing Nuclear Installations. Safety Guide NS-G-2.13, 66pp.

IAEA, 2009. Safety Assessment for Facilities and Activities. General Safety Requirements GSR Part 4, 56pp.

IAEA, 2010. Deterministic Safety Analysis for Nuclear Power Plants. Specific Safety Guide SSG-2, 62pp.

IAEA, 2010. Seismic Hazards in Site Evaluation for Nuclear Installations. Specific Safety Guide SSG-9, 60pp.

IAEA, 2011. Meteorological and Hydrological Hazards in Site Evaluation for Nuclear Installations Specific Safety Guide SSG-18, 146pp.

IAEA, 2012. Safety of Nuclear Power Plants: Design. Specific Safety Requirements SSR-2/1, 66pp.

IAEA, 2012. Volcanic Hazards in Site Evaluation for Nuclear Installations. Specific Safety Guide SSG-21, 106pp.

IAEA, 2014. Superseded Standards and Obsolete Standards. 21pp.

NEA-OECD, 2009. Probabilistic Safety Analysis (PSA) of Other External Events than Earthquake. NEA NEA/CSNI/R(2009), 4pp.

WENRA, 2013. Statement Safety of new NPP designs. 6pp.

WENRA-RHWG, 2013. Report Safety of new NPP designs. Study by Reactor Harmonization Working Group RHWG, 52pp.

WENRA-RHWG, 2014. WENRA Safety Reference Levels for Existing Reactors. Update in Relation to Lessons Learned from TEPCO Fukushima Dai-ichi Accident. 52pp.

3.2 NATIONAL STANDARDS

ASME/ANS, 2009. Addenda to ASME/ANS RA-S-2008 Standard for Level 1/Large Early Release Frequency Probabilistic Risk Assessment for Nuclear Power Plant Applications, 342pp.

ASN, 1980. Prise en compte des risques liés aux chutes d'avions. Règles fondamentales de sûreté relatives aux réacteurs à eau sous pression. Règle No. 1.2.a (5 aout 1980), 2pp.

ASN, 1982. Prise en compte des risques liés à l'environnement industriel et aux voies de communication. Règles fondamentales de sûreté relatives aux réacteurs à eau sous pression. Règle No. I.2.d (7 mai 1982), 10pp.

ASN, 1985. Site geological and geotechnical studies, determination of soil characteristics and soil response studies. Basic Safety Rules Rule No. I.3.c (1 aout 1985), 10pp.

ASN, 2001. Fundamental safety rule n°2001-01 concerning basic nuclear installations. Determination of the seismic risk for the safety of surface basic nuclear installations. Basic Safety Rule n°2001-01, 14pp.

ASN, 2013. Protection des installations nucléaires de base contre les inondations externes. Guides de l'ASN Guide No 13, 44pp.

Atomic Energy Society of Japan, 2011. Implementation Standard Concerning the Tsunami Probabilistic Risk Assessment of Nuclear Power Plants: 2011, AESJ Standards.

Authority, H.A.E., 2014. Nukleáris létesítmények telephely- vizsgálatának és -értékelésének módszertana (Methodology for Site Investigation and Evaluation of Nuclear Installations). Regulatory Guide 7.1.

Nuclear Regulation Authority (NRA), 2013. New Regulatory Requirements for Light-Water Nuclear Power Plants - Outline. 28pp.

Byrne, J.P., 1997. The calculation of aircraft crash in the UK. AEA Technology plc Contract Research Report 150/1997, 93pp.

CNSC, 2008. Design of New Nuclear Power Plants. Acts and Regulations RD-337.

CNSC, 2008. Site Evaluation for New Nuclear Power Plants. Acts and Regulations RD-346.

Canadian Nuclear Safety Commission, 2008. Design of New Nuclear Power Plants. Acts and Regulations RD-337.

Canadian Nuclear Safety Commission, 2014. Design of Reactor Facilities: Nuclear Power Plants. Regulatory Document REGDOC-2.5.2, 183pp.

Canadian Nuclear Safety Commission, 2014. Probabilistic Safety Assessment (PSA) for Nuclear Power Plants. Regulatory Document REGDOC-2.4.2, 13.

Ebisawa, K., Kamae, K., Annaka, T., Tsutsumi, H., Onouchi, A., 2014. Revision of the AESJ Standard for Seismic Probabilistic Risk Assessment (2) Seismic Hazard Evaluation, PSAM 12 - Probabilistic Safety Assessment and Management, 22-27 June 2014, Sheraton Waikiki, Honolulu, Hawaii, USA, p. 8.

EPRI, 1991. A Methodology for Assessment of Nuclear Power Plant Seismic Margin (Revision 1). Technical Report NP-6041-SLR1, 794pp.

EPRI, 2003. Seismic Probabilistic Risk Assessment Implementation Guide. Technical Report 1002989, 182pp.

EPRI, 2013. Seismic Probabilistic Risk Assessment Implementation Guide. Technical Report 3002000709.

GRS, 1980. Einwirkungen von außen (einschließlich anlageninterner Brände), in: Reaktorsicherheit, G.f. (Ed.), Deutsche Risikostudie Kernkraftwerke. Verlag TÜV Rheinland, p. 320.

Headquarters for Earthquake Research Promotion, 2014. Evaluation of occurrence potentials of subduction-zone earthquakes. http://www.jishin.go.jp/main/p_hyoka02_kaiko.htm.

Headquarters for Earthquake Research Promotion, 2014. Evaluations of Active Faults. http://www.jishin.go.jp/main/p_hyoka02_danso.htm.

Japan Nuclear Safety Institute, 2013. Assessment Methods for Nuclear Power Plant against Fault Displacement. JANSI-FDE-03 rev. 1, 53pp.

Japan Nuclear Safety Institute, 2013. Assessment Methods for Nuclear Power Plant against Fault Displacement. JANSI-FDE-01 rev.1, 180pp.

Kirimoto, Y., Yamaguchi, A., Ebisawa, K., 2013. Standardized Procedure for Tsunami PRA by AESJ. E-Journal of Advanced Maintenance 5, 62-79pp.

KTA, 1990. Design of Nuclear Power Plants Against Seismic Events Part 2: Subsurface Materials (Soil and Rock). KTA 2201.2, 9pp.

KTA, 2011. Auslegung von Kernkraftwerken gegen seismische Einwirkungen Sicherheitstechnische Regel des KTA KTA 2201.1, 8pp.

KTA, 2011. Auslegung von Kernkraftwerken gegen seismische Einwirkungen Teil 2: Baugrund. Sicherheitstechnische Regel des KTA KTA 2201.2., 15pp.

KTA, 2011. Design of Nuclear Power Plants against Seismic Events; Part 1: Principles. Safety Standards KTA 2201.1., 7pp.

Nuclear Regulation Authority (NRA), 2013. Outline of New Regulatory Requirements For Light Water Nuclear Power Plants (Earthquakes and Tsunamis). 32pp.

STUK, 2002. Seismic Events and Nuclear Power Plants. Guide YVL 2.6., 9pp.

The Tsunami Evaluation Subcommittee, The Nuclear Civil Engineering Committee, JSCE, 2002. Tsunami Assessment Method for Nuclear Power Plants in Japan. 73pp.

USNRC, 1981. Identification of potential hazards in site vicinity. Standard Review Plan NUREG-0800, 4pp.

USNRC, 1983. PRA Procedures Guide. A Guide to Performance of Probabilistic Risk Assessments for Nuclear Power Plants. NUREG/CR-2300, Chapters 1-8.

USNRC, 1983. PRA Procedures Guide. A Guide to the Performance of Probabilistic Risk Assessments for Nuclear Power Plants. NUREG/CR-2300, Chapters 9-13, 183pp.

USNRC, 1984. Probabilistic Safety Analysis Procedures Guide. NUREG/CR 2815, 240pp.

USNRC, 1985. An Approach to the Quantification of Seismic Margins in Nuclear Power Plants. NUREG/CR-4334, 322pp.

USNRC, 1986. Recommendations To The Nuclear Regulatory Commission On Trial Guidelines For Seismic Margin Reviews Of Nuclear Power Plants: Draft Report for Comment. NUREG/CR-4482, UCID-20579, 104pp.

USNRC, 1988. An Approach to the Quantification of Seismic Margins in Nuclear Power Plants: The Importance of BWR Plant Systems and Functions to Seismic Margins. NUREG/CR-5076, UCRL-15985, 33pp.

USNRC, 1989. Evaluation of external hazards to nuclear power plants in the United States: Other external events. NUREG/CR 5042, 238pp.

USNRC, 1991. Procedural and Submittal Guidance for the Individual Plant Examination of External Events (IPEEE) for Severe Accident Vulnerabilities NUREG-1407, 98pp.

USNRC, 1992. Methods for external event screening quantification: Risk methods integration and evaluation program (RMIEP) methods development. NUREG/CR 4839, 130pp.

USNRC, 1996. Impact of structural aging on seismic risk assessment of reinforced concrete structures in nuclear power plants. NUREG/CR 6425, 69pp.

USNRC, 1997. Recommendations for Probabilistic Seismic Hazard Analysis: Guidance on Uncertainty and Use of Experts. NUREG/CR 26372, 280pp.

USNRC, 2002. Structural Seismic Fragility Analysis of the Surry Containment. NUREG/CR 6783, 136pp.

USNRC, 2004. Parametric Evaluation of Seismic Behavior of Freestanding Spent Fuel Dry Cask Storage Systems. NUREG/CR 6865, 422pp.

USNRC, 2007. A Performance-Based Approach to Define the Site-Specific Earthquake Ground Motion. Regulatory Guide 1.208, 53pp.

USNRC, 2012. The Estimation of Very-Low Probability Hurricane Storm Surges for Design and Licensing of Nuclear Power Plants in Coastal Areas. NUREG-CR 7134, 109pp.

USNRC, 2012. Guidance for Performing a Tsunami, Surge, or Seiche Hazard Assessment. JLD-ISG 2012-06, 52pp.

USNRC, 2012. Guidance for Performing the Integrated Assessment for External Flooding. JLD-ISG 2012-05, 87pp.

USNRC, 2012. NRC Collection of Abbreviations NUREG 0544, 133pp.

USNRC, 2012. Practical Implementation Guidelines for SSHAC Level 3 and 4 Hazard Studies. NUREG 2117, 227pp.

USNRC, 2013. Guidance for Assessment of Flooding Hazards Due to Dam Failure Interim Staff Guidance Revision 0. Japan Lessions-Learned Project Directorate JLD-ISG-2013-01, 114pp.

USNRC, 2013. Guidance for Performing a Tsunami, Surge, or Seiche Hazard Assessment Interim Staff Guidance Revision 0. Japan Lessions-Learned Project Directorate JLD-ISG-2012-06, 52pp.

3.3 SCIENCE PAPERS

Alatorre-Ibarguengoitia, M., Ramos-Hernández, S., Jiménez-Aguilar, J., 2014. Hazard map for volcanic ballistic impacts at El Chichón volcano (Mexico). Geophysical Research Abstracts 16, EGU2014-7787.

Albarello, D., Camassi, R., Rebez, A., 2001. Detection of Space and Time Heterogeneity in the Completeness of a Seismic Catalogue by a Statistical Approach: An Application to the Italian Area. Bulletin of the Seismological Society of America 91, 1694-1703.

Annaka T., S., K., Sakakiyama, T.,Yanagisawa, K., Shuto, N., 2007. Logic-tree Approach for Probabilistic Tsunami Hazard Analysis and its Applications to the Japanese Coasts. Pure and Applied Geophysics 164, 577-592.

Arnaud, F., Revel, M., Chapron, E., Desmet, M., Tribovillard, N., 2005. 7200 years of Rhone river flooding activity in Lake Le Bourget, France: a high-resolution sediment record of NW Alps hydrology. The Holocene 15, 420-428.

Arnaud, F., Révillon, S., Debret, M., Revel, M., Chapron, E., Jacob, J., Giguet-Covex, C., Poulenard, J., Magny, M., 2012. Lake Bourget regional erosion patterns reconstruction reveals Holocene NW European Alps soil evolution and paleohydrology. Quaternary Science Reviews 51, 81-92.

Arnaud, F., Wilhelm, B., Giguet-Covex, C., Jenny, J.P., Fouinat, L., Sabatier, P., Debret, M., Révillon, S., Chapron, E., Revel, M., 2014. Holocene geological records of flood regime in French Alps. Geophysical Research Abstracts 16.

Bareith, A., Elter, J., Karsa, Z., Siklossy, T., 2014. External Events PSA for the spent fuel pool of the Paks NPP, PSAM 12 - Probabilistic Safety Assessment and Management, 22-27 June 2014, Sheraton Waikiki, Honolulu, Hawaii, USA, p. 10.

Bernadara, P., Parey, S., 2012. Methodological Guide for the Study of Extreme Statistics. EDF R&D H-P73-2008-04551-EN, 85.

Bernardara, P., Andreewsky, M., Benoit, M., 2011. Application of regional frequency analysis to the estimation of extreme storm surges. Journal of Geophysical Research 116.

Bonnet, J., Fradet, T., Traversa, P., Tuleau-Malot, C., Reynaud-Bouret, P., Lalooe, T., Manchuel, K., 2014. Completeness period analysis of SisFrance macroseismic database and interpretation in the light of historical context. Geophysical Research Abstracts 16.

Brinkman, J.L., 2014. Realistic Modelling of External Flooding Scenarios: A Multi-Disciplinary Approach, PSAM 12 - Probabilistic Safety Assessment and Management, 22-27 June 2014, Sheraton Waikiki, Honolulu, Hawaii, USA, p. 10.

Busini, V., Derudi, M., Rota, R., 2014. Safety of LPG rail transportation: influence of safety barriers, PSAM 12 - Probabilistic Safety Assessment and Management, 22-27 June 2014, Sheraton Waikiki, Honolulu, Hawaii, USA, p. 7.

Čepoin, M., Cizelj, L., Leskovar, M., Mavko, B., 2006. Vulnerability Analysis of a Nuclear Power Plant Considering Detonations of Explosive Devices. Journal of Nuclear Science and Technology 43, 1258-1269.

Cesca, S., Dost, B., Oth, A., 2013. Preface to the special issue “Triggered and induced seismicity: probabilities and discrimination”. Journal of Seismology 17, 1-4.

Chang, C.W., Lin, P.S., Tsai, C.L., 2011. Estimation of sediment volume of debris flow caused by extreme rainfall in Taiwan. Engineering Geology 123, 83-90.

Chapron, E., Desmet, M., De Putter, T., Loutre, M.F., Beck, C., Deconinck, J.F., 2002. Climatic variability in the north-western Alps, France, as evidenced by 600 years of terrigenous sedimentation in Lake Le Bourget. The Holocene 12, 177-185.

Choi, I.K., Kim, M.K., Rhee, H.M., 2014. Probabilistic Tsunami Hazard Analysis for Nuclear Power Plants on the East Coast of Korean Peninsula, PSAM 12 - Probabilistic Safety Assessment and Management, 22-27 June 2014, Sheraton Waikiki, Honolulu, Hawaii, USA, p. 8.

Denissenko, P., Didenkulova, I., Rodin, A., Listak, M., Pelinovsky, E., Experimental statistics of long wave runup on a plane beach. Journal of Coastal Research Special Issue No. 65, 195-200.

Ebisawa, K., Kamae, K., Annaka, T., Tsutsumi, H., Onouchi, A., 2009. Current status and important issues on seismic hazard evaluation methodology in Japan. Nuclear Engineering and Technology 41, 1223-1234.

Fiorucci, P., Biondi, G., Campo, L., D'Andrea, M., 2014. High resolution fire risk mapping in Italy. Geophysical Research Abstracts 16.

Frère, A., D., C., Gailler, A., Hébert, H., 2014. Sea level surges of June 2011 in the NE Atlantic Ocean: observations and possible interpretation. Natural Hazards

Fukushima, Y., 2010. PSHA for near-site earthquakes with sources difficult to be specified in advance, AV-20, First Kashiwazaki International Symposium on Seismic Safety of Nuclear Installations 24-26 November 2010. Kashiwazaki, Japan, p. 27.

Gaume, E., Bain, V., Bernardara, P., et al., 2009. A compilation of data on European flash floods. Journal of Hydrology 367, 70-78.

Gaume, E., 2014. Flash floods in Europe: state of the art and research perspectives. Geophysical Research Abstracts 2014.

Griffith, R., 2010. What is the maximum credible event for hazard division 1.6 explosive articles?, Department of Defense Explosives Safety Board Seminar (34th) held in Portland, Oregon on 13-15 July 2010, Portland, Oregon, p. 24.

Hahm, D., Shin, S.S., Choi, I., 2014. Preliminary Assessment of the Probabilistic Risk of Nuclear Power Plant against to the Aircraft Impact Loading, PSAM 12 - Probabilistic Safety Assessment and Management, 22-27 June 2014, Sheraton Waikiki, Honolulu, Hawaii, USA, p. 10.

Hakata, T., 2013. Development of TsunamioSeismic PSA Software for Nuclear Power Plants in Multi-Unit Site, PSAM2013-1053, PSAM Topical Conference in Tokyo, 14-18 April 2013. Tokyo, Japan, p. 19.

Hanks, T.C., Abrahamson, N.A., Boore, D.M., Coppersmith, K.J, Knepprath, N.E., 2009. Implementation of the SSHAC Guidelines for Level 3 and 4 PSHAs - Experience Gained from Actual Applications. U.S. Geological Survey Open File Report 2009-1093, 66.

Hassel, M., Bouwer Utne, I., Vinnem, J.E., 2014. Analysis Of The Main Challenges With The Current Risk Model For Collisions Between Ships and Offshore Installations On The Norwegian Continental Shelf, PSAM 12 - Probabilistic Safety Assessment and Management, 22-27 June 2014, Sheraton Waikiki, Honolulu, Hawaii, USA, p. 12.

Helander, J., 2014. Maritime oil spill risk assessment for Hanhikivi nuclear power plant, PSAM 12 - Probabilistic Safety Assessment and Management, 22-27 June 2014, Sheraton Waikiki, Honolulu, Hawaii, USA, p. 12.

Holla, K., Ristvej, J., 2014. Verification of Risk Assessment and Treatment model and Software tool in Chemical Establishments in Slovak Republic, PSAM 12 - Probabilistic Safety Assessment and Management, 22-27 June 2014, Sheraton Waikiki, Honolulu, Hawaii, USA, p. 10.

Ingegneria, N., 2013. Hazards and threats ontology. Unpublished Report Project reference number : HOME/2011/CIPS/AG/4000002102, 6.

IPCC, 2013. Climate Change 2013 - The Physical Science Basis.

Irie, K., Dan, K., Ikutama, S., Irikura, K., 2010. Improvement of Kinematic Fault Models for Predicting Strong Motions by Dynamic Rupturing Simulation, AV-16, First Kashiwazaki International Symposium on Seismic Safety of Nuclear Installations, 24-26 November 2010. Kashiwazaki, Japan, p. 26.

Jamnani, H.H., Karbassi, A., Lestuzzi, P., 2013. Fling-step effect on the seismic behaviour of high-rise RC buildings during the Christchurch earthquake, 2013 NZSEE Conference, p. 6.

Jänkälä, K., Rantatainen, L., Vaurio, J., 2004. Severe Weather Risk Assessment for Loviisa Power Plant, in: Spitzer, C., Schmocker, U., Dang, V.N. (Ed.), PSAM 7 - ESREL 2004: Probabilistic Safety Assessment and Management. Springer, 14-18 June 2004, Hotel-Intercontinental Berlin, Germany, pp. 1510-1515.

Japan, N.R.A., 2013. Outline of New Regulatory Requirements for Light Water Nuclear Power Plants (Provisional Translation).

Jones, A.F., Macklin, M.G., Brewer, P.A., 2012. A geochemical record of flooding on the upper River Severn, UK, during the last 3750 years. Geomorphology 179, 89-105.

Kagawa, T., 2010. Probabilistic Approach Using Characteristic Source Model for Strong Motion Estimation, AV-15, First Kashiwazaki International Symposium on Seismic Safety of Nuclear Installations 24-26 November 2010. Kashiwazaki, Japan, p. 35.

Kalkan, E., Kunnath, S.K., 2006. Effects of Fling Step and Forward Directivity on Seismic Response of Buildings. Earthquake Spectra 22, 367-390.

Kämäräinen, M., Kahma, K.K., Jokinen, O., Johansson, M.M., Särkkä, J., 2014. Modelling the variations and extremes of the sea level on the Finnish coast in the Baltic Sea. Geophysical Research Abstracts 16.

Knochenhauer, M., Louko, P., 2003. Guidance for External Events Analysis. SKI Report 02:27.

Kuramoto, T., Yamaguchi, A., Narumiya, Y., Ota, T., Mamizuka, Y., 2014. Development of Implementation Standard Concerning the Risk Evaluation Methodology Selection for the External Hazards, PSAM 12 - Probabilistic Safety Assessment and Management, 22-27 June 2014, Sheraton Waikiki, Honolulu, Hawaii, USA, p. 12.

Lin, C.W., Chang, W.S., Liu, S.H., Tsai, T.T., Lee, S.P., Tsang, Q.C., Shieh, C.L., Tseng, C.M., 2011. Landslides triggered by the 7 August 2009 Typhoon Morakot in southern Taiwan. Engineering Geology 123, 3-12.

Lin, J., 2014. Insights from the Risk Analysis of a Nearby Propane Tank Farm, PSAM 12 - Probabilistic Safety Assessment and Management, 22-27 June 2014, Sheraton Waikiki, Honolulu, Hawaii, USA, p. 12.

Lin, J.C., 2014. Insights from the Analyses of Other External Hazards for Nuclear Power Plants, PSAM 12 - Probabilistic Safety Assessment and Management, 22-27 June 2014, Sheraton Waikiki, Honolulu, Hawaii, USA, p. 12.

Lin, J.C., Wakefield, D.J., Reddington, J., 2014. Screening of Seismic-Induced Fires, PSAM 12 - Probabilistic Safety Assessment and Management, 22-27 June 2014, Sheraton Waikiki, Honolulu, Hawaii, USA, p. 11.

Lovelace, N., Johnson, M., Lloyd, M., 2014. Approach for Integration of Initiating Events into External Event Models, PSAM 12 - Probabilistic Safety Assessment and Management, 22-27 June 2014, Sheraton Waikiki, Honolulu, Hawaii, USA, p. 6.

Marsaro, M.F., Alencar, M.H., de Ameida, A.T., Cavalcante, C.A.V., 2014. Multidimensional risk evaluation: assigning priorities for actions on a natural gas pipeline, PSAM 12 - Probabilistic Safety Assessment and Management, 22-27 June 2014, Sheraton Waikiki, Honolulu, Hawaii, USA, p. 7.

McGuire, R.K., 2009. Issues in Probabilistic Seismic Hazard Analysis for Nuclear Facilities in the US. Nuclear Engineering and Technology 41, 1235-1242.

Melnick, D., Cisternas, M., Moreno, M., Norambuena, R., 2012. Estimating coseismic coastal uplift with an intertidal mussel: calibration for the 2010 Maule Chile earthquake (Mw = 8.8). Quaternary Science Reviews 42, 29-42.

Merino, M., Stein, 'S., Adams, J., Submitted. Have We Seen the Largest Earthquakes 1 in Eastern North America? Bulletin of the Seismological Society of America, 22.

Mori, N., Janssen, P., 2006. On Kurtosis and Occurrence Probability of Freak Waves. Journal of Physical Oceanography 39, 1471-1483.

Muramatsu, K., Takada, T., Nishida, A., Uchiyama, T., Muta, H., Furuya, O., Fujimoto, S., Itoi, T., 2014. Study on Next Generation Seismic PRA Methodology (1): Program Plan and Proposal of New Mathematical Framework (Presentation Only), PSAM 12 - Probabilistic Safety Assessment and Management, 22-27 June 2014, Sheraton Waikiki, Honolulu, Hawaii, USA, p. 1.

Nakamura, S., Yoshida, I., Shinoda, M., Kawai, T., Nakamura, H., Murata, M., 2014. The next-generation risk assessment method about the effect of a slope and foundation ground on a facility in a nuclear power plant, PSAM 12 - Probabilistic Safety Assessment and Management, 22-27 June 2014, Sheraton Waikiki, Honolulu, Hawaii, USA, p. 9.

Narumiya, Y., Hirano, M., Takada, T., Hayashi, K., 2014. Revision of the AESJ Standard for Seismic Probabilistic Risk Assessment (1): Extension and enhancement of accident scenario, PSAM 12 - Probabilistic Safety Assessment and Management, 22-27 June 2014, Sheraton Waikiki, Honolulu, Hawaii, USA, p. 9.

Nasir, A., Lenhardt, W., Hintersberger, E., Decker, K., 2013. Assessing the completeness of historical and instrumental earthquake data in Austria and the surrounding areas. Austrian Journal of Earth Sciences 106, 90-102.

Nekrasova, A., Kossobokov, V., Peresan, A., Magrin, A., 2014. The comparison of the NDSHA, PSHA seismic hazard maps and real seismicity for the Italian territory. Natural Hazards 70, 629–641.

Nikolkina, I., Didenkulova, I., 2011. Rogue waves in 2006–2010. Natural Hazards and Earth System Sciences 11, 2913–2924.

Nikolkina, I., Didenkulova, I., 2012. Catalogue of rogue waves reported in media in 2006–2010. Natural Hazards 61, 989–1006.

Nöggerath, J., Geller, R.J., Gusiakov, V.K., 2011. Fukushima: The myth of safety, the reality of geoscience. Bulletin of the Atomic Scientists 67, 37-46.

O'Brien, L., Dudley, J.M., Dias, F., 2013. Extreme wave events in Ireland: 14 680 BP–2012. Natural Hazards and Earth System Sciences 13, 625-648.

Okumura, K., 2010. Evaluation of Near-site Active Faults and Effects on the Site Based on Geological Structures, AV-14, First Kashiwazaki International Symposium on Seismic Safety of Nuclear Installations 24-26 November 2010. Kashiwazaki, Japan.

Onorato, M., Osborne, A.R., Serio, M., Damiani, T., 2001. Occurrence of Freak Waves from Envelope Equations in Random Ocean Wave Simulations, Proceedings Rogue Waves 2000.

Ortner, G., Reitner, J., 2009. Bestimmung des Alters eines Augleys im Lurnfeld mittels Radiokohlenstoffdatierung. Mitteilungen der Österreichischen Bodenkundl. Gesellschaft 76, 31-36.

Parey, S., Malek, F., Laurent, C., Dacunha-Castelle, D., 2007. Trends and climate evolution: Statistical approach for very high temperatures in France. Climatic Change 81, 331-352.

Parey, S., Huong Hoang, T.T., Dacunha-Castelle, D., 2010. Different ways to compute temperature return levels in the climate change context. Environmetrics 2010.

Parey, S., Huong Hoang, T.T., Dacunha-Castelle, D., 2013. The importance of mean and variance in predicting changes in temperature extremes. JOURNAL OF GEOPHYSICAL RESEARCH 118, 1-12.

Petersen, M.D., Dawson, T.E., Chen, R., Cao, T., Wills, C.J., Schwartz, D.P., Frankel, A.D. , 2011. Fault Displacement Hazard for Strike-Slip Faults. Bulletin of the Seismological Society of America 101, 805-825.

Reinhardt, J.C., Daniels, M., Paté-Cornell, M.E., 2014. Probabilistic Analysis of Asteroid Impact Risk Mitigation Programs, PSAM 12 - Probabilistic Safety Assessment and Management, 22-27 June 2014, Sheraton Waikiki, Honolulu, Hawaii, USA, p. 12.

Rovida, A., D'Amico, V., Meletti, C., Stucchi, M., 2011. Assessing the completeness of SHEEC, the SHARE European Earthquake Catalogue. 7.

Saito, K., Takeuchi, M., Uemura, T., Yamanaka, Y., 2014. Seismic PRA for Kashiwazaki-Kariwa NPP, PSAM 12 - Probabilistic Safety Assessment and Management, 22-27 June 2014, Sheraton Waikiki, Honolulu, Hawaii, USA, p. 10.

Saito, K., Takeuchi, M., Uemura, T., Yamanaka, Y., 2014. Tsunami PRA for Kashiwazaki-Kariwa NPP, PSAM 12 - Probabilistic Safety Assessment and Management, 22-27 June 2014, Sheraton Waikiki, Honolulu, Hawaii, USA, p. 9.

Satake, K., 2013. The 2011 Tohoku Earthquake and Tsunami Hazard Assessment, PSAM2013-1094, PSAM Topical Conference in Tokyo, 14-18 April 2013. Tokyo, Japan, p. 46.

Shou, K.J., JHong, C.Y., Wu, C.C., Hsu, H.Y., Fei, L.Y., Lee, J.F., Wei, C.Y., 2011. Spatial and temporal analysis of landslides in Central Taiwan after 1999 Chi-Chi earthquake. Engineering Geology 123, 122-128.

Smaddar, S., Hibino, K., Coman, O., 2014. Technical Approach for Safety Assessment of Multi-Unit NPP Sites Subject To External Events, PSAM 12 - Probabilistic Safety Assessment and Management, 22-27 June 2014, Sheraton Waikiki, Honolulu, Hawaii, USA, p. 8.

Sörman, J., Bäckström, O., Yang, L., Kuzmina, I., Lyubarskiy, A., El-Shanawany, M., 2014. Method for Analysing Extreme Events, PSAM 12 - Probabilistic Safety Assessment and Management, 22-27 June 2014, Sheraton Waikiki, Honolulu, Hawaii, USA, p. 9.

Staid, A., Guikema, S.D., Nateghi, R., Quiring, S.M., Gao, M.Z., 2014. Simulation Methods to Assess Long-Term Hurricane Impacts to U.S. Power Systems, PSAM 12 - Probabilistic Safety Assessment and Management, 22-27 June 2014, Sheraton Waikiki, Honolulu, Hawaii, USA, p. 10.

Storen, E., Paasche, O., 2014. Scandinavian floods: From past observations to future trends. Global and Planetary Change 113, 34-43.

Swierczynski, T., Kämpf, L., Müller, P., Lauterbach, S., Brauer, A., Merz, B., 2014. A high-resolution flood chronology recovered from varved sediments of Lake Mondsee of the last 7000 years and the triggering mechanisms beyond (Upper Austria). Geophysical Research Abstracts 16.

Tappin, D., Grilli, S., Harris, J., Masterlark, T., Kirby, J., Shi, F., Ma, G., 2013. The Fukushima Dai-ichi accident: a geological perspective on the tsunami, PSAM2013-1096, PSAM Topical Conference in Tokyo, 14-18 April 2013. Tokyo, Japan, p. 51.

Tierz, P., Sandri, L., Stefanescu, E.R., Patra, A., Marzocchi, W., Costa, A., Sulpizio, R., 2014. Probabilistic volcanic hazard assessments of Pyroclastic Density Currents: ongoing practices and future perspectives. Geophysical Research Abstracts 16.

Tonn, G., Guikema, S., Ferreira, C., Quiring, S., 2014. A Longitudinal Analysis of the Drivers of Power Outages During Hurricanes: A Case Study with Hurricane Isaac PSAM 12 - Probabilistic Safety Assessment and Management, 22-27 June 2014, Sheraton Waikiki, Honolulu, Hawaii, USA, p. 11.

Uetake, T., Tokumitsu, R., Nishimura, I., Hijikata, K., 2010. Propagation and Amplification of Seismic Ground Motion in Kashiwazaki-Kariwa Nuclear Power Station during the Niigataken Chuetsu-Oki Earthquake, AV-18, First Kashiwazaki International Symposium on Seismic Safety of Nuclear Installations 24-26 November 2010. Kashiwazaki, Japan, p. 20.

USNRC, 2012. Confirmatory Analysis of Seismic Hazard at the Diablo Canyon Power Plant from the Shoreline Fault Zone. Research Information Letter 12-01, 172.

Vanneste, K., Merino, M., Stein, S., Vleminckx, B., Brooks, E., Camelbeeck, T., 2014. Maximum magnitude in the Lower Rhine Graben. Geophysical Research Abstracts 16.

Wang, J.P., 2014. A Procedure Estimating and Smoothing Earthquake Rate in a Region with the Bayesian Approach, PSAM 12 - Probabilistic Safety Assessment and Management, 22-27 June 2014, Sheraton Waikiki, Honolulu, Hawaii, USA, p. 8.

Wang, Y., Rosowsky, D.V., 2013. Characterization of joint wind–snow hazard for performance-based design. Structural Safety 43, 21-27.

Weiss, J., Bernardara, P., 2013. Comparison of local indices for regional frequency analysis with an application to extreme skew surges. Water Resources Research 49, 1-12.

Weng, M.C., Wu, M.H., Ning, S.K., Jou´, Y.W., 2011. Evaluating triggering and causative factors of landslides in Lawnon River Basin, Taiwan. Engineering Geology 123, 72-82.

Wilhelm, G., Arnaud, F., Sabatier, P., Crouzet, C., et al., 2012. 1400 years of extreme precipitation patterns over the Mediterranean French Alps and possible forcing mechanisms. Quaternary Research 78, 1-12.

Wyss, M., Rosset, P., 2013. Mapping seismic risk: the current crisis. Natural Hazards 68, 49-52.

Yamaguchi, A., Nakamura, S., Tsutsumi, Y., Iijima, T., Mihara, Y., 2014. Revision of the AESJ Standard for Seismic Probabilistic Risk Assessment (3) Fragility Evaluation, PSAM 12 - Probabilistic Safety Assessment and Management, 22-27 June 2014, Sheraton Waikiki, Honolulu, Hawaii, USA, p. 7.

Yokobayashi, M., Muramatsu, K., Oikawa, T., 2002. Modeling of Human Error for a Seismic PSA. Nippon Genshiryoku Gakkai Wabun Ronbunshi 1(1), 95-105.

Youngs, R.R., Arabasz, W.J., Anderson, R.E., et al., 2003. A Methodology for Probabilistic Fault Displacement Hazard Analysis (PFDHA). Earthquake Spectra 19, 191-219.

4 BIBLIOGRAPHY DATABASE IN TEXT FILE FORMAT

4.1 INTERNATIONAL STANDARDS

Reference Type: Journal Article
Record Number: 108
Author: IAEA
Year: 1979
Title: Earthquakes and Associated Topics in Relation to Nuclear Power Plant Siting
Journal: Safety Guide
Volume: 350-SG-S1
Pages: 69
Short Title: Earthquakes and Associated Topics in Relation to Nuclear Power Plant Siting
Keywords: Seismic design
Seismotectonic hazard
Vibratory ground motion hazard
Capable fault hazard
Tsunami hazard
Seiche hazard
Liquefaction hazard
Ground displacement hazard
Ground collapse hazard
'File' Attachments: internal-pdf://IAEA_050-SG-S1_Earthquakes_Siting-1106656294/IAEA_050-SG-S1_Earthquakes_Siting.pdf
Language: English

Reference Type: Journal Article
Record Number: 117
Author: IAEA
Year: 1993
Title: Probabilistic safety assessment for seismic events
Journal: Tecdoc
Volume: 724
Pages: 51
Short Title: Probabilistic safety assessment for seismic events
Keywords: Seismotectonic hazard
Vibratory ground motion hazard
seismic PSA
Fragility
'File' Attachments: internal-pdf://IAEA_Tecdoc_724_probabilistic_seismic_safety-1024360743/IAEA_Tecdoc_724_probabilistic_seismic_safety.pdf
Language: English

Reference Type: Journal Article
Record Number: 120
Author: IAEA
Year: 1993
Title: Defining Initiating Events for Purposes of Probabilistic Safety Assessment
Journal: Tecdoc
Volume: 719
Pages: 150
Short Title: Defining Initiating Events for Purposes of Probabilistic Safety Assessment
Keywords: PSA
Seismotectonic hazard
Vibratory ground motion hazard
Fire hazard
Flood hazard
'File' Attachments: internal-pdf://IAEA_Tecdoc_719_Defining_Initiating_Events-1612460071/IAEA_Tecdoc_719_Defining_Initiating_Events.pdf

Language: English

Reference Type: Journal Article
Record Number: 79
Author: IAEA
Year: 1995
Title: Treatment of external Hazards in Probabilistic Safety Assessments for Safety Assessment for Nuclear Power Plants
Journal: Safety Practices
Volume: 50 P-7
Type of Article: Guideline
Short Title: Treatment of external Hazards in Probabilistic Safety Assessments for Safety Assessment for Nuclear Power Plants
Abstract: This Safety Practice provides guidance on conducting a probabilistic safety assessment (PSA) for external hazards in nuclear power plants, with application to the four specific types of hazard that are encountered and analysed most frequently: earthquakes, high winds, floods and man induced events. The methodology itself is general and can be applied equally well to other types of hazard. Information is provided on the inclusion of external hazards in a Level 1 or Level 2 PSA. A particular aim of the present publication, which is part of a set of IAEA publications in preparation, is to promote a standardized framework, terminology and form of documentation for conducting a PSA so as to facilitate external review and to interpret the results of such studies.
Language: English

Reference Type: Journal Article
Record Number: 81
Author: IAEA
Year: 2002
Title: External Human Induced Events in Site Evaluation for Nuclear Power Plants
Journal: Safety Guide
Volume: NS-G-3.1
Pages: 49
Short Title: External Human Induced Events in Site Evaluation for Nuclear Power Plants
Keywords: Aircraft crash
Chemical release hazard
Explosion hazard
Fire hazard
Ship collision
Electromagnetic interference hazard
Transportation hazard
'File' Attachments: internal-pdf://IAEA_NS-G-3.1_External_Man_Made_Events-0831371302/IAEA_NS-G-3.1_External_Man_Made_Events.pdf
Language: English

Reference Type: Journal Article
Record Number: 80
Author: IAEA
Year: 2003
Title: External Events Excluding Earthquakes in the Design of Nuclear Power Plants
Journal: Safety Guide
Volume: NS-G-1.5
Pages: 105
Type of Article: Guidline
Short Title: External Events Excluding Earthquakes in the Design of Nuclear Power Plants
Keywords: Aircraft crash
Explosion hazard
External fire hazard
Chemical release hazard
Electromagnetic interference hazard
Flood hazard
High wind hazard
Meteorological hazard
Biological hazard
Volcanic hazard
Collision with water intake

'File' Attachments: internal-pdf://IAEA_NS-G-1.5_External_Events_in_Design-2072857382/IAEA_NS-G-1.5_External_Events_in_Design.pdf
Language: English

Reference Type: Journal Article
Record Number: 82
Author: IAEA
Year: 2003
Title: Extreme External Events in the Design and Assessment of Nuclear Power Plants
Journal: Tecdoc
Volume: 1341
Pages: 109
Short Title: Extreme External Events in the Design and Assessment of Nuclear Power Plants
Keywords: Seismotectonic hazard
Meteorological hazard
Flood hazard
Landslide hazard
Snow avalange
High wind hazard
Lightning hazard
Volcanic hazard
Man-made hazard
Aircraft crash
Explosion hazard
Chemical release hazard
Fire hazard
Ship collision
Collision with water intake
Electromagnetic interference hazard
'File' Attachments: internal-pdf://IAEA_Tecdoc_1341_Extreme_Events_in_Design-1116455974/IAEA_Tecdoc_1341_Extreme_Events_in_Design.pdf
Language: English

Reference Type: Journal Article
Record Number: 109
Author: IAEA
Year: 2003
Title: Seismic Design and Qualification for Nuclear Power Plants
Journal: Safety Guide
Volume: NS-G-1.6
Pages: 59
Short Title: Seismic Design and Qualification for Nuclear Power Plants
Keywords: Seismotectonic hazard
Seismic design
Seismic qualification
'File' Attachments: internal-pdf://IAEA_NS-G-1.6_Seismic_Design-3472399142/IAEA_NS-G-1.6_Seismic_Design.pdf
Language: English

Reference Type: Journal Article
Record Number: 112
Author: IAEA
Year: 2003
Title: Site Evaluation for Nuclear Installations
Journal: Safety Requirements
Volume: NS-R-3
Pages: 28
Short Title: Site Evaluation for Nuclear Installations
Keywords: Seismotectonic hazard
Vibratory ground motion hazard
Capable fault hazard
Meteorological hazard
Flood hazard

Geological hazard
Ground collapse hazard
Liquefaction hazard
Slope instability
Water control structure
Ground settlement
Ground displacement hazard
'File' Attachments: internal-pdf://IAEA_NS-R-3_Site_Evaluation-1929475623/IAEA_NS-R-3_Site_Evaluation.pdf
Language: English

Reference Type: Journal Article
Record Number: 113
Author: IAEA
Year: 2003
Title: Seismic Evaluation of Existing Nuclear Power Plants
Journal: Safety Report Series
Volume: 28
Pages: 60
Short Title: Seismic Evaluation of Existing Nuclear Power Plants
Keywords: Seismotectonic hazard
Vibratory ground motion hazard
Seismic design
Seismic Margin
'File' Attachments: internal-pdf://IAEA_Safety_Report_28_Seismic_Evaluation_Exist_NPP-0906249511/IAEA_Safety_Report_28_Seismic_Evaluation_Exist_NPP.pdf
Language: English

Reference Type: Journal Article
Record Number: 116
Author: IAEA
Year: 2003
Title: Earthquake experience and seismic qualification by indirect methods in nuclear installations
Journal: Tecdoc
Volume: 1333
Pages: 98
Short Title: Earthquake experience and seismic qualification by indirect methods in nuclear installations
Keywords: Seismotectonic hazard
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seismic design
Seismic qualification
Seismic Margin
'File' Attachments: internal-pdf://IAEA_Tecdoc_1333_Seismic_qualification-3070978343/IAEA_Tecdoc_1333_Seismic_qualification.pdf
Language: English

Reference Type: Journal Article
Record Number: 118
Author: IAEA
Year: 2003
Title: Flood Hazard for Nuclear Power Plants on Coastal and River Sites
Journal: Safety Guide
Volume: NS-G-3.5
Pages: 83
Short Title: Flood Hazard for Nuclear Power Plants on Coastal and River Sites
Keywords: Flood hazard
Ice hazard
Coastal erosion hazard
'File' Attachments: internal-pdf://IAEA_Safety_Guide_Flooding_NS-G-3.5-1477749543/IAEA_Safety_Guide_Flooding_NS-G-3.5.pdf
Language: English

Reference Type: Journal Article
Record Number: 119

Author: IAEA
Year: 2003
Title: Meteorological Events in Site Evaluation for Nuclear Power Plants
Journal: Safety Guide
Volume: NS-G-3.4
Pages: 34
Short Title: Meteorological Events in Site Evaluation for Nuclear Power Plants
Keywords: Meteorological hazard
High wind hazard
Snow pack hazard
Temperature hazard
Flood hazard
Tornado hazard
Lightning hazard
'File' Attachments: internal-pdf://IAEA_Safety_Guide_Meteorologic_Events_NS-G-3.4-2316783143/IAEA_Safety_Guide_Meteorologic_Events_NS-G-3.4.pdf
Language: English

Reference Type: Journal Article
Record Number: 211
Author: IAEA
Year: 2003
Title: Consideration of external events in the design of nuclear facilities other than nuclear power plants, with emphasis on earthquakes
Journal: Tecdoc
Volume: 1347
Pages: 113
Short Title: Consideration of external events in the design of nuclear facilities other than nuclear power plants, with emphasis on earthquakes
Keywords: Seismic design
Aircraft crash design
External explosion design
high wind design
Snow design
Temperature design
Flood design
URL: http://www-pub.iaea.org/MTCD/publications/PDF/te_1347_web.pdf
'File' Attachments: internal-pdf://IAEA_Tecdoc_1347_Consideratiion_of_External_events_in_Design-2359620874/IAEA_Tecdoc_1347_Consideratiion_of_External_events_in_Design.pdf
Language: English

Reference Type: Journal Article
Record Number: 111
Author: IAEA
Year: 2004
Title: Geotechnical Aspects of Site Evaluation and Foundations for Nuclear Power Plants
Journal: Safety Guide
Volume: NS-G-3.6
Pages: 53
Short Title: Geotechnical Aspects of Site Evaluation and Foundations for Nuclear Power Plants
Keywords: Geotechnical hazard
'File' Attachments: internal-pdf://IAEA_NS-G-3.6_Geotechnics_Foundatiion-1979521318/IAEA_NS-G-3.6_Geotechnics_Foundatiion.pdf

Reference Type: Journal Article
Record Number: 208
Author: IAEA
Year: 2006
Title: Fundamental Safety Principles
Journal: Safety Fundamentals
Volume: SF-1
Pages: 37

Short Title: Fundamental Safety Principles
URL: http://www-pub.iaea.org/MTCD/publications/PDF/Pub1273_web.pdf
'File' Attachments: internal-pdf://IAEA_SF-1_Fundamental_Safety_Principles-1083980042/IAEA_SF-1_Fundamental_Safety_Principles.pdf
Language: English

Reference Type: Journal Article
Record Number: 83
Author: IAEA
Year: 2007
Title: Development and Application of Level 1 Probabilistic Safety Assessments for Nuclear Power Plants
Journal: Safety Guide
Volume: SSG-3
Pages: 192
Short Title: Development and Application of Level 1 Probabilistic Safety Assessments for Nuclear Power Plants
Keywords: PSA
Level 1 PSA
'File' Attachments: internal-pdf://IAEA_SSG_3_Probabilistic_Safety_Assessment-3364497702/IAEA_SSG_3_Probabilistic_Safety_Assessment.pdf
Language: English

Reference Type: Journal Article
Record Number: 215
Author: IAEA
Year: 2007
Title: Terminology Used in Nuclear Safety and Radioprotection.
Journal: IAEA Safety Glossary
Volume: 2007 Edition
Pages: 238
Short Title: Terminology Used in Nuclear Safety and Radioprotection.
Keywords: definition of terms
URL: http://www-pub.iaea.org/MTCD/publications/PDF/Pub1290_web.pdf
'File' Attachments: internal-pdf://IAEA_Glossary_Pub1290_web_2007-3958768145/IAEA_Glossary_Pub1290_web_2007.pdf
Language: english

Reference Type: Journal Article
Record Number: 110
Author: IAEA
Year: 2009
Title: Evaluation of Seismic Safety for Existing Nuclear Installations
Journal: Safety Guide
Volume: NS-G-2.13
Pages: 66
Short Title: Evaluation of Seismic Safety for Existing Nuclear Installations
Keywords: Seismotectonic hazard
Vibratory ground motion hazard
seismic Margin
'File' Attachments: internal-pdf://IAEA_NS-G-2.13_Seismic_Safety_Existing_NPP-0536532518/IAEA_NS-G-2.13_Seismic_Safety_Existing_NPP.pdf

Reference Type: Journal Article
Record Number: 209
Author: IAEA
Year: 2009
Title: Safety Assessment for Facilities and Activities
Journal: General Safety Requirements
Volume: GSR Part 4
Pages: 56
Short Title: Safety Assessment for Facilities and Activities
Keywords: Safety assessment
URL: http://www-pub.iaea.org/MTCD/publications/PDF/Pub1375_web.pdf

'File' Attachments: internal-pdf://IAEA_GSR_4_General_Safety_Requirments-1017042954/IAEA_GSR_4_General_Safety_Requirments.pdf
Language: English

Reference Type: Journal Article
Record Number: 115
Author: IAEA
Year: 2010
Title: Seismic Hazards in Site Evaluation for Nuclear Installations
Journal: Specific Safety Guide
Volume: SSG-9
Pages: 60
Short Title: Seismic Hazards in Site Evaluation for Nuclear Installations
Keywords: Seismotectonic hazard
Vibratory ground motion hazard
Capable fault hazard
PSHA
Deterministic seismic hazard assessment
'File' Attachments: internal-pdf://IAEA_SSG_9_Seismic_Hazard-2852724007/IAEA_SSG_9_Seismic_Hazard.pdf

Reference Type: Journal Article
Record Number: 210
Author: IAEA
Year: 2010
Title: Deterministic Safety Analysis for Nuclear Power Plants
Journal: Specific Safety Guide
Volume: SSG-2
Pages: 62
Short Title: Deterministic Safety Analysis for Nuclear Power Plants
Keywords: Deterministic safety analysis
Best estimate approach
Conservative approach
URL: http://www-pub.iaea.org/MTCD/publications/PDF/Pub1428_web.pdf
'File' Attachments: internal-pdf://IAEA_SSG-2_Deterministic_Safety_Analysis-4221671434/IAEA_SSG-2_Deterministic_Safety_Analysis.pdf
Language: English

Reference Type: Journal Article
Record Number: 84
Author: IAEA
Year: 2011
Title: Meteorological and Hydrological Hazards in Site Evaluation for Nuclear Installations
Journal: Specific Safety Guide
Volume: SSG-18
Pages: 146
Short Title: Meteorological and Hydrological Hazards in Site Evaluation for Nuclear Installations
Keywords: Meteorological hazard
Flood hazard
Storm surge hazard
Wind generated waves hazard
Tsunami hazard
Seiche hazard
Bore hazard
Ground water hazard
Precipitation hazard
Climate change
'File' Attachments: internal-pdf://IAEA_Meteorological_Hydrological_Hazards_SSG_18-2777265958/IAEA_Meteorological_Hydrological_Hazards_SSG_18.pdf
Language: English

Reference Type: Journal Article
Record Number: 114

Author: IAEA
Year: 2012
Title: Volcanic Hazards in Site Evaluation for Nuclear Installations
Journal: Specific Safety Guide
Volume: SSG-21
Pages: 106
Short Title: Volcanic Hazards in Site Evaluation for Nuclear Installations
Keywords: Volcanic hazard
Tsunami hazard
Seiche hazard
'File'Attachments: internal-pdf://IAEA_SSG_21_Volcanic_Hazards-0017239591/IAEA_SSG_21_Volcanic_Hazards.pdf
Language: English

Reference Type: Journal Article
Record Number: 134
Author: IAEA
Year: 2012
Title: Safety of Nuclear Power Plants: Design
Journal: Specific Safety Requirements
Volume: SSR-2/1
Pages: 66
Short Title: Safety of Nuclear Power Plants: Design
URL: http://www-pub.iaea.org/MTCD/publications/PDF/Pub1534_web.pdf
'File' Attachments: internal-pdf://IAEA_SSR-2-1_Safety_NPP_Design-2703774768/IAEA_SSR-2-1_Safety_NPP_Design.pdf
Language: Entlish

Reference Type: Journal Article
Record Number: 203
Author: IAEA
Year: 2014
Title: Superseded Standards and Obsolete Standards
Pages: 21
Short Title: Superseded Standards and Obsolete Standards
Keywords: IAEA standards
URL: http://www-ns.iaea.org/downloads/standards/superseded-safety-standards.pdf
'File' Attachments: internal-pdf://IAEA_2014_superseded-safety-standards-1112224010/IAEA_2014_superseded-safety-standards.pdf
Language: English

Reference Type: Journal Article
Record Number: 85
Author: NEA-OECD
Year: 2009
Title: Probabilistic Safety Analysis (PSA) of Other External Events than Earthquake
Journal: NEA
Volume: NEA/CSNI/R(2009)4
Short Title: Probabilistic Safety Analysis (PSA) of Other External Events than Earthquake
Keywords: High wind hazard
Temperature hazard
Meteorological hazard
Drought hazard
Geological hazard
Seismotectonic hazard
Flood hazard
Tsunami hazard
Lightning hazard
Meteorite hazard
Volcanic hazard
Biological hazard
Fire hazard
Man-made hazard
Explosion hazard

Chemical release hazard
Electromagnetic interference hazard
Satellite crash
Aircraft crash
Excavation work
Military hazard
Ship collision
Language: English

Reference Type: Journal Article
Record Number: 132
Author: WENRA
Year: 2013
Title: Statement Safety of new NPP designs
Pages: 6
Short Title: Statement Safety of new NPP designs
URL: http://www.wenra.org/media/filer_public/2013/04/05/wenra_statement_newdesigns2.pdf
'File' Attachments: internal-pdf://WENRA_statement_newdesigns2-3659560752/WENRA_statement_newdesigns2.pdf
Language: English

Reference Type: Journal Article
Record Number: 213
Author: WENRA-RHWG
Year: 2013
Title: Report Safety of new NPP designs
Journal: Study by Reactor Harmonization Working Group RHWG
Pages: 52
Short Title: Report Safety of new NPP designs
Keywords: External events
External hazard
Hazard screening
URL: http://www.wenra.org/media/filer_public/2013/04/30/rhwg_safety_of_new_npp_designs.pdf
'File' Attachments: internal-pdf://RHWG_Safety_new_NPP_designs_2013-2377042186/RHWG_Safety_new_NPP_designs_2013.pdf
Language: English

Reference Type: Journal Article
Record Number: 212
Author: WENRA-RHWG
Year: 2014
Title: WENRA Safety Reference Levels for Existing Reactors. Update in Relation to Lessons Learned from TEPCO Fukushima Dai-ichi Accident
Pages: 52
Short Title: WENRA Safety Reference Levels for Existing Reactors. Update in Relation to Lessons Learned from TEPCO Fukushima Dai-ichi Accident
Keywords: External events
External hazard
Design
Natural hazard
Man-made hazard
'File' Attachments: internal-pdf://wenra_safety_reference_level_for_existing_reactors_september_2014-0395127625/wenra_safety_reference_level_for_existing_reactors_september_2014.pdf
Language: English

4.2 NATIONAL STANDARDS

Reference Type: Journal Article
Record Number: 122
Author: ASME/ANS
Year: 2009
Title: Addenda to ASME/ANS RA-S-2008 Standard for Level 1/Large Early Release Frequency Probabilistic Risk Assessment for Nuclear Power Plant Applications
Pages: 342
Short Title: Addenda to ASME/ANS RA-S-2008 Standard for Level 1/Large Early Release Frequency Probabilistic Risk Assessment for Nuclear Power Plant Applications
Keywords: High wind hazard
Flood hazard
Seismotectonic hazard
Seismic margin
Abstract: The ASME/ANS RA-Sa-2009 Standard sets out the requirements for probabilistic risk assessments (PRAs) used to support risk-informed decisions for commercial light water reactor nuclear power plants and prescribes a method for applying these requirements for specific applications. This Standard establishes requirements for a Level 1 PRA of internal and external hazards for all plant operating modes (low power and shutdown modes will be included at a future date). In addition, this Standard establishes requirements for a limited Level 2 PRA sufficient to evaluate large early release frequency (LERF). The only hazards explicitly excluded from the scope are accidents resulting from purposeful human-induced security threats (e.g., sabotage).
Part 6 from this standard provides requirements for screening and conservative analyses of other external hazards at-power. The term “other external hazard” refers to external hazards other than earthquakes. The list of these hazards including seismic activities is given in Table 1.
URL: http://www.ewp.rpi.edu/hartford/~povron/EP/Other/ASME-ANS%20RA-Sa-2009.pdf
'File' Attachments: internal-pdf://ASME_ANS RA-Sa-2009_Abstract_and_Comments-4230285607/ASME_ANS RA-Sa-2009_Abstract_and_Comments.docx
internal-pdf://ASME-ANS RA-Sa-2009_Level_1_Probabilistic_Risk_Assessment-3894763303/ASME-ANS RA-Sa-2009_Level_1_Probabilistic_Risk_Assessment.pdf
Language: English

Reference Type: Journal Article
Record Number: 137
Author: ASN
Year: 1980
Title: Prise en compte des risques liés aux chutes d'avions
Journal: Règles fondamentales de sûreté relatives aux réacteurs à eau sous pression
Volume: Règle No. 1.2.a (5 aout 1980)
Pages: 2
Short Title: Prise en compte des risques liés aux chutes d'avions
Keywords: Aircraft crash
'File' Attachments: internal-pdf://F_RFS_I2a_Aircraft (fr)-3895897392/F_RFS_I2a_Aircraft (fr).pdf
Language: French

Reference Type: Journal Article
Record Number: 138
Author: ASN
Year: 1982
Title: Prise en compte des risques liés à l'environnement industriel et aux voies de communication
Journal: Règles fondamentales de sûreté relatives aux réacteurs à eau sous pression
Volume: Règle No. I.2.d (7 mai 1982)
Pages: 10
Short Title: Prise en compte des risques liés à l'environnement industriel et aux voies de communication
Keywords: Man-made hazard
Transportation hazard
Industry hazard
'File' Attachments: internal-pdf://F_RFS_I2d_Industry and transport (fr)-3308887856/F_RFS_I2d_Industry and transport (fr).pdf
Language: French

Reference Type: Journal Article

Record Number: 139
Author: ASN
Year: 1985
Title: Site geological and geotechnical studies, determination of soil characteristics and soil response studies
Journal: Basic Safety Rules
Volume: Rule No. I.3.c (1 aout 1985)
Pages: 10
Short Title: Site geological and geotechnical studies, determination of soil characteristics and soil response studies
Keywords: Geological hazard
Liquefaction hazard
Ground settlement
Landslide hazard
Capable fault hazard

'File' Attachments: internal-pdf://F_RFS_I3c_Geotechnic (en)-1245568560/F_RFS_I3c_Geotechnic (en).pdf
internal-pdf://F_RFS_I3c_Geotechnic (fr)-0708704560/F_RFS_I3c_Geotechnic (fr).pdf
Language: English, French

Reference Type: Journal Article
Record Number: 136
Author: ASN
Year: 2001
Title: Fundamental safety rule n°2001-01 concerning basic nuclear installations. Determination of the seismic risk for the safety of surface basic nuclear installations
Journal: Basic Safety Rule
Volume: n°2001-01
Pages: 14
Short Title: Fundamental safety rule n°2001-01 concerning basic nuclear installations. Determination of the seismic risk for the safety of surface basic nuclear installations
Keywords: Seismotectonic hazard
Vibratory ground motion hazard
'File' Attachments: internal-pdf://F_RFS_2001-01_Seismic haz (en)-1110698288/F_RFS_2001-01_Seismic haz (en).pdf
internal-pdf://F_RFS_2001-01_Seismic haz (fr)-0087295536/F_RFS_2001-01_Seismic haz (fr).pdf
Language: English, French

Reference Type: Journal Article
Record Number: 135
Author: ASN
Year: 2013
Title: Protection des installations nucléaires de base contre les inondations externes
Journal: Guides de l'ASN
Volume: Guide No 13
Pages: 44
Short Title: Protection des installations nucléaires de base contre les inondations externes
Keywords: Flood hazard
Precipitation hazard
Water control structure
River flood hazard
Sea wave hazard
'File' Attachments: internal-pdf://F_Guide 13_Flood (fr)-0976140080/F_Guide 13_Flood (fr).pdf
Language: French

Reference Type: Journal Article
Record Number: 232
Author: HAEA (Hungarian Atomic Energy Authority)
Year: 2014
Title: Nukleáris létesítmények telephely- vizsgálatának és -értékelésének módszertana (Methodology for Site Investigation and Evaluation of Nuclear Installations)
Volume: Regulatory Guide 7.1.
Short Title: Nukleáris létesítmények telephely- vizsgálatának és -értékelésének módszertana (Methodology for Site Investigation and Evaluation of Nuclear Installations)
Keywords: site evaluation

Natural hazard
Man-made hazard
'File' Attachments: internal-pdf://Hungarian_Atomic_Energy_Authority_2014_Regulatory_Guide_7.1v1-3889441803/Hungarian_Atomic_Energy_Authority_2014_Regulatory_Guide_7.1v1.pdf
Language: Hungarian

Reference Type: Journal Article
Record Number: 240
Author: NRA (Nuclear Regulation Authority)
Year: 2013
Title: New Regulatory Requirements for Light-Water Nuclear Power Plants - Outline
Pages: 28
Short Title: New Regulatory Requirements for Light-Water Nuclear Power Plants - Outline
Keywords: Capable fault hazard
Flooding
Seiche hazard
aircraft crash
URL: http://www.nsr.go.jp/english/e_news/data/13/0912.pdf
'File' Attachments: internal-pdf://NRA_New_Regulatory_Requirements_2013-3335440964/NRA_New_Regulatory_Requirements_2013.pdf
Language: English

Reference Type: Journal Article
Record Number: 241
Author: NRA (Nuclear Regulation Authority)
Year: 2013
Title: Outline of New Regulatory Requirements For Light Water Nuclear Power Plants (Earthquakes and Tsunamis)
Pages: 32
Short Title: Outline of New Regulatory Requirements For Light Water Nuclear Power Plants (Earthquakes and Tsunamis)
Keywords: Seiche hazard
Tsunami hazard
Capable fault hazard
Active fault
Vibratory ground motion hazard
Ground displacement hazard
URL: http://www.nsr.go.jp/english/data/new_regulatory_requirements2.pdf
'File' Attachments: internal-pdf://NRA_New_Regulatory_Requirements_Earthquake_Tsunamis_2013-0316383812/NRA_New_Regulatory_Requirements_Earthquake_Tsunamis_2013.pdf
Language: English

Reference Type: Journal Article
Record Number: 234
Author: J. P. Byrne
Year: 1997
Title: The calculation of aircraft crash in the UK
Journal: AEA Technology plc
Volume: Contract Research Report 150/1997
Pages: 93
Short Title: The calculation of aircraft crash in the UK
Keywords: aircraft crash
Hazard screening
airport zone
airtraffic corridor
flight zone
'File' Attachments: internal-pdf://AEA_1997_Aircraft_crash_CRR97150-2247067403/AEA_1997_Aircraft_crash_CRR97150.pdf
Language: English

Reference Type: Journal Article
Record Number: 86
Author: CNSC
Year: 2008

Title: Site Evaluation for New Nuclear Power Plants
Journal: Acts and Regulations
Volume: RD-346
Short Title: Site Evaluation for New Nuclear Power Plants
Keywords: Natural hazard
Climate change
Meteorological hazard
Temperature hazard
Humidity hazard
Evaporation
High wind hazard
Abrasive dust hazard
Sand storm hazard
Precipitation hazard
Lightning hazard
Flood hazard
Groundwater hazard
Geotechnical hazard
Seismotectonic hazards
Capable fault hazard
Volcanic hazard
Biological hazard
Wildfire hazard
Man-made hazards
Aircraft crash
Transportation hazard
Explosion hazard
Chemical release hazard
Radiological hazard
Electromagnetic interference hazard
URL: http://nuclearsafety.gc.ca/eng/acts-and-regulations/regulatory-documents/published/html/rd346/
Language: English

Reference Type: Journal Article
Record Number: 87
Author: CNSC
Year: 2008
Title: Design of New Nuclear Power Plants
Journal: Acts and Regulations
Volume: RD-337
Short Title: Design of New Nuclear Power Plants
Keywords: Natural hazard
Seismotectonic hazards
Drought hazard
Flood hazard
High wind hazard
Tornado hazard
Tsunami hazard
Meteorological hazard
Man-made hazards
Aircraft crash
Ship collision
Terrorist activity
URL: http://www.cnsc-ccsn.gc.ca/eng/acts-and-regulations/regulatory-documents/published/html/rd337/
Language: English

Reference Type: Journal Article
Record Number: 237
Author: CNSC
Year: 2008
Title: Design of New Nuclear Power Plants
Journal: Acts and Regulations
Volume: RD-337

Short Title: Design of New Nuclear Power Plants (Superseded by REGDOC 2.5.2)
Keywords: Natural hazard
Seismotectonic hazards
Drought hazard
Flood hazard
High wind hazard
Tornado hazard
Tsunami hazard
Meteorological hazard
Man-made hazards
Aircraft crash
Ship collision
Terrorist activity
URL: http://www.cnsc-ccsn.gc.ca/eng/acts-and-regulations/regulatory-documents/published/html/rd337/
Language: Englisch

Reference Type: Journal Article
Record Number: 235
Author: CNSC
Year: 2014
Title: Probabilistic Safety Assessment (PSA) for Nuclear Power Plants
Journal: Regulatory Document
Volume: REGDOC-2.4.2
Pages: 13
Short Title: Probabilistic Safety Assessment (PSA) for Nuclear Power Plants
ISSN: ISBN 978-1-100-23791-6
Keywords: PSA

URL: http://www.nuclearsafety.gc.ca/pubs_catalogue/uploads/REGDOC-2-4-2-Probabilistic-Safety-Assessment-NPP-eng.pdf
'File' Attachments: internal-pdf://Canadian_Nuclear_Safety_Commission_2014_REGDOC-2.4.2-2247506187/Canadian_Nuclear_Safety_Commission_2014_REGDOC-2.4.2.pdf
Language: English

Reference Type: Journal Article
Record Number: 236
Author: CNSC
Year: 2014
Title: Design of Reactor Facilities: Nuclear Power Plants
Journal: Regulatory Document
Volume: REGDOC-2.5.2
Pages: 183
Short Title: Design of Reactor Facilities: Nuclear Power Plants
Keywords: Natural hazard
Seismotectonic hazards
Drought hazard
Flood hazard
High wind hazard
Tornado hazard
Tsunami hazard
Meteorological hazard
Man-made hazards
Aircraft crash
Ship collision
Terrorist activity
URL: http://www.nuclearsafety.gc.ca/pubs_catalogue/uploads/REGDOC-2-5-2-Design-of-Reactor-Facilities-Nuclear-Power-Plants-eng.pdf
'File' Attachments: internal-pdf://Canadian_Nuclear_Safety_Commission_2014_REGDOC-2.5.2-3891969035/Canadian_Nuclear_Safety_Commission_2014_REGDOC-2.5.2.pdf
Language: English

Reference Type: Conference Proceedings
Record Number: 192

Author: K. Ebisawa, Kamae, K., Annaka, T., Tsutsumi, H., Onouchi, A.
Year of Conference: 2014
Title: Revision of the AESJ Standard for Seismic Probabilistic Risk Assessment (2) Seismic Hazard Evaluation
Conference Name: PSAM 12 - Probabilistic Safety Assessment and Management
Conference Location: 22-27 June 2014, Sheraton Waikiki, Honolulu, Hawaii, USA
Pages: 8
Short Title: Revision of the AESJ Standard for Seismic Probabilistic Risk Assessment (2) Seismic Hazard Evaluation
Keywords: PRA
Seismic PRA
Seismic hazard
Tsunami hazard
Aftershock hazard
URL: http://psam12.org/proceedings/paper/paper_531_1.pdf
'File' Atttachments: internal-pdf://Ebisawa_et_al_AESJ_Seismic_PRA_paper_531_1-1444176138/Ebisawa_et_al_AESJ_Seismic_PRA_paper_531_1.pdf
Language: English

Reference Type: Journal Article
Record Number: 96
Author: EPRI
Year: 1991
Title: A Methodology for Assessment of Nuclear Power Plant Seismic Margin (Rev. 1)
Journal: Technical Report
Volume: NP-6041-SLR1
Issue: Revision 1, Project 2722-23
Pages: 794
Short Title: A Methodology for Assessment of Nuclear Power Plant Seismic Margin (Revision 1)
Keywords: Seismic Margin
Seismotectonic hazard
Abstract: EPRI's seismic margin methodology enables utility engineers to quantify a nuclear power plant's ability to withstand an earthquake greater than design and still safely shut down for at least 72 hours. This cost-effective, practical methodology uses generic screening of systems and component seismic ruggedness and does not require probabilistic calculations. The revision adds depth, detail, and more complete procedures to the original report but does not change the basic method.
URL: http://www.epri.com/abstracts/Pages/ProductAbstract.aspx?ProductId=NP-6041-SLR1
'File' Attachments: internal-pdf://EPRI_NP-6041-SLR1_Seismic_Margin_Assessment-0616411942/EPRI_NP-6041-SLR1_Seismic_Margin_Assessment.pdf
Language: English

Reference Type: Journal Article
Record Number: 98
Author: EPRI
Year: 2003
Title: Seismic Probabilistic Risk Assessment Implementation Guide
Journal: Technical Report
Volume: 1002989
Pages: 182
Short Title: Seismic Probabilistic Risk Assessment Implementation Guide
Keywords: Seismotectonic hazard
Fragility
SPRA
Abstract: The American Nuclear Society (ANS) has developed standard ANS 58.21, “External Event PRA Methodology Standard,” for addressing the risk to Nuclear Power Plants from earthquakes and other external events. The Standard provides requirements for addressing external events from a risk-informed perspective. Requirements range progressively from simplified methods to more detailed levels of PRA. For seismic events, the Standard provides requirements for conducting seismic margin assessment (SMA) and SPRA. This report provides implementation guidance for performing SPRAs; other recent EPRI reports provide implementation guidance for the SMA. Primary steps for SPRAs are developing (1) the seismic hazard, (2) the fault tree/event tree model of plant response to earthquakes, and (3) fragilities for basic events included in the plant model. The ANS Standard provides high-level requirements for developing the seismic hazard, the plant system modeling, and the fragilities for three progressively more detailed SPRA levels. The graded levels are labeled as Capability Category I, II, and III. This document focuses on implementation guidance for Capability Category II since that is judged to be the most appropriate category for the predominant number of risk-informed applications. Existing SPRA methodologies

have ranged from simplified to detailed assessments and have been used in the individual plant examination for external events (IPEEE) program in varying degrees of detail. The U.S. Nuclear Regulatory Commission (USNRC) review of IPEEE (USNRC, 2000a) identified some shortcomings in methodology and practice that require improvements for future uses. This document addresses some of the fundamental USNRC comments stemming from the IPEEE program, correlates existing methodologies with requirements from the new ANS standard, and provides implementation guidelines.
'File' Attachments: internal-pdf://EPRI_1002989_Seismic_Probabilistic_Risk_Assessment_2003-3167320358/EPRI_1002989_Seismic_Probabilistic_Risk_Assessment_2003.pdf
Language: English

Reference Type: Journal Article
Record Number: 97
Author: EPRI
Year: 2013
Title: Seismic Probabilistic Risk Assessment Implementation Guide
Journal: Technical Report
Volume: 3002000709
Short Title: Seismic Probabilistic Risk Assessment Implementation Guide
Abstract: This report provides updates to the guidelines and approaches for seismic probabilistic risk assessments (SPRAs) that were published in the initial Electric Power Research Institute (EPRI) report Seismic Probabilistic Risk Assessment Implementation Guide (1002989) in 2003. It provides practical guidelines for SPRA development to support a variety of uses, including risk-informed applications.

It is intended that a probabilistic risk assessment (PRA) that applies the SPRA guidelines properly would satisfy requirements of the American Society of Mechanical Engineers (ASME) and American Nuclear Society (ANS) Standard RA-Sa-2009, “Standard for Level 1/Large Early Release Frequency Probabilistic Risk Assessment for Nuclear Power Plant Applications,” and the Nuclear Regulatory Commission (NRC) Regulatory Guide 1.200, Revision 2, “An Approach for Determining the Technical Adequacy of Probabilistic Risk Assessment Results for Risk-Informed Activities.” In addition, this report is intended to support post-Fukushima evaluations of seismic hazards, including those reflected in the EPRI report Seismic Evaluation Guidance: Screening, Prioritization and Implementation Details (SPID) for the Resolution of Fukushima Near-Term Task Force Recommendation 2.1: Seismic (1025287).
URL: http://www.epri.com/abstracts/Pages/ProductAbstract.aspx?ProductId=000000003002000709

Reference Type: Edited Book
Record Number: 204
Editor: GRS
Year: 1980
Title: Einwirkungen von außen (einschließlich anlageninterner Brände)
Series Editor: G. f. Reaktorsicherheit
Series Title: Deutsche Risikostudie Kernkraftwerke
Publisher: Verlag TÜV Rheinland
Volume: Fachband 4
Number of Pages: 320
Short Title: Einwirkungen von außen (einschließlich anlageninterner Brände)
ISBN: ISBN 3-88583-015-X
Keywords: External events
Seismic hazard
Extreme weather
Lightning hazard
Flood hazard
Aircraft crash
external explosion hazard

'File' Attachments: internal-pdf://GRS_1980_Risikostudie_KKW_Fachband_4-2791281674/GRS_1980_Risikostudie_KKW_Fachband_4.PDF

Reference Type: Journal Article
Record Number: 227
Author: JANSI
Year: 2013

Title: Assessment Methods for Nuclear Power Plant against Fault Displacement
Volume: JANSI-FDE-03 rev. 1
Pages: 53
Short Title: Assessment Methods for Nuclear Power Plant against Fault Displacement
Keywords: Seismotectonic hazard
Capable fault hazard
Fault displacement analysis
Notes: Without appendices
URL: http://www.genanshin.jp/archive/sitefault/data/JANSI-FDE-03r1.pdf
'File' Attachments: internal-pdf://JANSI-FDE-03r1_2013_Fault_capability_analysis_English-2237786368/JANSI-FDE-03r1_2013_Fault_capability_analysis_English.pdf
Language: English

Reference Type: Journal Article
Record Number: 228
Author: JANSI
Year: 2013
Title: Assessment Methods for Nuclear Power Plant against Fault Displacement
Volume: JANSI-FDE-01 rev.1
Pages: 180
Short Title: Assessment Methods for Nuclear Power Plant against Fault Displacement
Keywords: Seismotectonic hazard
Capable fault hazard
Fault displacement analysis
Notes: Includes Appendices (in Japanese only)
URL: http://www.genanshin.jp/archive/sitefault/data/JANSI-FDE-01r1.pdf
'File' Attachments: internal-pdf://JANSI-FDE-03r1_2013_Fault_capability_analysis_Japanese-4200727808/JANSI-FDE-03r1_2013_Fault_capability_analysis_Japanese.pdf
Language: Japanese

Reference Type: Journal Article
Record Number: 238
Author: AESJ
Year: 2011
Title: Implementation Standard Concerning the Tsunami Probabilistic Risk Assessment of Nuclear Power Plants: 2011
Journal: AESJ Standards
Volume: AESJ-SC-RK004E: 2011
Short Title: Implementation Standard Concerning the Tsunami Probabilistic Risk Assessment of Nuclear Power Plants: 2011
ISSN: 978-4-89047-368-7
Keywords: tsunami hazard
probabilistic risk assessment
Initiating events
Abstract: A standard for Procedure of Tsunami Probabilistic Risk Assessment (PRA) for nuclear power plants 2011 has been established and issued by the Atomic Energy Society of Japan (AESJ) through the discussion at the Tsunami PRA Subcommittee under the Risk Technical Committee of the Standards Committee. The standard specifies the requirement which should have the PRA regarding incidents resulting from tsunamis as the initiating events at nuclear power plants during power operation, and the concrete method of filling it as an enforcement standard based on the PRA procedure.
URL: http://www.aesj.or.jp/sc/english/rk004e_2011_en.html
Language: English

Reference Type: Journal Article
Record Number: 197
Author: Y. Kirimoto, Yamaguchi, A., Ebisawa, K.
Year: 2013
Title: Standardized Procedure for Tsunami PRA by AESJ
Journal: E-Journal of Advanced Maintenance
Volume: 5
Issue: 1
Pages: 62-79
Short Title: Standardized Procedure for Tsunami PRA by AESJ

Keywords: Tsunami hazard
Tsunami PRA

'File' Attachments: internal-pdf://Kirimoto_et_al_2013_Tsunami_PRA-2586223114/Kirimoto_et_al_2013_Tsunami_PRA.pdf
Language: English

Reference Type: Journal Article
Record Number: 106
Author: KTA
Year: 1990
Title: Design of Nuclear Power Plants Against Seismic Events Part 2: Subsurface Materials (Soil and Rock)
Volume: KTA 2201.2
Pages: 9
Short Title: Design of Nuclear Power Plants Against Seismic Events Part 2: Subsurface Materials (Soil and Rock)
Keywords: seismotectonic hazard
Vibratory ground motion hazard
'File' Attachments: internal-pdf://KTA_2201_2e_1990_06_Seismic_Design-1760400678/KTA_2201_2e_1990_06_Seismic_Design.pdf
Language: English

Reference Type: Journal Article
Record Number: 104
Author: KTA
Year: 2011
Title: Auslegung von Kernkraftwerken gegen seismische Einwirkungen
Journal: Sicherheitstechnische Regel des KTA
Volume: KTA 2201.1
Pages: 8
Short Title: Auslegung von Kernkraftwerken gegen seismische Einwirkungen
Keywords: Seismotectonic hazard
PSHA
Determínistic seismic hazard assessment
Vibratory ground motion hazard
Seismic design
URL: http://www.kta-gs.de/d/regeln/2200/2201_1_2011_11.pdf
'File' Attachments: internal-pdf://KTA_2201_1_2011_11_Seismische_Einwirkungen-0048608806/KTA_2201_1_2011_11_Seismische_Einwirkungen.pdf
Language: German

Reference Type: Journal Article
Record Number: 105
Author: KTA
Year: 2011
Title: Design of Nuclear Power Plants against Seismic Events; Part 1: Principles
Journal: Safety Standards
Volume: KTA 2201.1
Pages: 7
Short Title: Design of Nuclear Power Plants against Seismic Events; Part 1: Principles
Keywords: seismotectonic hazard
Vibratory ground motion hazard
PSHA
Determínistic seismic hazard assessment
Seismic design
'File' Attachments: internal-pdf://KTA_2201_1e_2011_11_Seismic_Design-0518572582/KTA_2201_1e_2011_11_Seismic_Design.pdf
Language: English

Reference Type: Journal Article
Record Number: 107
Author: KTA
Year: 2011
Title: Auslegung von Kernkraftwerken gegen seismische Einwirkungen Teil 2: Baugrund

Journal: Sicherheitstechnische Regel des KTA
Volume: KTA 2201.2
Pages: 15
Short Title: Auslegung von Kernkraftwerken gegen seismische Einwirkungen Teil 2: Baugrund
Keywords: Seismotectonic hazard
Vibratory ground motion hazard
'File' Attachments: internal-pdf://KTA_2201_2re_2011_11_Seismic_Design-3085974822/KTA_2201_2re_2011_11_Seismic_Design.pdf
Language: German

Reference Type: Journal Article
Record Number: 249
Author: Headquarters for Earthquake Research Promotion
Year: 2014
Title: Evaluations of Active Faults
Journal: http://www.jishin.go.jp/main/p_hyoka02_danso.htm
Short Title: Evaluations of Active Faults
Keywords: active fault
Seismic hazard
Capable fault hazard
URL: http://www.jishin.go.jp/main/p_hyoka02_danso.htm
Language: Japanese

Reference Type: Journal Article
Record Number: 250
Author: Headquarters for Earthquake Research Promotion
Year: 2014
Title: Evaluation of occurrence potentials of subduction-zone earthquakes
Journal: http://www.jishin.go.jp/main/p_hyoka02_kaiko.htm
Short Title: Evaluation of occurrence potentials of subduction-zone earthquakes
Keywords: Seismic hazard
active fault
URL: http://www.jishin.go.jp/main/p_hyoka02_kaiko.htm
Language: Japanese

Reference Type: Journal Article
Record Number: 101
Author: STUK
Year: 2002
Title: Seismic Events and Nuclear Power Plants
Journal: Guide
Volume: YVL 2.6
Pages: 9
Short Title: Seismic Events and Nuclear Power Plants
Keywords: Seismotectonic hazard
Seismic design
Vibratory ground motion hazard
'File' Attachments: internal-pdf://STUK_12450-YVL2-6e_Seismic_Events-1121333798/STUK_12450-YVL2-6e_Seismic_Events.pdf
Language: English

Reference Type: Journal Article
Record Number: 239
Author: The Tsunami Evaluation Subcommittee, The Nuclear Civil Engineering Committee, JSCE
Year: 2002
Title: Tsunami Assessment Method for Nuclear Power Plants in Japan
Pages: 73
Short Title: Tsunami Assessment Method for Nuclear Power Plants in Japan
Keywords: Tsunami hazard
Tsunami modeling
URL: http://committees.jsce.or.jp/ceofnp/system/files/JSCE_Tsunami_060519.pdf
'File' Attachments: internal-pdf://JSCE_Tsunami_060519_2002-0146948676/JSCE_Tsunami_060519_2002.pdf
Language: English

Reference Type: Journal Article
Record Number: 260
Author: USNRC
Year: 1981
Title: Identification of potential hazards in site vicinity
Journal: Standard Review Plan
Volume: NUREG-0800
Pages: 4
Short Title: Identification of potential hazards in site vicinity
Keywords: Hazard screening
Man-made hazard
URL: http://pbadupws.nrc.gov/docs/ML0523/ML052340558.pdf
'File' Attachments: internal-pdf://NUREG_0800_Identification_of_hazards_site_vicinity_ML052340558-1708720453/NUREG_0800_Identification_of_hazards_site_vicinity_ML052340558.pdf
Language: English

Reference Type: Journal Article
Record Number: 90
Author: USNRC
Year: 1983
Title: PRA Procedures Guide. A Guide to Performance of Probabilistic Risk Assessments for Nuclear Power Plants
Volume: NUREG/CR-2300
Issue: Chapters 9-13
Pages: 181
Short Title: PRA Procedures Guide. A Guide to Performance of Probabilistic Risk Assessments for Nuclear Power Plants
Abstract: This procedures guide describes methods for performing probabilistic risk assessments (PRAs) for nuclear power plants at three levels of scope: (1) systems analysis; (2) systems and containment analysis; and (3) systems, containment, and consequence analysis. After reviewing its objectives and limitations, this document describes the organization and management of a PRA project and then presents procedures for accidentsequence definition and systems modeling, human-reliability analysis, the development of a data base, and the quantification of accident sequences. Procedures for evaluating the physical processes of core meltdown are presented next, followed by guidance on the evaluation of radionuclide releases from the containment as well as the analysis of environmental transport and offsite consequences. The analysis of external hazards is discussed next, including procedures for seismic, fire, and flood analyses. The guide concludes with suggestions for the development and interpretation of results and the performance of uncertainty analyses.
URL: http://www.nrc.gov/reading-rm/doc-collections/nuregs/contract/cr2300/vol2/cr2300v2-a.pdf
'File' Attachments: internal-pdf://NUREG_CR-2300_Vol_2_PRA_Procedures_Guide-3130627110/NUREG_CR-2300_Vol_2_PRA_Procedures_Guide.pdf
internal-pdf://NUREG_CR-2300_Abstract_and_Comments-3348835878/NUREG_CR-2300_Abstract_and_Comments.docx
Language: English

Reference Type: Journal Article
Record Number: 91
Author: USNRC
Year: 1983
Title: PRA Procedures Guide. A Guide to the Performance of Probabilistic Risk Assessments for Nuclear Power Plants
Volume: NUREG/CR-2300
Issue: Chapters 1-8
Short Title: PRA Procedures Guide. A Guide to the Performance of Probabilistic Risk Assessments for Nuclear Power Plants
Abstract: This procedures guide describes methods for performing probabilistic risk assessments (PRAs) for nuclear power plants at three levels of scope: (1) systems analysis; (2) systems and containment analysis; and (3) systems, containment, and consequence analysis. After reviewing its objectives and limitations, this document describes the organization and management of a PRA project and then presents procedures for accidentsequence definition and systems modeling, human-reliability analysis, the development of a data base, and the quantification of accident sequences. Procedures for evaluating the physical processes of core meltdown are presented next, followed by guidance on the evaluation of radionuclide releases from the containment as well as the analysis of environmental transport and offsite consequences. The analysis of external hazards is discussed next, including

procedures for seismic, fire, and flood analyses. The guide concludes with suggestions for the development and interpretation of results and the performance of uncertainty analyses.
URL: http://www.nrc.gov/reading-rm/doc-collections/nuregs/contract/cr2300/vol1/
'File' Attachments: internal-pdf://NUREG_CR-2300_Vol_1_part_1_PRA_Procedures_Guide-1117823526/NUREG_CR-2300_Vol_1_part_1_PRA_Procedures_Guide.pdf
internal-pdf://NUREG_CR-2300_Vol_1_part_2_PRA_Procedures_Guide-3953182502/NUREG_CR-2300_Vol_1_part_2_PRA_Procedures_Guide.pdf
internal-pdf://NUREG_CR-2300_Vol_1_part_3_PRA_Procedures_Guide-2879447590/NUREG_CR-2300_Vol_1_part_3_PRA_Procedures_Guide.pdf
Language: English

Reference Type: Journal Article
Record Number: 262
Author: USNRC
Year: 1984
Title: Probabilistic Safety Analysis Procedures Guide
Journal: NUREG/CR
Volume: 2815
Pages: 240
Short Title: Probabilistic Safety Analysis Procedures Guide
Keywords: PSA
Loss of offsite power
URL: http://pbadupws.nrc.gov/docs/ML0635/ML063550253.pdf
'File' Attachments: internal-pdf://NUREG_CR_2815_Probabilistic_safety_analysis_procedures_guide-2464445509/NUREG_CR_2815_Probabilistic_safety_analysis_procedures_guide.pdf
Language: English

Reference Type: Journal Article
Record Number: 93
Author: USNRC
Year: 1985
Title: An Approach to the Quantification of Seismic Margins in Nuclear Power Plants
Volume: NUREG/CR-4334
Pages: 322
Short Title: An Approach to the Quantification of Seismic Margins in Nuclear Power Plants
Keywords: Seismotectonic hazard
Seismic Margin
URL: http://pbadupws.nrc.gov/docs/ML0905/ML090500182.pdf#page=1&zoom=auto,0,791
'File' Attachments: internal-pdf://NUREG_CR-4334_Seismic_Margin_Quantification-1856811302/NUREG_CR-4334_Seismic_Margin_Quantification.pdf
Language: English

Reference Type: Journal Article
Record Number: 94
Author: USNRC
Year: 1986
Title: Recommendations To The Nuclear Regulatory Commission On Trial Guidelines For Seismic Margin Reviews Of Nuclear Power Plants: Draft Report for Comment
Volume: NUREG/CR-4482, UCID-20579
Pages: 104
Short Title: Recommendations To The Nuclear Regulatory Commission On Trial Guidelines For Seismic Margin Reviews Of Nuclear Power Plants: Draft Report for Comment
Keywords: Seismic Margin
Seismotectonic hazard
Abstract: This report is the third report of the Expert Panel on the Quantification of Seismic Margins. The objective of this report is to present detailed guidelines for the performance of seismic margin reviews of nuclear power plants. The guidelines presented in this report are based on the Panel's second report entitled "An Approach to the Quantification of Seismic Margins in Nuclear Power Plants."

It is intended that these guidelines be used in at least one trial plant review to demonstrate whether the approach and the quantification techniques are adequate. Based on lessons learned from these trial reviews, the Panel can then be more prescriptive about defining guidelines for general use.
URL: http://www.nrc.gov/reading-rm/doc-collections/nuregs/contract/cr4482/

'File' Attachments: internal-pdf://NUREG_CR-4482_Seismic_Margin_Reviews-4055237414/NUREG_CR-4482_Seismic_Margin_Reviews.pdf
Language: English

Reference Type: Journal Article
Record Number: 95
Author: USNRC
Year: 1988
Title: An Approach to the Quantification of Seismic Margins in Nuclear Power Plants: The Importance of BWR Plant Systems and Functions to Seismic Margins
Volume: NUREG/CR-5076, UCRL-15985
Pages: 33
Short Title: An Approach to the Quantification of Seismic Margins in Nuclear Power Plants: The Importance of BWR Plant Systems and Functions to Seismic Margins
Keywords: Seismotectonic hazard
Seismic Margin
Abstract: In NUREG/CR-4334 ("An Approach to the Quantification of Seismic Margins in Nuclear Power Plants"), the Expert Panel on Quantification of Seismic Margins presented a technique for studying the issue of quantifying seismic margins. As part of that technique, the panel included methods for simplifying the margins assessment by screening out components and systems using both systems and fragilities screening guidelines. At the time of that report, the panel was able to develop fragilities screening guidelines for all plants, however the systems screening guidelines applied only to PWRs (due to a shortage of BWR seismic PRAs upon which to base BWR systems screening guidelines). This report develops the BWR systems screening guidelines by utilizing the results of a number of BWR PRAs which have become available since the publication of NUREG/CR-4334.
URL: http://www.nrc.gov/reading-rm/doc-collections/nuregs/contract/cr5076/
'File' Attachments: internal-pdf://NUREG_CR-5076_Seismic_Margin_BWR_Plants-2008619814/NUREG_CR-5076_Seismic_Margin_BWR_Plants.pdf
Language: English

Reference Type: Journal Article
Record Number: 263
Author: USNRC
Year: 1989
Title: Evaluation of external hazards to nuclear power plants in the United States: Other external events
Journal: NUREG/CR
Volume: 5042
Pages: 238
Short Title: Evaluation of external hazards to nuclear power plants in the United States: Other external events
Keywords: High wind
Tornado hazard
Transportation hazard
URL: http://pbadupws.nrc.gov/docs/ML1419/ML14196A083.pdf
'File' Attachments: internal-pdf://NUREG_CR_5042_External_hazards_US-0048869189/NUREG_CR_5042_External_hazards_US.pdf
Language: English

Reference Type: Journal Article
Record Number: 92
Author: USNRC
Year: 1991
Title: Procedural and Submittal Guidance for the Individual Plant Examination of External Events (IPEEE) for Severe Accident Vulnerabilities
Volume: NUREG-1407
Pages: 98
Short Title: Procedural and Submittal Guidance for the Individual Plant Examination of External Events (IPEEE) for Severe Accident Vulnerabilities
Keywords: Seismotectonic hazard
Fire hazard
High wind hazard
Flood hazard
Transportation hazard
Lightning hazard
Temperature hazard

Meteorological hazard
Meteorite hazard
Satellite crash
Volcanic hazard

Abstract: Based on a Policy Statement on Severe Accidents, the licensee of each nuclear power plant is requested to perform an individual plant examination. The plant examination systematically looks for vulnerabilities to severe accidents and cost-effective safety improvements that reduce or eliminate the important vulnerabilities. This document presents guidance for performing and reporting the results of the individual plant examination of external events (IPEEE). The guidance for reporting the results of the individual plant examination of internal events (IPE) is presented in NUREG-1335.
URL: http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1407/
'File' Attachments: internal-pdf://NUREG_1407_Examination_External_Events-0816225062/NUREG_1407_Examination_External_Events.pdf
internal-pdf://NUREG-1407_Abstract_and_Comments-3836141094/NUREG-1407_Abstract_and_Comments.docx
Language: English

Reference Type: Journal Article
Record Number: 261
Author: USNRC
Year: 1992
Title: Methods for external event screening quantification: Risk methods integration and evaluation program (RMIEP) methods development
Journal: NUREG/CR
Volume: 4839
Pages: 130
Short Title: Methods for external event screening quantification: Risk methods integration and evaluation program (RMIEP) methods development
Keywords: Screening
High wind
Tornado hazard
aircraft crash
Transportation hazard
URL: http://pbadupws.nrc.gov/docs/ML0622/ML062260210.pdf
'File' Attachments: internal-pdf://NUREG_CR_4839_External_event_screeening_quantification-0668957509/NUREG_CR_4839_External_event_screeening_quantification.pdf
Language: English

Reference Type: Journal Article
Record Number: 225
Author: USNRC
Year: 1996
Title: Impact of structural aging on seismic risk assessment of reinforced concrete structures in nuclear power plants
Journal: NUREG/CR
Volume: 6425
Pages: 69
Type of Article: Technical Report
Short Title: Impact of structural aging on seismic risk assessment of reinforced concrete structures in nuclear power plants
Keywords: seismic hazard
Seismic PRA
Seismic PSA
aging
URL: http://www.osti.gov/scitech/servlets/purl/219359
'File' Attachments: internal-pdf://NUREG-CR-6225_Aging_seismic_risk_assessment_-0677250817/NUREG-CR-6225_Aging_seismic_risk_assessment_.pdf
Language: english

Reference Type: Journal Article
Record Number: 220
Author: USNRC
Year: 1997

Title: Recommendations for Probabilistic Seismic Hazard Analysis: Guidance on Uncertainty and Use of Experts
Journal: NUREG/CR
Volume: 26372
Pages: 280
Short Title: Recommendations for Probabilistic Seismic Hazard Analysis: Guidance on Uncertainty and Use of Experts
Keywords: seismic hazard
PSHA
uncertainty
aleatory uncertainty
epistemic uncertainty
URL: http://nnsa.energy.gov/sites/default/files/nnsa/multiplefiles2/SSHAC%201997%20NUREG%20CR-6372.pdf
'File' Attachments: internal-pdf://NUREG_CR-6372_1997_SSHAC-0825013505/NUREG_CR-6372_1997_SSHAC.pdf
Language: english

Reference Type: Journal Article
Record Number: 223
Author: USNRC
Year: 2002
Title: Structural Seismic Fragility Analysis of the Surry Containment
Journal: NUREG/CR
Volume: 6783
Pages: 136
Short Title: Structural Seismic Fragility Analysis of the Surry Containment
Keywords: Seismic design
Seismic hazard
containment
LOCA
URL: http://pbadupws.nrc.gov/docs/ML0229/ML022900737.pdf
'File' Attachments: internal-pdf://NUREG_2002_Seismic_fragility_containment_CR-6783-2991132929/NUREG_2002_Seismic_fragility_containment_CR-6783.PDF
Language: english

Reference Type: Journal Article
Record Number: 222
Author: USNRC
Year: 2004
Title: Parametric Evaluation of Seismic Behavior of Freestanding Spent Fuel Dry Cask Storage Systems
Journal: NUREG/CR
Volume: 6865
Pages: 422
Short Title: Parametric Evaluation of Seismic Behavior of Freestanding Spent Fuel Dry Cask Storage Systems
Keywords: seismic design
Seismic hazard
Spent fuel pool
URL: http://pbadupws.nrc.gov/docs/ML0511/ML051120008.pdf
'File' Attachments: internal-pdf://NUREG_2004_Seismic_spent_fuel_pool_CR-6865-0574942465/NUREG_2004_Seismic_spent_fuel_pool_CR-6865.pdf
Language: english

Reference Type: Journal Article
Record Number: 100
Author: USNRC
Year: 2007
Title: A Performance-Based Approach to Define the Site-Specific Earthquake Ground Motion
Journal: Regulatory Guide
Volume: 1.208
Pages: 53
Short Title: A Performance-Based Approach to Define the Site-Specific Earthquake Ground Motion
Keywords: Seismotectonic hazard
Vibratory ground motion hazard
PSHA

'File' Attachments: internal-pdf://U.S.NRC_01-208_Earthquake_Ground_Motion-3151064358/U.S.NRC_01-208_Earthquake_Ground_Motion.pdf
Language: English

Reference Type: Journal Article
Record Number: 217
Author: USNRC
Year: 2012
Title: Guidance for Performing the Integrated Assessment for External Flooding
Journal: JLD-ISG
Volume: 2012-05
Pages: 87
Short Title: Guidance for Performing the Integrated Assessment for External Flooding
Keywords: Flood hazard
Flood design
flood protection
URL: http://pbadupws.nrc.gov/docs/ML1231/ML12311A214.pdf
'File' Attachments: internal-pdf://USNRC_JLD-ISG-2012-05_Flooding-2500979713/USNRC_JLD-ISG-2012-05_Flooding.pdf
Language: english

Reference Type: Journal Article
Record Number: 218
Author: USNRC
Year: 2012
Title: Guidance for Performing a Tsunami, Surge, or Seiche Hazard Assessment
Journal: JLD-ISG
Volume: 2012-06
Pages: 52
Short Title: Guidance for Performing a Tsunami, Surge, or Seiche Hazard Assessment
Keywords: Flood hazard
Tsunami hazard
Seiche hazard
Storm surge hazard
URL: http://pbadupws.nrc.gov/docs/ML1231/ML12314A412.pdf
'File' Attachments: internal-pdf://USNRC_JLD-ISG-2012-06_Tsuniami_Seiche-0420769025/USNRC_JLD-ISG-2012-06_Tsuniami_Seiche.pdf
Language: english

Reference Type: Journal Article
Record Number: 219
Author: USNRC
Year: 2012
Title: NRC Collection of Abbreviations
Journal: NUREG
Volume: 0544
Issue: Revision 4
Pages: 133
Short Title: NRC Collection of Abbreviations
Keywords: glossary
abbreviation
acronym
URL: http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr0544/r4/
'File' Attachments: internal-pdf://USNRC_1998_Abbreviations-1679972865/USNRC_1998_Abbreviations.pdf
Language: english

Reference Type: Journal Article
Record Number: 221
Author: USNRC
Year: 2012
Title: Practical Implementation Guidelines for SSHAC Level 3 and 4 Hazard Studies
Journal: NUREG
Volume: 2117

Pages: 227
Short Title: Practical Implementation Guidelines for SSHAC Level 3 and 4 Hazard Studies
Keywords: seismic hazard
PSHA
SSHAC
URL: http://peer.berkeley.edu/ngaeast/wp-content/uploads/2012/03/NUREG-2117-FINAL-V2.pdf
'File' Attachments: internal-pdf://NUREG_2117_Implementation_SSHAC-4081128193/NUREG_2117_Implementation_SSHAC.pdf
Language: english

Reference Type: Journal Article
Record Number: 242
Author: USNRC
Year: 2012
Title: The Estimation of Very-Low Probability Hurricane Storm Surges for Design and Licensing of Nuclear Power Plants in Coastal Areas
Journal: NUREG-CR
Volume: 7134
Pages: 109
Short Title: The Estimation of Very-Low Probability Hurricane Storm Surges for Design and Licensing of Nuclear Power Plants in Coastal Areas
Keywords: High wind
Storm surge hazard
Hazard screening
Abstract: Design criteria for nuclear power plants require, in part, that structures, systems, and components important to safety be designed to withstand the effects of natural phenomena, including floods, without loss of capability to perform their safety functions. The objective of this project is to provide the NRC with a technical basis for estimating probable maximum water levels due to storm surge from extreme events along the southern coast of the U.S. A review of the existing guidance was conducted and limitations in the technical basis for estimating storm surge identified. Required updates based on the most recent data available and state-of-the practice analysis methods, tools, and models are recommended for NRC consideration. A deterministic-probabilistic approach for estimating very-low probability hurricane storm surges for design and licensing of nuclear power plants in coastal areas is developed. The proposed approach determines which factors affecting hurricane surges can be shown to have asymptotic upper limits and which factors should be treated within a context that allows for natural uncertainty in estimating an upper limit for surges at a specified site. The proposed approach is demonstrated through application at three nuclear plant sites. A screening method is also developed to determine if a prospective site is at risk of flooding from coastal storm surge. The proposed screening method includes criteria for proceeding or not proceeding to more detailed definitions of design-basis storm surges and explicitly considers local conditions and bathymetry that may affect water level estimates.
URL: http://pbadupws.nrc.gov/docs/ML1231/ML12310A025.pdf
'File' Attachments: internal-pdf://NUREG-CR-7134_Hurricane_storm_surge-0132195652/NUREG-CR-7134_Hurricane_storm_surge.pdf
Language: English

Reference Type: Journal Article
Record Number: 243
Author: USNRC
Year: 2013
Title: Guidance for Performing a Tsunami, Surge, or Seiche Hazard Assessment Interim Staff Guidance Revision 0
Journal: Japan Lessions-Learned Project Directorate
Volume: JLD-ISG-2012-06
Issue: ML12314A412

Pages: 52
Short Title: Guidance for Performing a Tsunami, Surge, or Seiche Hazard Assessment Interim Staff Guidance Revision 0
Keywords: Tsunami hazard
Storm surge hazard
Seiche hazard
High wind
Wave hazard
Coastal erosion hazard
Coastal sedimentation

Underwater debris
URL: http://pbadupws.nrc.gov/docs/ML1231/ML12314A412.pdf
'File' Attachments: internal-pdf://NUREG-JLD-ISG-2012-06_Tsunami_Surge_Seiche_2013-2934465860/NUREG-JLD-ISG-2012-06_Tsunami_Surge_Seiche_2013.pdf
Language: English

Reference Type: Journal Article
Record Number: 244
Author: USNRC
Year: 2013
Title: Guidance for Assessment of Flooding Hazards Due to Dam Failure Interim Staff Guidance Revision 0
Journal: Japan Lessions-Learned Project Directorate
Volume: JLD-ISG-2013-01
Issue: ML13151A153
Pages: 114
Short Title: Guidance for Assessment of Flooding Hazards Due to Dam Failure Interim Staff Guidance Revision 0
Keywords: Flooding
Dam failure
Water control structure
Screening
URL: http://pbadupws.nrc.gov/docs/ML1315/ML13151A153.pdf
'File' Attachments: internal-pdf://NUREG-JLD-ISG-2013-01_Dam_Failure_2013-2381244740/NUREG-JLD-ISG-2013-01_Dam_Failure_2013.pdf
Language: English

4.3 SCIENCE PAPERS

Reference Type: Journal Article
Record Number: 141
Author: M. Alatorre-Ibarguengoitia, Ramos-Hernández, S., Jiménez-Aguilar, J.
Year: 2014
Title: Hazard map for volcanic ballistic impacts at El Chichón volcano (Mexico)
Journal: Geophysical Research Abstracts
Volume: 16
Issue: EGU General Assembly 2014
Pages: EGU2014-7787
Type of Article: Abstract
Short Title: Hazard map for volcanic ballistic impacts at El Chichón volcano (Mexico)
Keywords: Volcanic hazard
'File' Attachments: internal-pdf://Alatorre_et_al_Volcanic_Ballistic_Impact_EGU2014-7787-2437220145/Alatorre_et_al_Volcanic_Ballistic_Impact_EGU2014-7787.pdf
Language: English

Reference Type: Journal Article
Record Number: 207
Author: D. Albarello, Camassi, R., Rebez, A.
Year: 2001
Title: Detection of Space and Time Heterogeneity in the Completeness of a Seismic Catalogue by a Statistical Approach: An Application to the Italian Area
Journal: Bulletin of the Seismological Society of America
Volume: 91
Issue: 6
Pages: 1694-1703
Short Title: Detection of Space and Time Heterogeneity in the Completeness of a Seismic Catalogue by a Statistical Approach: An Application to the Italian Area
Keywords: Seismic hazard
earthquake catalogue completeness
'File' Attachments: internal-pdf://Alborello_et_al_2001_Earthquake_catalogue_completeness_BSSA-3431730442/Alborello_et_al_2001_Earthquake_catalogue_completeness_BSSA.pdf
Language: English

Reference Type: Journal Article
Record Number: 245
Author: S. Annaka T., K., Sakakiyama, T.,Yanagisawa, K., Shuto, N.
Year: 2007
Title: Logic-tree Approach for Probabilistic Tsunami Hazard Analysis and its Applications to the Japanese Coasts
Journal: Pure and Applied Geophysics
Volume: 164
Pages: 577-592
Short Title: Logic-tree Approach for Probabilistic Tsunami Hazard Analysis and its Applications to the Japanese Coasts
Keywords: Tsunami hazard
Tsunami modeling
Probabilistic hazard assessment
Abstract: For Probabilistic Tsunami Hazard Analysis (PTHA), we propose a logic-tree approach to construct tsunami hazard curves (relationship between tsunami height and probability of exceedance) and present some examples for Japan for the purpose of quantitative assessments of tsunami risk for important coastal facilities. A hazard curve is obtained by integration over the aleatory uncertainties, and numerous hazard curves are obtained for different branches of logic-tree representing epistemic uncertainty. A PTHA consists of a tsunami source model and coastal tsunami height estimation. We developed the logic-tree models for local tsunami sources around Japan and for distant tsunami sources along the South American subduction zones. Logic-trees were made for tsunami source zones, size and frequency of tsunamigenic earthquakes, fault models, and standard error of estimated tsunami heights. Numerical simulation rather than empirical relation was used for estimating the median tsunami heights. Weights of discrete branches that represent alternative hypotheses and interpretations were determined by the questionnaire survey for tsunami and earthquake experts, whereas those representing the error of estimated value

were determined on the basis of historical data. Examples of tsunami hazard curves were illustrated for the coastal sites, and uncertainty in the tsunami hazard was displayed by 5-, 16-, 50-, 84- and 95-percentile and mean hazard curves.
URL: http://link.springer.com/article/10.1007%2Fs00024-006-0174-3
'File' Attachments: internal-pdf://Annaka_et_al_2007_Logic_tree_tsunami_hazard_analysis-2767456836/Annaka_et_al_2007_Logic_tree_tsunami_hazard_analysis.pdf
Language: English

Reference Type: Journal Article
Record Number: 165
Author: F. Arnaud, Revel, M., Chapron, E., Desmet, M., Tribovillard, N.
Year: 2005
Title: 7200 years of Rhone river flooding activity in Lake Le Bourget, France: a high-resolution sediment record of NW Alps hydrology
Journal: The Holocene
Volume: 15
Issue: 3
Pages: 420-428
Short Title: 7200 years of Rhone river flooding activity in Lake Le Bourget, France: a high-resolution sediment record of NW Alps hydrology
Keywords: Flood hazard
Paleoflood
'File' Attachments: internal-pdf://Arnaud_et_al_2005_Paleoflood_Rhone-1979327797/Arnaud_et_al_2005_Paleoflood_Rhone.pdf
Language: English

Reference Type: Journal Article
Record Number: 163
Author: F. Arnaud, Révillon, S., Debret, M., Revel, M., Chapron, E., Jacob, J., Giguet-Covex, C., Poulenard, J., Magny, M.
Year: 2012
Title: Lake Bourget regional erosion patterns reconstruction reveals Holocene NW European Alps soil evolution and paleohydrology
Journal: Quaternary Science Reviews
Volume: 51
Pages: 81-92
Short Title: Lake Bourget regional erosion patterns reconstruction reveals Holocene NW European Alps soil evolution and paleohydrology
Keywords: Flood hazard
Climate change
Paleoflood
'File' Attachments: internal-pdf://Arnaud_et_al_2012_Paleofloods_F-2565985333/Arnaud_et_al_2012_Paleofloods_F.pdf
Language: English

Reference Type: Journal Article
Record Number: 142
Author: F. Arnaud, Wilhelm, B., Giguet-Covex, C., Jenny, J.P., Fouinat, L., Sabatier, P., Debret, M., Révillon, S., Chapron, E., Revel, M.
Year: 2014
Title: Holocene geological records of flood regime in French Alps
Journal: Geophysical Research Abstracts
Volume: 16
Issue: EGU2014-6343
Type of Article: Abstract
Short Title: Holocene geological records of flood regime in French Alps
Keywords: Flood hazard
'File' Attachments: internal-pdf://Arnaud_et_al_Geological_Flood_Records_EGU2014-6343-0004676913/Arnaud_et_al_Geological_Flood_Records_EGU2014-6343.pdf
Language: English

Reference Type: Conference Proceedings
Record Number: 186

Author: A. Bareith, Elter, J., Karsa, Z., Siklossy, T.
Year of Conference: 2014
Title: External Events PSA for the spent fuel pool of the Paks NPP
Conference Name: PSAM 12 - Probabilistic Safety Assessment and Management
Conference Location: 22-27 June 2014, Sheraton Waikiki, Honolulu, Hawaii, USA
Pages: 10
Short Title: External Events PSA for the spent fuel pool of the Paks NPP
Keywords: PSA
extreme weather
spent fuel pool
URL: http://psam12.org/proceedings/paper/paper_305_1.pdf
'File' Atttachments: internal-pdf://Bareith_et_al_2014_Spent_fuel_pool_paper_305_1-4099856902/Bareith_et_al_2014_Spent_fuel_pool_paper_305_1.pdf
Language: English

Reference Type: Journal Article
Record Number: 123
Author: P. Bernadara, Parey, S.
Year: 2012
Title: Methodological Guide for the Study of Extreme Statistics
Journal: EDF R&D
Volume: H-P73-2008-04551-EN
Pages: 85
Short Title: Methodological Guide for the Study of Extreme Statistics
Keywords: Flood hazard
High wind hazard
Precipitation hazard
Sea wave hazard
Abstract: This methodological reference was designed to guide EDF engineers and junior researchers in a study to estimate probability of occurrence of extreme events. The guide, educational, contains a description of the basic steps for a study of extreme statistics to estimate the probability of occurrence of values of a few random variables. Examples related to natural hazards are reported in the second part of the guide
'File' Attachments: internal-pdf://Bernadara_Parey_H-P73-2008-04551-EN-1378579495/Bernadara_Parey_H-P73-2008-04551-EN.pdf
Language: English

Reference Type: Journal Article
Record Number: 89
Author: P. Bernardara, Andreewsky, M., Benoit, M.
Year: 2011
Title: Application of regional frequency analysis to the estimation of extreme storm surges
Journal: Journal of Geophysical Research
Volume: 116
Issue: C02008
Short Title: Application of regional frequency analysis to the estimation of extreme storm surges
DOI: 10.1029/2010JC006229
Keywords: Flood hazard
Storm surge hazard
Abstract: Traditionally, extreme value theory is applied to single-site series of surge observations in order to estimate the probability of occurrence of extreme events at that particular site. However, single-site analyses give uncertain estimation of extreme quantiles, mainly because of the limited duration of observation periods. In order to reduce this uncertainty, regional frequency analysis (RFA) approaches suggest collecting information not only from a single-site series but also from all (statistically) similar available series of observation. The use of RFA is widely increasing in geosciences, but few applications have been attempted yet for surge estimation. The aim of this study is to examine the applicability of RFA to extreme storm surges. The surge data observed at 18 French harbors, located on the Atlantic coast from the Spanish to Belgian borders, were collected. The series span a period of 30 years, on average, with the longest series going back to the 19th century. Stationary and independent samples of extreme surges (peaks over a given threshold) are extracted and their (statistical) homogeneity has been tested via heterogeneity and discordancy measures based on L moments. Homogeneous regions have been identified and, in order to merge information on frequency of occurrence of surges from all the sites, a surge index pooling method is defined. Finally, a regional frequency distribution has been estimated. The hypothesis and the applicability of RFA application are discussed, with some ideas for future developments in the research direction.

'File' Attachments: internal-pdf://Bernardara_et_al_2011_Storm_Surge_JGR-3101337889/Bernardara_et_al_2011_Storm_Surge_JGR.pdf

Reference Type: Journal Article
Record Number: 143
Author: J. Bonnet, Fradet, T., Traversa, P., Tuleau-Malot, C., Reynaud-Bouret, P., Lalooe, T., Manchuel, K.
Year: 2014
Title: Completeness period analysis of SisFrance macroseismic database and interpretation in the light of historical context
Journal: Geophysical Research Abstracts
Volume: 16
Issue: EGU2014-12118
Type of Article: Abstract
Short Title: Completeness period analysis of SisFrance macroseismic database and interpretation in the light of historical context
Keywords: Seismotectonic hazard
Earthquake catalogue completeness
Vibratory ground motion hazard
'File' Attachments: internal-pdf://Bonnet_et_al_Catalogue_Completeness_EGU2014-12118-1162667825/Bonnet_et_al_Catalogue_Completeness_EGU2014-12118.pdf
Language: English

Reference Type: Conference Proceedings
Record Number: 182
Author: J. L. Brinkman
Year of Conference: 2014
Title: Realistic Modelling of External Flooding Scenarios: A Multi-Disciplinary Approach
Conference Name: PSAM 12 - Probabilistic Safety Assessment and Management
Conference Location: 22-27 June 2014, Sheraton Waikiki, Honolulu, Hawaii, USA
Pages: 10
Short Title: Realistic Modelling of External Flooding Scenarios: A Multi-Disciplinary Approach
Keywords: Flood hazard
River flood hazard
Storm surge hazard
URL: http://psam12.org/proceedings/paper/paper_89_1.pdf
'File' Atttachments: internal-pdf://Brinkman_2014_Extermal_flooding_paper_89_1-3075859974/Brinkman_2014_Extermal_flooding_paper_89_1.pdf
Language: English

Reference Type: Conference Proceedings
Record Number: 170
Author: V. Busini, Derudi, M., Rota, R.
Year of Conference: 2014
Title: Safety of LPG rail transportation: influence of safety barriers
Conference Name: PSAM 12 - Probabilistic Safety Assessment and Management
Conference Location: 22-27 June 2014, Sheraton Waikiki, Honolulu, Hawaii, USA
Pages: 7
Short Title: Safety of LPG rail transportation: influence of safety barriers
Keywords: Transportation hazard
External explosion hazard
external fire hazard
rail transport
URL: http://psam12.org/proceedings/paper/paper_118_1.pdf
'File' Atttachments: internal-pdf://Busini_et_al_2014_Rail_transportation_paper_118_1-2688174854/Busini_et_al_2014_Rail_transportation_paper_118_1.pdf
Language: English

Reference Type: Journal Article
Record Number: 226
Author: M. Čepoin, Cizelj, L., Leskovar, M., Mavko, B.
Year: 2006
Title: Vulnerability Analysis of a Nuclear Power Plant Considering Detonations of Explosive Devices

Journal: Journal of Nuclear Science and Technology
Volume: 43
Issue: 10
Pages: 1258-1269
Short Title: Vulnerability Analysis of a Nuclear Power Plant Considering Detonations of Explosive Devices
Keywords: External events
Man-made hazard
Explosion hazard
Military hazard
Fragility
URL: http://www.tandfonline.com/doi/pdf/10.1080/18811248.2006.9711219
'File' Attachments: internal-pdf://Cepin_et_al_2006_Vulnerability_analysis_external_explosion-0472696320/Cepin_et_al_2006_Vulnerability_analysis_external_explosion.pdf
Language: English

Reference Type: Journal Article
Record Number: 121
Author: S. Cesca, Dost, B., Oth, A.
Year: 2013
Title: Preface to the special issue “Triggered and induced seismicity: probabilities and discrimination”
Journal: Journal of Seismology
Volume: 17
Pages: 1-4
Short Title: Preface to the special issue “Triggered and induced seismicity: probabilities and discrimination”
Keywords: Seismotectonic hazard
Vibratory ground motion hazard
Induced seismicity
Triggered seismicity
'File' Attachments: internal-pdf://Cesca_et_al_2013_Triggered_Induced_Seismicoity_J_Seismol-0085900583/Cesca_et_al_2013_Triggered_Induced_Seismicoity_J_Seismol.pdf
Language: English

Reference Type: Journal Article
Record Number: 200
Author: C. W. Chang, Lin, P.S., Tsai, C.L.
Year: 2011
Title: Estimation of sediment volume of debris flow caused by extreme rainfall in Taiwan
Journal: Engineering Geology
Volume: 123
Pages: 83-90
Short Title: Estimation of sediment volume of debris flow caused by extreme rainfall in Taiwan
Keywords: Debris flow hazard
Precipitation hazard
Rainfall hazard
'File' Attachments: internal-pdf://Chang_et_al_2011_Debris_flow_voume_Taiwan-1195209226/Chang_et_al_2011_Debris_flow_voume_Taiwan.pdf
Language: English

Reference Type: Journal Article
Record Number: 164
Author: E. Chapron, Desmet, M., De Putter, T., Loutre, M.F., Beck, C., Deconinck, J.F.
Year: 2002
Title: Climatic variability in the north-western Alps, France, as evidenced by 600 years of terrigenous sedimentation in Lake Le Bourget
Journal: The Holocene
Volume: 12
Issue: 2
Pages: 177-185
Short Title: Climatic variability in the north-western Alps, France, as evidenced by 600 years of terrigenous sedimentation in Lake Le Bourget
Keywords: Flood hazard
Paleoflood

'File' Attachments: internal-pdf://Chapron_et_al_2002_Paleofloods_F-2146832437/Chapron_et_al_2002_Paleofloods_F.pdf
Language: English

Reference Type: Conference Proceedings
Record Number: 185
Author: I. K. Choi, Kim, M.K., Rhee, H.M.
Year of Conference: 2014
Title: Probabilistic Tsunami Hazard Analysis for Nuclear Power Plants on the East Coast of Korean Peninsula
Conference Name: PSAM 12 - Probabilistic Safety Assessment and Management
Conference Location: 22-27 June 2014, Sheraton Waikiki, Honolulu, Hawaii, USA
Pages: 8
Short Title: Probabilistic Tsunami Hazard Analysis for Nuclear Power Plants on the East Coast of Korean Peninsula
Keywords: Tsunami hazard
URL: http://psam12.org/proceedings/paper/paper_289_1.pdf
'File' Atttachments: internal-pdf://Choi_et_al_2014_Tsunami_paper_289_1-0324848134/Choi_et_al_2014_Tsunami_paper_289_1.pdf
Language: English

Reference Type: Journal Article
Record Number: 144
Author: P. Denissenko, Didenkulova, I., Rodin, A., Listak, M., Pelinovsky, E.
Title: Experimental statistics of long wave runup on a plane beach
Journal: Journal of Coastal Research
Volume: Special Issue No. 65
Pages: 195-200
Short Title: Experimental statistics of long wave runup on a plane beach
ISSN: ISSN 0749-0208
Keywords: Flood hazard
Wave hazard
'File' Attachments: internal-pdf://Denissenko_Wave_Runup_J_Costal_Res_2013-1548758833/Denissenko_Wave_Runup_J_Costal_Res_2013.pdf
Language: English

Reference Type: Journal Article
Record Number: 196
Author: K. Ebisawa, Kamae, K., Annaka, T., Tsutsumi, H., Onouchi, A.
Year: 2009
Title: Current status and important issues on seismic hazard evaluation methodology in Japan
Journal: Nuclear Engineering and Technology
Volume: 41
Pages: 1223-1234
Short Title: Current status and important issues on seismic hazard evaluation methodology in Japan
Keywords: Seismic hazard
Seismic PRA
PSHA
Fault model
'File' Attachments: internal-pdf://Ebisawa_2009_Seismic_hazard_evaluation_Japan-2149825546/Ebisawa_2009_Seismic_hazard_evaluation_Japan.pdf
Language: English

Reference Type: Journal Article
Record Number: 145
Author: P. Fiorucci, Biondi, G., Campo, L., D'Andrea, M.
Year: 2014
Title: High resolution fire risk mapping in Italy
Journal: Geophysical Research Abstracts
Volume: 16
Issue: EGU2014-5405
Type of Article: Abstract
Short Title: High resolution fire risk mapping in Italy
Keywords: Wildfire hazard

'File' Attachments: internal-pdf://Fiorucci_Wildfire_Risk_Mapping_EGU2014-5405-2823936561/Fiorucci_Wildfire_Risk_Mapping_EGU2014-5405.pdf
Language: English

Reference Type: Journal Article
Record Number: 160
Author: D. Frère; A., C., Gailler, A., Hébert, H.
Year: 2014
Title: Sea level surges of June 2011 in the NE Atlantic Ocean: observations and possible interpretation
Journal: Natural Hazards
Short Title: Sea level surges of June 2011 in the NE Atlantic Ocean: observations and possible interpretation
DOI: DOI 10.1007/s11069-014-1103-x
Keywords: Flood hazard
Tsunami hazard
Metotsunami
'File' Attachments: internal-pdf://Frere_et_al_2014_Sea_Level_Surge-4023353909/Frere_et_al_2014_Sea_Level_Surge.pdf
Language: English

Reference Type: Conference Paper
Record Number: 259
Author: Y. Fukushima
Year: 2010
Title: PSHA for near-site earthquakes with sources difficult to be specified in advance, AV-20
Conference Name: First Kashiwazaki International Symposium on Seismic Safety of Nuclear Installations
Conference Location: 24-26 November 2010. Kashiwazaki, Japan
Pages: 27
Keywords: Seismic hazard
PSHA
URL: https://www.nsr.go.jp/archive/jnes/seismic-symposium10/presentationdata/2_sessionA/A-20.pdf
'File' Attachments: internal-pdf://Fukushima_2010_Near_site_earthquakes_PSHA-1221668677/Fukushima_2010_Near_site_earthquakes_PSHA.pdf
Language: English

Reference Type: Journal Article
Record Number: 146
Author: E. Gaume, Bain, V., Bernardara, P., et al.
Year: 2009
Title: A compilation of data on European flash floods
Journal: Journal of Hydrology
Volume: 367
Pages: 70-78
Short Title: A compilation of data on European flash floods
Keywords: Flood hazard
Flash flood hazard
'File' Attachments: internal-pdf://Gaume_et_al_Flash_Floods_Europe_J_Hydrol_2009-0307474993/Gaume_et_al_Flash_Floods_Europe_J_Hydrol_2009.pdf
Language: English

Reference Type: Journal Article
Record Number: 147
Author: E. Gaume
Year: 2014
Title: Flash floods in Europe: state of the art and research perspectives
Journal: Geophysical Research Abstracts
Volume: 2014
Issue: EGU2014-16882
Type of Article: Abstract
Short Title: Flash floods in Europe: state of the art and research perspectives
Keywords: Flood hazard
Flash flood hazard
'File' Attachments: internal-pdf://Gaume_Flasch_Floods_EGU2014-16882-1767179825/Gaume_Flasch_Floods_EGU2014-16882.pdf

Language: English

Reference Type: Conference Proceedings
Record Number: 140
Author: R. Griffith
Year of Conference: 2010
Title: What is the maximum credible event for hazard division 1.6 explosive articles?
Conference Name: Department of Defense Explosives Safety Board Seminar (34th) held in Portland, Oregon on 13-15 July 2010
Conference Location: Portland, Oregon
Pages: 24
Short Title: What is the maximum credible event for hazard division 1.6 explosive articles?
Keywords: Explosion hazard
Military hazard
Man-made hazard
Abstract: Many important explosive safety functions such as hazard analysis, explosives hazard classification and facility siting are based on the anticipated maximum credible event. This paper focuses on the maximum credible event for Hazard Division 1.6 explosive articles. The research Mr. Griffith has recently completed at the Pantex Plant examines several explosives safety documents including DOD6055.09-STD, NAVSEA OP 5, DDESB Technical Paper 14, UN/SCETDG/33/INF.54, and DOE M 4401.1-A, and outlines the various Hazard Division (HD) 1.6 maximum credible events (MCE) described within those documents. In this paper Mr. Griffith discusses the wide range of maximum credible events identified in those documents with hazards ranging from mass fire, projection of fragments, blast from the detonation of a single item without fragmentation, to no significant hazard. Unlike any other classifications of explosives, there is no empirical data to evaluate since there has never been a recorded accident involving HD 1.6 explosives. This paper does however compare the HD 1.6 test criteria of Series 7, Technical Bulletin 700-2 with the HD 1.6 MCEs descriptions identified in the various documents researched. The purpose of this paper is to highlight the need to develop a singular, universally accepted Hazard Division 1.6 maximum credible event. The standardized application of a definitive HD 1.6 MCE is essential for many fundamental explosive safety functions such as hazard analysis, facility siting, and the determination of appropriate operating limits.
'File' Atttachments: internal-pdf://Griffith_2010_Explosion_Hazard_ADA532266-1295691825/Griffith_2010_Explosion_Hazard_ADA532266.pdf
Language: Enlish

Reference Type: Conference Proceedings
Record Number: 173
Author: D. Hahm, Shin, S.S., Choi, I.
Year of Conference: 2014
Title: Preliminary Assessment of the Probabilistic Risk of Nuclear Power Plant against to the Aircraft Impact Loading
Conference Name: PSAM 12 - Probabilistic Safety Assessment and Management
Conference Location: 22-27 June 2014, Sheraton Waikiki, Honolulu, Hawaii, USA
Pages: 10
Short Title: Preliminary Assessment of the Probabilistic Risk of Nuclear Power Plant against to the Aircraft Impact Loading
Keywords: Aircraft crash
URL: http://psam12.org/proceedings/paper/paper_426_1.pdf
'File' Atttachments: internal-pdf://Hahm_et_al_2014_Aircraft_impact_paper_426_1-4131435782/Hahm_et_al_2014_Aircraft_impact_paper_426_1.pdf
Language: English

Reference Type: Conference Paper
Record Number: 254
Author: T. Hakata
Year: 2013
Title: Development of TsunamioSeismic PSA Software for Nuclear Power Plants in Multi-Unit Site, PSAM2013-1053
Conference Name: PSAM Topical Conference in Tokyo
Conference Location: 14-18 April 2013. Tokyo, Japan
Pages: 19
Keywords: Tsunami PSA
Seismic PSA
Multiunit
URL: http://www.see.eng.osaka-u.ac.jp/seeqe/seeqe/PSAM2013/OHP-PSAM2013-1053.pdf

'File' Attachments: internal-pdf://Hakata_2013_Tsunami_seismiuc_PSA-0071930181/Hakata_2013_Tsunami_seismiuc_PSA.pdf
Language: English

Reference Type: Journal Article
Record Number: 102
Author: T. C. Hanks, Abrahamson, N.A., Boore, D.M., Coppersmith, K.J, Knepprath, N.E.
Year: 2009
Title: Implementation of the SSHAC Guidelines for Level 3 and 4 PSHAs - Experience Gained from Actual Applications
Journal: U.S. Geological Survey Open File Report
Volume: 2009-1093
Pages: 66
Short Title: Implementation of the SSHAC Guidelines for Level 3 and 4 PSHAs - Experience Gained from Actual Applications
Keywords: Seismotectonic hazard
Vibratory ground motion hazard
PSHA
URL: http://pubs.usgs.gov/of/2009/1093/
'File' Attachments: internal-pdf://USGS_Level_3_4_SSHAC_guideline-3067741478/USGS_Level_3_4_SSHAC_guideline.pdf
Language: English

Reference Type: Conference Proceedings
Record Number: 177
Author: M. Hassel, Bouwer Utne, I., Vinnem, J.E.
Year of Conference: 2014
Title: Analysis Of The Main Challenges With The Current Risk Model For Collisions Between Ships and Offshore Installations On The Norwegian Continental Shelf
Conference Name: PSAM 12 - Probabilistic Safety Assessment and Management
Conference Location: 22-27 June 2014, Sheraton Waikiki, Honolulu, Hawaii, USA
Pages: 12
Short Title: Analysis Of The Main Challenges With The Current Risk Model For Collisions Between Ships and Offshore Installations On The Norwegian Continental Shelf
Keywords: Ship collision
URL: http://psam12.org/proceedings/paper/paper_266_1.pdf
'File' Atttachments: internal-pdf://Hassel_et_al_2014_Ship_collision_paper_266_1-2991169542/Hassel_et_al_2014_Ship_collision_paper_266_1.pdf
Language: English

Reference Type: Conference Proceedings
Record Number: 172
Author: J. Helander
Year of Conference: 2014
Title: Maritime oil spill risk assessment for Hanhikivi nuclear power plant
Conference Name: PSAM 12 - Probabilistic Safety Assessment and Management
Conference Location: 22-27 June 2014, Sheraton Waikiki, Honolulu, Hawaii, USA
Pages: 12
Short Title: Maritime oil spill risk assessment for Hanhikivi nuclear power plant
Keywords: Oil spill hazard
URL: http://psam12.org/proceedings/paper/paper_105_1.pdf
'File' Atttachments: internal-pdf://Helander_2014_Oil_spill_paper_105_1-4265494022/Helander_2014_Oil_spill_paper_105_1.pdf
Language: English

Reference Type: Conference Proceedings
Record Number: 171
Author: K. Holla, Ristvej, J.
Year of Conference: 2014
Title: Verification of Risk Assessment and Treatment model and Software tool in Chemical Establishments in Slovak Republic
Conference Name: PSAM 12 - Probabilistic Safety Assessment and Management
Conference Location: 22-27 June 2014, Sheraton Waikiki, Honolulu, Hawaii, USA

Pages: 10
Short Title: Verification of Risk Assessment and Treatment model and Software tool in Chemical Establishments in Slovak Republic
Keywords: Chemical release hazard

URL: http://psam12.org/proceedings/paper/paper_197_1.pdf
'File' Atttachments: internal-pdf://Holla_Ristvej_2014_Chemical_release_paper_197_1-0037518342/Holla_Ristvej_2014_Chemical_release_paper_197_1.pdf
Language: English

Reference Type: Journal Article
Record Number: 216
Author: N. Ingegneria
Year: 2013
Title: Hazards and threats ontology
Journal: Unpublished Report
Volume: Project reference number : HOME/2011/CIPS/AG/4000002102
Pages: 6
Short Title: Hazards and threats ontology
Keywords: External events
Hazard correlation
'File' Attachments: internal-pdf://NIER_2013_Hazards and threats ontology-0661425436/NIER_2013_Hazards and threats ontology.pdf
Language: English

Reference Type: Journal Article
Record Number: 148
Author: IPCC
Year: 2013
Title: Climate Change 2013 - The Physical Science Basis
Short Title: Climate Change 2013 - The Physical Science Basis
ISSN: ISBN 978-1-107-05799-1
Keywords: Climate change
Temperature hazard
Flood hazard
'File' Attachments: internal-pdf://IPCC_2013_WG1AR5_ALL_FINAL-3998762033/IPCC_2013_WG1AR5_ALL_FINAL.pdf
Language: English

Reference Type: Conference Paper
Record Number: 257
Author: K. Irie, Dan, K., Ikutama, S., Irikura, K.
Year: 2010
Title: Improvement of Kinematic Fault Models for Predicting Strong Motions by Dynamic Rupturing Simulation, AV-16
Conference Name: First Kashiwazaki International Symposium on Seismic Safety of Nuclear Installations
Conference Location: 24-26 November 2010. Kashiwazaki, Japan
Pages: 26
Keywords: Seismic hazard
active fault
active fault modeling
URL: https://www.nsr.go.jp/archive/jnes/seismic-symposium10/presentationdata/2_sessionA/A-16.pdf
'File' Attachments: internal-pdf://Irie_et_al_2010_Kinematic_fault_models-3116943429/Irie_et_al_2010_Kinematic_fault_models.pdf
Language: English

Reference Type: Conference Paper
Record Number: 129
Author: H. H. Jamnani, Karbassi, A., Lestuzzi, P.
Year: 2013
Title: Fling-step effect on the seismic behaviour of high-rise RC buildings during the Christchurch earthquake
Conference Name: 2013 NZSEE Conference
Pages: 6

Keywords: Seismotectonic hazard
Vibratory ground motion hazard
Flnge step
Capable fault hazard
Abstract: Fling-step and forward directivity, which can impose unexpected seismic demands on structures, are the main consequences of near-fault earthquakes. Although the adverse effect of forward directivity on structures behavior is determined to some level, the influence of fling-step (static offset) on the seismic response of structures has not been extensively investigated. Given the contradictory results reported in the few available studies, further investigation on the effect of fling-step on the seismic behavior of tall buildings seems important. To this end, the ground motion record at the Heathcoat Valley Primary School station from the 2011 New Zealand earthquake with fling-step has been selected. Subsequently, various single-degree-of-freedom systems with different fundamental period values have been considered and the displacement demands of each structure subjected to the ground motion record with and without fling-step have been investigated. The results show that the demands imposed on the structures without fling-step are relatively higher in some cases. It is shown that the amount of variability in the seismic demands can depend on the ratio of the fundamental period of the structure to the period of the fling-pulse.
'File' Attachments: internal-pdf://Hamidi_Jamani_et_al_2013_Flinge_Step-0004473895/Hamidi_Jamani_et_al_2013_Flinge_Step.pdf
Language: English

Reference Type: Conference Proceedings
Record Number: 230
Author: K. Jänkälä, Rantatainen, L., Vaurio, J.
Year of Conference: 2004
Title: Severe Weather Risk Assessment for Loviisa Power Plant
Editor: C. Spitzer, Schmocker, U., Dang, V.N.
Conference Name: PSAM 7 - ESREL 2004: Probabilistic Safety Assessment and Management
Conference Location: 14-18 June 2004, Hotel-Intercontinental Berlin, Germany
Publisher: Springer
Pages: 1510-1515
Short Title: Severe Weather Risk Assessment for Loviisa Power Plant
Keywords: extreme weather
meteorological hazard
high wind
Sea water level
Oil spill hazard
Extreme temperature
seasonal variation
PSA
Fault tree
power state
shutdown state
URL: http://link.springer.com/chapter/10.1007/978-0-85729-410-4_243
'File' Atttachments: internal-pdf://Jänkälä_et_al_PSAM 2004_Severe_Weather-0355689473/Jänkälä_et_al_PSAM 2004_Severe_Weather.pdf
Language: English

Reference Type: Journal Article
Record Number: 103
Author: N. R. A. Japan
Year: 2013
Title: Outline of New Regulatory Requirements for Light Water Nuclear Power Plants (Provisional Translation)
Short Title: Outline of New Regulatory Requirements for Light Water Nuclear Power Plants (Provisional Translation)
Keywords: Tsunami hazard
Vibratory ground motion hazard
Seismotectonic hazard
URL: http://www.nsr.go.jp/english/data/new_regulatory_requirements2.pdf
'File' Attachments: internal-pdf://Japan_new_regulatory_requirements_2_earthquake_tsunami-4057945638/Japan_new_regulatory_requirements_2_earthquake_tsunami.pdf
Language: English

Reference Type: Journal Article

Record Number: 159
Author: A. F. Jones, Macklin, M.G., Brewer, P.A.
Year: 2012
Title: A geochemical record of flooding on the upper River Severn, UK, during the last 3750 years
Journal: Geomorphology
Volume: 179
Pages: 89-105
Short Title: A geochemical record of flooding on the upper River Severn, UK, during the last 3750 years
Keywords: Flood hazard
River flood hazard
Paleoflood
'File' Attachments: internal-pdf://Jones_et_al_2012_Flooding_UK-1741513781/Jones_et_al_2012_Flooding_UK.pdf
Language: English

Reference Type: Conference Paper
Record Number: 256
Author: T. Kagawa
Year: 2010
Title: Probabilistic Approach Using Characteristic Source Model for Strong Motion Estimation, AV-15
Conference Name: First Kashiwazaki International Symposium on Seismic Safety of Nuclear Installations
Conference Location: 24-26 November 2010. Kashiwazaki, Japan
Pages: 35
Keywords: Seismic hazard
seismic source
'File' Attachments: internal-pdf://Kagawa_2010_Probabilistic_strong_motion_estimation-1438999877/Kagawa_2010_Probabilistic_strong_motion_estimation.pdf

Reference Type: Journal Article
Record Number: 130
Author: E. Kalkan, Kunnath, S.K.
Year: 2006
Title: Effects of Fling Step and Forward Directivity on Seismic Response of Buildings
Journal: Earthquake Spectra
Volume: 22
Issue: 2
Pages: 367-390
Short Title: Effects of Fling Step and Forward Directivity on Seismic Response of Buildings
Keywords: Seismotectonic hazard
Vibratory ground motion hazard
Flnge step
Capable fault hazard
Abstract: This paper investigates the consequences of well-known characteristics of near-fault ground motions on the seismic response of steel moment frames. Additionally, idealized pulses are utilized in a separate study to gain further insight into the effects of high-amplitude pulses on structural demands. Simple input pulses were also synthesized to simulate artificial fling-step effects in ground motions originally having forward directivity. Findings from the study reveal that median maximum demands and the dispersion in the peak values were higher for near-fault records than far-fault motions. The arrival of the velocity pulse in a near-fault record causes the structure to dissipate considerable input energy in relatively few plastic cycles, whereas cumulative effects from increased cyclic demands are more pronounced in far-fault records. For pulse-type input, the maximum demand is a function of the ratio of the pulse period to the fundamental period of the structure. Records with fling effects were found to excite systems primarily in their fundamental mode while waveforms with forward directivity in the absence of fling caused higher modes to be activated. It is concluded that the acceleration and velocity spectra, when examined collectively, can be utilized to reasonably assess the damage potential of near-fault records.
'File' Attachments: internal-pdf://Kalkan_Kunnath_2006_Flinge_Step-1934050087/Kalkan_Kunnath_2006_Flinge_Step.pdf

Reference Type: Journal Article
Record Number: 149
Author: M. Kämäräinen, Kahma, K.K., Jokinen, O., Johansson, M.M., Särkkä, J.
Year: 2014
Title: Modelling the variations and extremes of the sea level on the Finnish coast in the Baltic Sea
Journal: Geophysical Research Abstracts

Volume: 16
Issue: EGU2014-12186
Short Title: Modelling the variations and extremes of the sea level on the Finnish coast in the Baltic Sea
Keywords: Flood hazard
Seiche hazard
'File' Attachments: internal-pdf://Kämäräinen_et_al_Seiche_Baltic_Sea_EGU2014-12186-3533673781/Kämäräinen_et_al_Seiche_Baltic_Sea_EGU2014-12186.pdf
Language: English

Reference Type: Journal Article
Record Number: 88
Author: M. Knochenhauer, Louko, P.
Year: 2003
Title: Guidance for External Events Analysis
Journal: SKI Report
Volume: 02:27
Short Title: Guidance for External Events Analysis
ISSN: 1104-1374
Keywords: Hazard screening
'File' Attachments: internal-pdf://Knochenhauer_Luoko_SKI_R_02_27_SE_External_Events-2375121190/Knochenhauer_Luoko_SKI_R_02_27_SE_External_Events.pdf
Language: English

Reference Type: Conference Proceedings
Record Number: 189
Author: T. Kuramoto, Yamaguchi, A., Narumiya, Y., Ota, T., Mamizuka, Y.
Year of Conference: 2014
Title: Development of Implementation Standard Concerning the Risk Evaluation Methodology Selection for the External Hazards
Conference Name: PSAM 12 - Probabilistic Safety Assessment and Management
Conference Location: 22-27 June 2014, Sheraton Waikiki, Honolulu, Hawaii, USA
Pages: 12
Short Title: Development of Implementation Standard Concerning the Risk Evaluation Methodology Selection for the External Hazards
Keywords: External events
PRA
Natural hazard
Man-made hazard
Hazard screening
URL: http://psam12.org/proceedings/paper/paper_298_1.pdf
'File' Atttachments: internal-pdf://Kuramoto_et_al_2014_Natrural_hazards_list_and_evaluation_paper_298_1-2952874250/Kuramoto_et_al_2014_Natrural_hazards_list_and_evaluation_paper_298_1.pdf
Language: English

Reference Type: Journal Article
Record Number: 199
Author: C. W. Lin, Chang, W.S., Liu, S.H., Tsai, T.T., Lee, S.P., Tsang, Q.C., Shieh, C.L., Tseng, C.M.
Year: 2011
Title: Landslides triggered by the 7 August 2009 Typhoon Morakot in southern Taiwan
Journal: Engineering Geology
Volume: 123
Pages: 3-12
Short Title: Landslides triggered by the 7 August 2009 Typhoon Morakot in southern Taiwan
Keywords: Landslide hazard
Typhoon
Precipitation hazard
'File' Attachments: internal-pdf://Lin_et_al_2011_Typhoon_triggered_landslides_Taiwan-0842775562/Lin_et_al_2011_Typhoon_triggered_landslides_Taiwan.pdf
Language: English

Reference Type: Conference Proceedings
Record Number: 179
Author: J. Lin

Year of Conference: 2014
Title: Insights from the Risk Analysis of a Nearby Propane Tank Farm
Conference Name: PSAM 12 - Probabilistic Safety Assessment and Management
Conference Location: 22-27 June 2014, Sheraton Waikiki, Honolulu, Hawaii, USA
Pages: 12
Short Title: Insights from the Risk Analysis of a Nearby Propane Tank Farm
Keywords: External explosion hazard
External fire hazard
Chemical release hazard
URL: http://psam12.org/proceedings/paper/paper_508_1.pdf
'File' Atttachments: internal-pdf://Lin_2014_Extermal_explosion_paper_508_1-0558802950/Lin_2014_Extermal_explosion_paper_508_1.pdf
Language: English

Reference Type: Conference Proceedings
Record Number: 176
Author: J. C. Lin, Wakefield, D.J., Reddington, J.
Year of Conference: 2014
Title: Screening of Seismic-Induced Fires
Conference Name: PSAM 12 - Probabilistic Safety Assessment and Management
Conference Location: 22-27 June 2014, Sheraton Waikiki, Honolulu, Hawaii, USA
Pages: 11
Short Title: Screening of Seismic-Induced Fires
Keywords: Fire hazard
Seismic induced fire
URL: http://psam12.org/proceedings/paper/paper_590_1.pdf
'File' Atttachments: internal-pdf://Lin_et_al_2014_Seismic_induced_fires_paper_590_1-1128780038/Lin_et_al_2014_Seismic_induced_fires_paper_590_1.pdf
Language: English

Reference Type: Conference Proceedings
Record Number: 183
Author: J. C. Lin
Year of Conference: 2014
Title: Insights from the Analyses of Other External Hazards for Nuclear Power Plants
Conference Name: PSAM 12 - Probabilistic Safety Assessment and Management
Conference Location: 22-27 June 2014, Sheraton Waikiki, Honolulu, Hawaii, USA
Pages: 12
Short Title: Insights from the Analyses of Other External Hazards for Nuclear Power Plants
Keywords: Probable maximum events
Possible maximum events
PRA
Determínistic hazard assessment
URL: http://psam12.org/proceedings/paper/paper_149_1.pdf
'File' Atttachments: internal-pdf://Lin_2014_Extermal_hazard_maximum_events_paper_149_1-3042464774/Lin_2014_Extermal_hazard_maximum_events_paper_149_1.pdf
Language: English

Reference Type: Conference Proceedings
Record Number: 175
Author: N. Lovelace, Johnson, M., Lloyd, M.
Year of Conference: 2014
Title: Approach for Integration of Initiating Events into External Event Models
Conference Name: PSAM 12 - Probabilistic Safety Assessment and Management
Conference Location: 22-27 June 2014, Sheraton Waikiki, Honolulu, Hawaii, USA
Pages: 6
Short Title: Approach for Integration of Initiating Events into External Event Models
Keywords: External events
Initiating events
PRA
PSA
URL: http://psam12.org/proceedings/paper/paper_454_1.pdf

'File' Atttachments: internal-pdf://Lovelace_et_al_2014_Initiating_events_integration_paper_454_1-0826628614/Lovelace_et_al_2014_Initiating_events_integration_paper_454_1.pdf
Language: English

Reference Type: Conference Proceedings
Record Number: 169
Author: M. F. Marsaro, Alencar, M.H., de Ameida, A.T., Cavalcante, C.A.V.
Year of Conference: 2014
Title: Multidimensional risk evaluation: assigning priorities for actions on a natural gas pipeline
Conference Name: PSAM 12 - Probabilistic Safety Assessment and Management
Conference Location: 22-27 June 2014, Sheraton Waikiki, Honolulu, Hawaii, USA
Pages: 7
Short Title: Multidimensional risk evaluation: assigning priorities for actions on a natural gas pipeline
Pub Place: Honolulu, Hawaii, USA
Year Published:2014
Keywords: external fire hazard
external explosion hazard
gas pipeline
URL: http://psam12.org/proceedings/paper/paper_73_1.pdf
'File' Atttachments: internal-pdf://Marsaro_et_al_2014_gas_pipeline_paper_73_1-2285222406/Marsaro_et_al_2014_gas_pipeline_paper_73_1.pdf
Language: English

Reference Type: Journal Article
Record Number: 99
Author: R. K. McGuire
Year: 2009
Title: Issues in Probabilistic Seismic Hazard Analysis for Nuclear Facilities in the US
Journal: Nuclear Engineering and Technology
Volume: 41
Issue: 10
Pages: 1235-1242
Short Title: Issues in Probabilistic Seismic Hazard Analysis for Nuclear Facilities in the US
Keywords: Seismotectonic hazard
PSHA
Abstract: Probabilistic seismic hazard analysis (PSHA) is routinely conducted in the US for nuclear plants, for the determination of appropriate seismic design levels. These analyses incorporate uncertainties in earthquake characteristics in stable continental regions (where direct observations of large earthquakes are rare), in estimates of rock motions, in site effects on strong shaking, and in the damage potential of seismic shaking for engineered facilities. Performance goals related to the inelastic deformation of individual components, and related to overall seismic core damage frequency, are used to determine design levels. PSHA has the ability to quantify and document the important uncertainties that affect seismic design levels, and future work can be guided toward reducing those uncertainties.
'File' Attachments: internal-pdf://McGuire_2009_PSHA_NPP-0214740262/McGuire_2009_PSHA_NPP.pdf
Language: English

Reference Type: Journal Article
Record Number: 150
Author: D. Melnick, Cisternas, M., Moreno, M., Norambuena, R.
Year: 2012
Title: Estimating coseismic coastal uplift with an intertidal mussel: calibration for the 2010 Maule Chile earthquake (Mw = 8.8)
Journal: Quaternary Science Reviews
Volume: 42
Pages: 29-42
Short Title: Estimating coseismic coastal uplift with an intertidal mussel: calibration for the 2010 Maule Chile earthquake (Mw = 8.8)
Keywords: Seismotectonic hazard
Permanent ground displacement hazard
'File' Attachments: internal-pdf://Melnick_costal_uplift_QSR_2012-3080879157/Melnick_costal_uplift_QSR_2012.pdf
Language: English

Reference Type: Journal Article
Record Number: 205
Author: M. Merino, Stein, 'S., Adams, J.
Year: Submitted
Title: Have We Seen the Largest Earthquakes 1 in Eastern North America?
Journal: Bulletin of the Seismological Society of America
Pages: 22
Type of Article: Unpublished manuscript
Short Title: Have We Seen the Largest Earthquakes 1 in Eastern North America?
Keywords: Maximum magnitude
Maximum credible earthquake
Earthquake catalogue completeness
URL: http://www.earth.northwestern.edu/people/seth/Texts/ecmmax.pdf
'File' Attachments: internal-pdf://Merino_et_al_2013_Largest_Earthquake-0813390602/Merino_et_al_2013_Largest_Earthquake.pdf
Language: Entlish

Reference Type: Journal Article
Record Number: 151
Author: N. Mori, Janssen, P.
Year: 2006
Title: On Kurtosis and Occurrence Probability of Freak Waves
Journal: Journal of Physical Oceanography
Volume: 39
Pages: 1471-1483
Short Title: On Kurtosis and Occurrence Probability of Freak Waves
Keywords: Flood hazard
Wave hazard
Rogue wave
'File' Attachments: internal-pdf://Mori_Janssen_Freak_Wave_Frequency_2006-0296038965/Mori_Janssen_Freak_Wave_Frequency_2006.pdf

Reference Type: Conference Proceedings
Record Number: 195
Author: K. Muramatsu, Takada, T., Nishida, A., Uchiyama, T., Muta, H., Furuya, O., Fujimoto, S., Itoi, T.
Year of Conference: 2014
Title: Study on Next Generation Seismic PRA Methodology (1): Program Plan and Proposal of New Mathematical Framework (Presentation Only)
Conference Name: PSAM 12 - Probabilistic Safety Assessment and Management
Conference Location: 22-27 June 2014, Sheraton Waikiki, Honolulu, Hawaii, USA
Pages: 1
Short Title: Study on Next Generation Seismic PRA Methodology (1): Program Plan and Proposal of New Mathematical Framework (Presentation Only)
Keywords: Seismic hazard
PRA
Seismic PRA
Abstract: This is the first of a series of papers on a study on next generation seismic probabilistic safety assessment methodology being conducted by the authors as a three-year project “Reliability Enhancement of Seismic Risk Assessment of Nuclear Power Plants as Risk Management Fundamentals”, which was started in 2012 and is funded by the Ministry of Education, Culture, Sports, Science & Technology (MEXT) of Japan. This paper gives an overview of the program plan and a proposal of new mathematical framework of S-PRA. 1. Program Plan 1.1 Objective. This project, focusing on uncertainty assessment framework and utilization of expertise, and finally by developing relevant computer codes to improve reliability of seismic probabilistic risk assessment (SPRA) and to promote its further use of the SPRA, develops methodology for quantification of uncertainty associated with final results from SPRA in the framework of risk management of NPP facilities. The following scope are set.
1) Development of framework of probabilistic models for uncertainty quantification and Computer codes.
2) Aggregation of expert opinion on structure/equipment fragility estimation and development of implementation guidance on epistemic uncertainty (modeling uncertainty).
3) Study on applicability of SPRA to model plant 1.2 Expected goal
(1) Study on probabilistic models and treatment of epistemic uncertainty
a. Study on probabilistic models. Reviewing the current status of assessment procedures of accident sequence occurrence probability in the SPRA, this subprogram will develop a mathematical framework for estimating

uncertainty in SPRA results in a more comprehensive way taking into account uncertainty related to correlation effect of components failures and system modeling such as ET/FT (event tree/ fault tree), uncertainty of which it has been difficult to quantify so far.
b. Development of computer code Based on SECOM2-DQFM developed by JAEA, the proposed mathematical framework will be built-in in order to make it possible to estimate the accident sequence occurrence probability and its uncertainty.
(2) Study on quantification of epistemic uncertainty on fragility assessment
a. Elicitation of expert opinion. As a first step, survey of literatures on elicitation procedures and on organization of multi-experts group is done. There are two different groups: experts in the field of buildings and soil ground, experts in the field of pipe and equipment. These groups will conduct a pilot study on the use of expert judgment elicitation for identification and quantification of parameters to be used in fragility analyses.
b. Analytical study on building and soil ground A model plant is selected for seismic response analysis and sensitivity study. The model plant is based on a hypothetical plant on the actual ground site. In the first year of the project (FY2012) and available plant information and observed records will be surveyed to construct a standardized light water reactor buildings model, from which CAD data for 3-D analysis, mesh data, boundary condition data can be generated. Then this model will be used in the second and third years for various calculations to provide supporting information to the above expert group, including comparison of code prediction with observed building responses and sensitivity studies on the effects of uncertainty factors on the building response. This model will also be used for providing a set of building response data for use in component fragility analysis in the trial SPRA for a model plant.
URL: http://psam12.org/proceedings/thursday.html
Language: English

Reference Type: Conference Proceedings
Record Number: 184
Author: S. Nakamura, Yoshida, I., Shinoda, M., Kawai, T., Nakamura, H., Murata, M.
Year of Conference: 2014
Title: The next-generation risk assessment method about the effect of a slope and foundation ground on a facility in a nuclear power plant
Conference Name: PSAM 12 - Probabilistic Safety Assessment and Management
Conference Location: 22-27 June 2014, Sheraton Waikiki, Honolulu, Hawaii, USA
Pages: 9
Short Title: The next-generation risk assessment method about the effect of a slope and foundation ground on a facility in a nuclear power plant
Keywords: Slope instability
slope failure
geological hazard
URL: http://psam12.org/proceedings/paper/paper_245_1.pdf
'File' Atttachments: internal-pdf://Nakamura_et_al_2014_Slope_failure_paper_245_1-2891636230/Nakamura_et_al_2014_Slope_failure_paper_245_1.pdf
Language: English

Reference Type: Conference Proceedings
Record Number: 191
Author: Y. Narumiya, Hirano, M., Takada, T., Hayashi, K.
Year of Conference: 2014
Title: Revision of the AESJ Standard for Seismic Probabilistic Risk Assessment (1): Extension and enhancement of accident scenario
Conference Name: PSAM 12 - Probabilistic Safety Assessment and Management
Conference Location: 22-27 June 2014, Sheraton Waikiki, Honolulu, Hawaii, USA
Pages: 9
Short Title: Revision of the AESJ Standard for Seismic Probabilistic Risk Assessment (1): Extension and enhancement of accident scenario
Keywords: PRA
Seismic hazard
Seismic PRA
Fragility
URL: http://psam12.org/proceedings/paper/paper_389_1.pdf
'File' Atttachments: internal-pdf://Narumiva_et_al_2014_AESJ_Seismic_PRA_paper_389_1-0470428938/Narumiva_et_al_2014_AESJ_Seismic_PRA_paper_389_1.pdf
Language: English

Reference Type: Journal Article

Record Number: 167
Author: A. Nasir, Lenhardt, W., Hintersberger, E., Decker, K.
Year: 2013
Title: Assessing the completeness of historical and instrumental earthquake data in Austria and the surrounding areas
Journal: Austrian Journal of Earth Sciences
Volume: 106
Issue: 1
Pages: 90-102
Short Title: Assessing the completeness of historical and instrumental earthquake data in Austria and the surrounding areas
Keywords: Seismotectonic hazard
Vibratory ground motion hazard
Catalogue
'File' Attachments: internal-pdf://Nasir_et_al_AJES_2013-2404789046/Nasir_et_al_AJES_2013.pdf
Language: English

Reference Type: Journal Article
Record Number: 162
Author: A. Nekrasova, Kossobokov, V., Peresan, A., Magrin, A.
Year: 2014
Title: The comparison of the NDSHA, PSHA seismic hazard maps and real seismicity for the Italian territory
Journal: Natural Hazards
Volume: 70
Pages: 629–641
Short Title: The comparison of the NDSHA, PSHA seismic hazard maps and real seismicity for the Italian territory
DOI: DOI 10.1007/s11069-013-0832-6
Keywords: Seismotectonic hazard
Vibratory ground motion hazard
PSHA
'File' Attachments: internal-pdf://Nekrasova_et_al_2012_Seismic_Hazard_Mapping-1206456117/Nekrasova_et_al_2012_Seismic_Hazard_Mapping.pdf
Language: English

Reference Type: Journal Article
Record Number: 152
Author: I. Nikolkina, Didenkulova, I.
Year: 2011
Title: Rogue waves in 2006–2010
Journal: Natural Hazards and Earth System Sciences
Volume: 11
Pages: 2913–2924
Short Title: Rogue waves in 2006–2010
DOI: doi:10.5194/nhess-11-2913-2011
Keywords: Flood hazard
Wave hazard
Rogue wave
Catalogue
'File' Attachments: internal-pdf://Nikolkina_Rough_Wave_Catalogue_Nat_Haz_Earth_Syst_2011-0229047605/Nikolkina_Rough_Wave_Catalogue_Nat_Haz_Earth_Syst_2011.pdf
Language: English

Reference Type: Journal Article
Record Number: 158
Author: I. Nikolkina, Didenkulova, I.
Year: 2012
Title: Catalogue of rogue waves reported in media in 2006–2010
Journal: Natural Hazards
Volume: 61
Pages: 989–1006
Short Title: Catalogue of rogue waves reported in media in 2006–2010
DOI: DOI 10.1007/s11069-011-9945-y
Keywords: Flood hazard

Wave hazard
Rogue wave
Catalogue
'File' Attachments: internal-pdf://Nikolkina_Didenkulova_2012_Catalotue_Rogue_Waves-2093367605/Nikolkina_Didenkulova_2012_Catalotue_Rogue_Waves.pdf

Reference Type: Journal Article
Record Number: 153
Author: J. Nöggerath, Geller, R.J., Gusiakov, V.K.
Year: 2011
Title: Fukushima: The myth of safety, the reality of geoscience
Journal: Bulletin of the Atomic Scientists
Volume: 67
Issue: 5
Pages: 37-46
Short Title: Fukushima: The myth of safety, the reality of geoscience
DOI: DOI: 10.1177/0096340211421607
Keywords: Seismotectonic hazard
Tsunami hazard
Vibratory ground motion hazard
Flood hazard
'File' Attachments: internal-pdf://Noeggerath_et_al_Fukushima_Bull_Atom_Sci_2011-3970541365/Noeggerath_et_al_Fukushima_Bull_Atom_Sci_2011.pdf
Language: English

Reference Type: Journal Article
Record Number: 154
Author: L. O'Brien, Dudley, J.M., Dias, F.
Year: 2013
Title: Extreme wave events in Ireland: 14 680 BP–2012
Journal: Natural Hazards and Earth System Sciences
Volume: 13
Pages: 625-648
Short Title: Extreme wave events in Ireland: 14 680 BP–2012
Keywords: Flood hazard
Wave hazard
Rogue wave
Storm surge hazard
Catalogue
Paleoflood
'File' Attachments: internal-pdf://O_Brien_Extreme_Waves_Nat_haz_Earth_Syst_2013-2242831157/O_Brien_Extreme_Waves_Nat_haz_Earth_Syst_2013.pdf

Reference Type: Conference Paper
Record Number: 255
Author: K. Okumura
Year: 2010
Title: Evaluation of Near-site Active Faults and Effects on the Site Based on Geological Structures, AV-14
Conference Name: First Kashiwazaki International Symposium on Seismic Safety of Nuclear Installations
Conference Location: 24-26 November 2010. Kashiwazaki, Japan
Keywords: seismic hazard
active fault
URL: https://www.nsr.go.jp/archive/jnes/seismic-symposium10/presentationdata/2_sessionA/A-14.pdf
'File' Attachments: internal-pdf://Okumura_2010_Near_site_active_faults-2495712325/Okumura_2010_Near_site_active_faults.pdf
Language: English

Reference Type: Conference Proceedings
Record Number: 155
Author: M. Onorato, Osborne, A.R., Serio, M., Damiani, T.
Year of Conference: 2001
Title: Occurrence of Freak Waves from Envelope Equations in Random Ocean Wave Simulations
Conference Name: Proceedings Rogue Waves 2000

Short Title: Occurrence of Freak Waves from Envelope Equations in Random Ocean Wave Simulations
Keywords: Flood hazard
Wave hazard
Rogue wave
'File' Atttachments: internal-pdf://Onorato_et_al_Freak_Waves_2006-2360683317/Onorato_et_al_Freak_Waves_2006.pdf
Language: Englsih

Reference Type: Journal Article
Record Number: 131
Author: G. Ortner, Reitner, J.
Year: 2009
Title: Bestimmung des Alters eines Augleys im Lurnfeld mittels Radiokohlenstoffdatierung
Journal: Mitteilungen der Österreichischen Bodenkundl. Gesellschaft
Volume: 76
Pages: 31-36
Short Title: Bestimmung des Alters eines Augleys im Lurnfeld mittels Radiokohlenstoffdatierung
Keywords: Flood hazard
Paleoflood
'File' Attachments: internal-pdf://Ortner_Reitner_OeBG_Paleoflood_2009-0776584743/Ortner_Reitner_OeBG_Paleoflood_2009.pdf
Language: German

Reference Type: Journal Article
Record Number: 125
Author: S. Parey, Malek, F., Laurent, C., Dacunha-Castelle, D.
Year: 2007
Title: Trends and climate evolution: Statistical approach for very high temperatures in France
Journal: Climatic Change
Volume: 81
Pages: 331-352
Short Title: Trends and climate evolution: Statistical approach for very high temperatures in France
DOI: 10.1007/s10584-006-9116-4
Keywords: Climate change
Temperature hazard
Abstract: The existence of an increasing trend in average temperatures during the last 50 years is widely acknowledged. Furthermore, there is compelling evidence of the variability of extremes, and rapid strides are made in studies of these events. Indeed, by extending the results of the “extreme value theory” (EVT) to the non-stationary case, analyses can examine the presence of trends in extreme values of stochastic processes. Definition of extreme events, their statistical significance as well as their interpretations have to be handled with great care when used for environmental concerns and public safety. Thus, we will discuss the validity of the hypothesis allowing the use of mathematical theories for these problems. To answer safety requirements, respect installation norms and reduce public risk, return levels are a major operational goal, obtained with the EVT. In this paper, we give quantitative results for observations of high temperatures over the 1950–2003 period in 47 stations in France. We examined the validity of the non-stationary EVT and introduced the notion of return levels (RL) in a time-varying context. Our analysis puts particular accent on the difference between methods used to describe extremes, to perform advanced fits and tests (climatic science), and those estimating the probability of rare future events (security problems in an evolving climate). After enouncing the method used for trend identification of extremes in term of easily interpretable parameters of distribution laws, we apply the procedure to long series of temperature measurements and check the influence of data length on trend estimation. We also address the problem of choosing the part of observations allowing appropriate extrapolation. In our analysis, we determined the influence of the 2003 heat wave on trend and return-level estimation comparing it to the RL in a stationary context. The application of the procedure to 47 stations spread over France is a first step for a refined spatial analysis. Working on the behavior of distribution parameters while assessing trend identification is a primary tool.
'File' Attachments: internal-pdf://Parey_et_al_Temperature_Climatic_Change_2007_EDF-1882336039/Parey_et_al_Temperature_Climatic_Change_2007_EDF.pdf
Language: English

Reference Type: Journal Article
Record Number: 126
Author: S. Parey, Huong Hoang, T.T., Dacunha-Castelle, D.
Year: 2010
Title: Different ways to compute temperature return levels in the climate change context

Journal: Environmetrics
Volume: 2010
Short Title: Different ways to compute temperature return levels in the climate change context
DOI: 10.1002/env.1060
Keywords: Climate change
Extreme value theory
Temperature hazard
Abstract: The climate change context has raised new problems in the computation of temperature return levels (RLs) in using the statistical extreme value theory. This arises since it is not yet possible to accept the hypothesis that the series of maxima or of high level values are stationary, without at least verifying the assumption. Thus, in this paper, different approaches are tested and compared to derive high order RLs in the nonstationary context. These RLs are computed by extrapolating identified trends, and a bootstrap method is used to estimate confidence intervals. The identification of trends can be made either in the parameters of the extreme value distributions or in the mean and variance of the whole series. Then, a methodology is proposed to test if the trends in extremes can be explained by the trends in mean and variance of the whole dataset. If this is the case, the future extremes can be derived from the stationary extremes of the centered and normalized variable and the changes in mean and variance of the whole dataset. The RL can then be estimated as nonstationary or as stationary for fixed future periods. The work is done for both extreme value methods: block maxima and peak over threshold, and will be illustrated with the example of a long observation time series for daily maximum temperature in France.
'File' Attachments: internal-pdf://Parey_et_al_Temperature_Environmetrics_2010_EDF-env10.1002-2134308903/Parey_et_al_Temperature_Environmetrics_2010_EDF-env10.1002.pdf
Language: English

Reference Type: Journal Article
Record Number: 124
Author: S. Parey, Huong Hoang, T.T., Dacunha-Castelle, D.
Year: 2013
Title: The importance of mean and variance in predicting changes in temperature extremes
Journal: JOURNAL OF GEOPHYSICAL RESEARCH
Volume: 118
Pages: 1-12
Short Title: The importance of mean and variance in predicting changes in temperature extremes
DOI: 10.1002/jgrd.50629
Keywords: Temperature hazard
Climate change
Abstract: The important role of the evolution of mean temperature in the changes of extremes has been recently documented in the literature, and variability is known to play a role in the occurrence of extremes, too. This paper aims at further investigating the role of their evolutions in the observed changes of temperature extremes. Analyses are based on temperature time series for Eurasia and the United States and concern absolute minima in winter and absolute maxima in summer of daily minimum and maximum temperatures. A test is designed to check whether the extremes of the residuals after accounting for a time-varying mean and standard deviation can be considered stationary. This hypothesis is generally true for all extremes, seasons, and locations. Then, the comparison between the directly fitted parameters and the retrieved ones from those of the residuals compares favorably. Finally, a method is proposed to compute future return levels from the stationary return levels of the residuals and the projected mean and variance at the desired time horizon. Comparisons with return levels obtained through the extrapolation of significant linear trends identified in the parameters of the generalized extreme value (GEV) distribution show that the proposed method gives relevant results. It allows taking mean and/or variance trends into account in the estimation of extremes even though no significant trends in the GEV parameters can be identified. Moreover, the role of trends in variance cannot be neglected. Lastly, first results based on two CMIP5 climate models show that the identified link between mean and variance trends and trends in extremes is correctly reproduced by the models and is maintained in the future.
'File' Attachments: internal-pdf://Parey_et_al_Temperature_Extremes_EDF-JGR-atm2013_author-copy-1093580327/Parey_et_al_Temperature_Extremes_EDF-JGR-atm2013_author-copy.pdf
Language: English

Reference Type: Journal Article
Record Number: 247
Author: M. D. Petersen, Dawson, T.E., Chen, R., Cao, T., Wills, C.J., Schwartz, D.P., Frankel, A.D.
Year: 2011
Title: Fault Displacement Hazard for Strike-Slip Faults
Journal: Bulletin of the Seismological Society of America
Volume: 101
Pages: 805-825

Short Title: Fault Displacement Hazard for Strike-Slip Faults
Keywords: Capable fault hazard
Probabilistic hazard assessment
Abstract: In this paper we present a methodology, data, and regression equations for calculating the fault rupture hazard at sites near steeply dipping, strike-slip faults. We collected and digitized on-fault and off-fault displacement data for 9 global strike-slip earthquakes ranging from moment magnitude M 6.5 to M 7.6 and supplemented these with displacements from 13 global earthquakes compiled by Wesnousky (2008), who considers events up to M 7.9. Displacements on the primary fault fall off at the rupture ends and are often measured in meters, while displacements on secondary (off-fault) or distributed faults may measure a few centimeters up to more than a meter and decay with distance from the rupture. Probability of earthquake rupture is less than 15% for cells 200 m×200 m and is less than 2% for 25 m×25 m cells at distances greater than 200 m from the primary-fault rupture. Therefore, the hazard for off-fault ruptures is much lower than the hazard near the fault. Our data indicate that rupture displacements up to 35 cm can be triggered on adjacent faults at distances out to 10 km or more from the primary-fault rupture. An example calculation shows that, for an active fault which has repeated large earthquakes every few hundred years, fault rupture hazard analysis should be an important consideration in the design of structures or lifelines that are located near the principal fault, within about 150 m of well-mapped active faults with a simple trace and within 300 m of faults with poorly defined or complex traces.
URL: http://bssa.geoscienceworld.org/content/101/2/805.full.pdf+html
'File' Attachments: internal-pdf://Petersen_et_al_2011_Fault_displacement_hazard-1375927365/Petersen_et_al_2011_Fault_displacement_hazard.pdf
Language: English

Reference Type: Conference Proceedings
Record Number: 174
Author: J. C. Reinhardt, Daniels, M., Paté-Cornell, M.E.
Year of Conference: 2014
Title: Probabilistic Analysis of Asteroid Impact Risk Mitigation Programs
Conference Name: PSAM 12 - Probabilistic Safety Assessment and Management
Conference Location: 22-27 June 2014, Sheraton Waikiki, Honolulu, Hawaii, USA
Pages: 12
Short Title: Probabilistic Analysis of Asteroid Impact Risk Mitigation Programs
Keywords: Meteorite hazard
URL: http://psam12.org/proceedings/paper/paper_151_1.pdf
'File' Atttachments: internal-pdf://Reinhardt_et_al_2014_Meteorite_impact_paper_151_1-3812776198/Reinhardt_et_al_2014_Meteorite_impact_paper_151_1.pdf
Language: English

Reference Type: Journal Article
Record Number: 206
Author: A. Rovida, D'Amico, V., Meletti, C., Stucchi, M.
Year: 2011
Title: Assessing the completeness of SHEEC, the SHARE European Earthquake Catalogue
Pages: 7
Short Title: Assessing the completeness of SHEEC, the SHARE European Earthquake Catalogue
Keywords: Seismic hazard
earthquake catalogue completeness
URL: http://emidius.eu/SHARE/task3_1/SHEEC/docs/SHEEC_completeness_v3.pdf
'File' Attachments: internal-pdf://Rovida_et_al_2011_SHARE_SHEEC_completeness_v3-1401549834/Rovida_et_al_2011_SHARE_SHEEC_completeness_v3.pdf

Reference Type: Conference Proceedings
Record Number: 188
Author: K. Saito, Takeuchi, M., Uemura, T., Yamanaka, Y.
Year of Conference: 2014
Title: Seismic PRA for Kashiwazaki-Kariwa NPP
Conference Name: PSAM 12 - Probabilistic Safety Assessment and Management
Conference Location: 22-27 June 2014, Sheraton Waikiki, Honolulu, Hawaii, USA
Pages: 10
Short Title: Seismic PRA for Kashiwazaki-Kariwa NPP
Keywords: Seismic hazard
PRA
Seismic PRA
vulnerability

URL: http://psam12.org/proceedings/paper/paper_403_1.pdf
'File' Atttachments: internal-pdf://Saito_et_al_2014_Seismic_PRA_paper_403_1-2516484873/Saito_et_al_2014_Seismic_PRA_paper_403_1.pdf
Language: English

Reference Type: Conference Proceedings
Record Number: 194
Author: K. Saito, Takeuchi, M., Uemura, T., Yamanaka, Y.
Year of Conference: 2014
Title: Tsunami PRA for Kashiwazaki-Kariwa NPP
Conference Name: PSAM 12 - Probabilistic Safety Assessment and Management
Conference Location: 22-27 June 2014, Sheraton Waikiki, Honolulu, Hawaii, USA
Pages: 9
Short Title: Tsunami PRA for Kashiwazaki-Kariwa NPP
Keywords: Tsunami hazard
PRA
Tsunami PRA

URL: http://psam12.org/proceedings/paper/paper_402_1.pdf
'File' Atttachments: internal-pdf://Saito_et_al_2014_Tsunami_PRA_paper_402_1-2803493130/Saito_et_al_2014_Tsunami_PRA_paper_402_1.pdf
Language: English

Reference Type: Conference Paper
Record Number: 252
Author: K. Satake
Year: 2013
Title: The 2011 Tohoku Earthquake and Tsunami Hazard Assessment, PSAM2013-1094
Conference Name: PSAM Topical Conference in Tokyo
Conference Location: 14-18 April 2013. Tokyo, Japan
Pages: 46
Keywords: Tohoku earthquake
Tsunami hazard
URL: http://www.see.eng.osaka-u.ac.jp/seeqe/seeqe/PSAM2013/OHP-PSAM2013-1094.pdf
'File' Attachments: internal-pdf://Satake_2011_Tohoku_Earthquake_Tsunami_Assessment-2604864325/Satake_2011_Tohoku_Earthquake_Tsunami_Assessment.pdf
Language: English

Reference Type: Journal Article
Record Number: 202
Author: K. J. Shou, JHong, C.Y., Wu, C.C., Hsu, H.Y., Fei, L.Y., Lee, J.F., Wei, C.Y.
Year: 2011
Title: Spatial and temporal analysis of landslides in Central Taiwan after 1999 Chi-Chi earthquake
Journal: Engineering Geology
Volume: 123
Pages: 122-128
Short Title: Spatial and temporal analysis of landslides in Central Taiwan after 1999 Chi-Chi earthquake
Keywords: Landslide hazard
earthquake
'File' Attachments: internal-pdf://Shou_et_al_Earthquake_trigtgered_landslides_Taiwan-3024147978/Shou_et_al_Earthquake_trigtgered_landslides_Taiwan.pdf
Language: English

Reference Type: Conference Proceedings
Record Number: 190
Author: S. Smaddar, Hibino, K., Coman, O.
Year of Conference: 2014
Title: Technical Approach for Safety Assessment of Multi-Unit NPP Sites Subject To External Events
Conference Name: PSAM 12 - Probabilistic Safety Assessment and Management
Conference Location: 22-27 June 2014, Sheraton Waikiki, Honolulu, Hawaii, USA
Pages: 8
Short Title: Technical Approach for Safety Assessment of Multi-Unit NPP Sites Subject To External Events
Keywords: PSA

Multiunit
External hazard
Risk metric
Loss of offsite power
URL: http://psam12.org/proceedings/paper/paper_333_1.pdf
'File' Atttachments: internal-pdf://Samaddar_et_al_2014_Multiunit_external_hazard_paper_333_1-1845882122/Samaddar_et_al_2014_Multiunit_external_hazard_paper_333_1.pdf
Language: English

Reference Type: Conference Proceedings
Record Number: 178
Author: J. Sörman, Bäckström, O., Yang, L., Kuzmina, I., Lyubarskiy, A., El-Shanawany, M.
Year of Conference: 2014
Title: Method for Analysing Extreme Events
Conference Name: PSAM 12 - Probabilistic Safety Assessment and Management
Conference Location: 22-27 June 2014, Sheraton Waikiki, Honolulu, Hawaii, USA
Pages: 9
Short Title: Method for Analysing Extreme Events
Keywords: PRA
PSA
extreme events
Seismic hazard
URL: http://psam12.org/proceedings/paper/paper_459_1.pdf
'File' Atttachments: internal-pdf://Sörman_et_al_Extreme_event_analysis_paper_459_1-0994878470/Sörman_et_al_Extreme_event_analysis_paper_459_1.pdf
Language: English

Reference Type: Conference Proceedings
Record Number: 180
Author: A. Staid, Guikema, S.D., Nateghi, R., Quiring, S.M., Gao, M.Z.
Year of Conference: 2014
Title: Simulation Methods to Assess Long-Term Hurricane Impacts to U.S. Power Systems
Conference Name: PSAM 12 - Probabilistic Safety Assessment and Management
Conference Location: 22-27 June 2014, Sheraton Waikiki, Honolulu, Hawaii, USA
Pages: 10
Short Title: Simulation Methods to Assess Long-Term Hurricane Impacts to U.S. Power Systems
Keywords: Storm surge hazard
High wind hazard
Loss of offsite power
Power outage
URL: http://psam12.org/proceedings/paper/paper_80_1.pdf
'File' Atttachments: internal-pdf://Staid_et_al_2014_Storm_impact_on_power_grid_paper_80_1-3058770694/Staid_et_al_2014_Storm_impact_on_power_grid_paper_80_1.pdf
Language: English

Reference Type: Journal Article
Record Number: 198
Author: E. Storen, Paasche, O.
Year: 2014
Title: Scandinavian floods: From past observations to future trends
Journal: Global and Planetary Change
Volume: 113
Pages: 34-43
Short Title: Scandinavian floods: From past observations to future trends
Keywords: Flood hazard
Climate change

'File' Attachments: internal-pdf://Storen_Paasche_2014_Floods_Scandinavia-0388715786/Storen_Paasche_2014_Floods_Scandinavia.pdf
Language: English

Reference Type: Journal Article
Record Number: 156

Author: T. Swierczynski, Kämpf, L., Müller, P., Lauterbach, S., Brauer, A., Merz, B.
Year: 2014
Title: A high-resolution flood chronology recovered from varved sediments of Lake Mondsee of the last 7000 years and the triggering mechanisms beyond (Upper Austria)
Journal: Geophysical Research Abstracts
Volume: 16
Issue: EGU2014-965
Type of Article: Abstract
Short Title: A high-resolution flood chronology recovered from varved sediments of Lake Mondsee of the last 7000 years and the triggering mechanisms beyond (Upper Austria)
Keywords: Flood hazard
Paleoflood
'File' Attachments: internal-pdf://Swierczynski_7000y_Flood_Record_EGU2014-965-4089321013/Swierczynski_7000y_Flood_Record_EGU2014-965.pdf
Language: English

Reference Type: Conference Paper
Record Number: 253
Author: D. Tappin, Grilli, S., Harris, J., Masterlark, T., Kirby, J., Shi, F., Ma, G.
Year: 2013
Title: The Fukushima Dai-ichi accident: a geological perspective on the tsunami, PSAM2013-1096
Conference Name: PSAM Topical Conference in Tokyo
Conference Location: 14-18 April 2013. Tokyo, Japan
Pages: 51
Keywords: Tsunami hazard
Seismic hazard
Submarine landslide
PTHA
URL: http://www.see.eng.osaka-u.ac.jp/seeqe/seeqe/PSAM2013/OHP-PSAM2013-1096.pdf
'File' Attachments: internal-pdf://Tappin_et_al_2013_Fukushima_Dai-ichi_tsunami-0239510341/Tappin_et_al_2013_Fukushima_Dai-ichi_tsunami.pdf
Language: English

Reference Type: Journal Article
Record Number: 157
Author: P. Tierz, Sandri, L., Stefanescu, E.R., Patra, A., Marzocchi, W., Costa, A., Sulpizio, R.
Year: 2014
Title: Probabilistic volcanic hazard assessments of Pyroclastic Density Currents: ongoing practices and future perspectives
Journal: Geophysical Research Abstracts
Volume: 16
Issue: EGU2014-15580-1
Type of Article: Abstract
Short Title: Probabilistic volcanic hazard assessments of Pyroclastic Density Currents: ongoing practices and future perspectives
Keywords: Volcanic hazard
Pyroclastic flow hazard
'File' Attachments: internal-pdf://Tierz_Pyroclastic_Flows_EGU2014-15580-1-2025887541/Tierz_Pyroclastic_Flows_EGU2014-15580-1.pdf
Language: English

Reference Type: Conference Proceedings
Record Number: 181
Author: G. Tonn, Guikema, S., Ferreira, C., Quiring, S.
Year of Conference: 2014
Title: A Longitudinal Analysis of the Drivers of Power Outages During Hurricanes: A Case Study with Hurricane Isaac
Conference Name: PSAM 12 - Probabilistic Safety Assessment and Management
Conference Location: 22-27 June 2014, Sheraton Waikiki, Honolulu, Hawaii, USA
Pages: 11
Short Title: A Longitudinal Analysis of the Drivers of Power Outages During Hurricanes: A Case Study with Hurricane Isaac
Keywords: High wind hazard
Storm surge hazard

Loss of offsite power
Power outage

URL: http://psam12.org/proceedings/paper/paper_532_1.pdf
'File' Atttachments: internal-pdf://Tonn_et_al_2014_Storm_power_outage_paper_532_1-1297297670/Tonn_et_al_2014_Storm_power_outage_paper_532_1.pdf
Language: English

Reference Type: Conference Paper
Record Number: 258
Author: T. Uetake, Tokumitsu, R., Nishimura, I., Hijikata, K.
Year: 2010
Title: Propagation and Amplification of Seismic Ground Motion in Kashiwazaki-Kariwa Nuclear Power Station during the Niigataken Chuetsu-Oki Earthquake, AV-18
Conference Name: First Kashiwazaki International Symposium on Seismic Safety of Nuclear Installations
Conference Location: 24-26 November 2010. Kashiwazaki, Japan
Pages: 20
Keywords: Seismic hazard
Seismic ground motion
Site effects
URL: https://www.nsr.go.jp/archive/jnes/seismic-symposium10/presentationdata/2_sessionA/A-18.pdf
'File' Attachments: internal-pdf://Uetake_et_al_2010_Seismic_ground_motiion_Kashiwazaki-Kariwa-3519961413/Uetake_et_al_2010_Seismic_ground_motiion_Kashiwazaki-Kariwa.pdf

Reference Type: Journal Article
Record Number: 251
Author: USNRC
Year: 2012
Title: Confirmatory Analysis of Seismic Hazard at the Diablo Canyon Power Plant from the Shoreline Fault Zone
Journal: Research Information Letter
Volume: 12-01
Pages: 172
Short Title: Confirmatory Analysis of Seismic Hazard at the Diablo Canyon Power Plant from the Shoreline Fault Zone
Keywords: Seismic hazard
Diablo Canyon
URL: http://pbadupws.nrc.gov/docs/ML1212/ML121230035.pdf
'File' Attachments: internal-pdf://USNRC_2012_Seismic_Hazard_Diablo_Canyon_NPP-3406981189/USNRC_2012_Seismic_Hazard_Diablo_Canyon_NPP.pdf
Language: English

Reference Type: Journal Article
Record Number: 168
Author: K. Vanneste, Merino, M., Stein, S., Vleminckx, B., Brooks, E., Camelbeeck, T.
Year: 2014
Title: Maximum magnitude in the Lower Rhine Graben
Journal: Geophysical Research Abstracts
Volume: 16
Issue: EGU2014-6095
Short Title: Maximum magnitude in the Lower Rhine Graben
Keywords: Seismotectonic hazard
Vibratory ground motion hazard
Maximum magnitude
'File' Attachments: internal-pdf://Vaneste_et_al_Mmax_Rhine_EGU2014-6095-4291323707/Vaneste_et_al_Mmax_Rhine_EGU2014-6095.pdf
Language: English

Reference Type: Conference Proceedings
Record Number: 187
Author: J. P. Wang
Year of Conference: 2014
Title: A Procedure Estimating and Smoothing Earthquake Rate in a Region with the Bayesian Approach
Conference Name: PSAM 12 - Probabilistic Safety Assessment and Management

Conference Location: 22-27 June 2014, Sheraton Waikiki, Honolulu, Hawaii, USA
Pages: 8
Short Title: A Procedure Estimating and Smoothing Earthquake Rate in a Region with the Bayesian Approach
Keywords: Seismic hazard
Earthquake catalogue completeness

URL: http://psam12.org/proceedings/paper/paper_349_1.pdf#page=1&zoom=auto,-74,792
'File' Atttachments: internal-pdf://Wang_2014_Earthquake_rate_paper_349_1-2069934086/Wang_2014_Earthquake_rate_paper_349_1.pdf
Language: English

Reference Type: Journal Article
Record Number: 231
Author: Y. Wang, Rosowsky, D.V.
Year: 2013
Title: Characterization of joint wind–snow hazard for performance-based design
Journal: Structural Safety
Volume: 43
Pages: 21-27
Short Title: Characterization of joint wind–snow hazard for performance-based design
DOI: http://dx.doi.org/10.1016/j.strusafe.2013.02.004
Keywords: Natural hazard
Extreme weather
snow load
High wind
Design
Partial safety factors
'File' Attachments: internal-pdf://Wang_Rosowsky_2013_Joint_wind_snow_hazard-2285413633/Wang_Rosowsky_2013_Joint_wind_snow_hazard.pdf
Language: English

Reference Type: Journal Article
Record Number: 128
Author: J. Weiss, Bernardara, P.
Year: 2013
Title: Comparison of local indices for regional frequency analysis with an application to extreme skew surges
Journal: Water Resources Research
Volume: 49
Pages: 1-12
Short Title: Comparison of local indices for regional frequency analysis with an application to extreme skew surges
DOI: 10.1002/wrcr.20225
Keywords: Meteorological hazard
Flood hazard
Regional frequency analysis
Extreme value statistics
Abstract: Regional frequency analysis (RFA) is a valuable and well-known method which allows using all the information at the regional scale to improve the actual estimation of the probability of occurrence of extreme events at a given site. In the framework of the index flood method, a local index, representing the local specificities of a given site, is used to normalize at-site observations for the estimation of the regional distribution. It is an essential feature of this model, contrasting with common characteristics shared between the sites of the homogenous region. However, the specification of the local index can be a crucial point. In particular, the performance of the quantile estimator derived from a RFA can depend on the specification of the local index. Four regionalization models are proposed, where the local index is specified by different statistics in each model, and their performances are assessed through Monte Carlo simulations of several regional scenarios. Some guidelines are provided for the selection of the local index which is most adapted to the observed situation (including regional scenarios characterized by some degrees of asymmetry, homogeneity and inter-site correlation). A practical application on extreme skew storm surges is provided to illustrate the results.
'File' Attachments: internal-pdf://Weiss_Bernardara_2013_Extreme_Events-2050960423/Weiss_Bernardara_2013_Extreme_Events.pdf

Reference Type: Journal Article
Record Number: 201

Author: M. C. Weng, Wu, M.H., Ning, S.K., Jou´, Y.W.
Year: 2011
Title: Evaluating triggering and causative factors of landslides in Lawnon River Basin, Taiwan
Journal: Engineering Geology
Volume: 123
Pages: 72-82
Short Title: Evaluating triggering and causative factors of landslides in Lawnon River Basin, Taiwan
Keywords: Landslide hazard
Rainfall hazard
Earthquake
'File' Attachments: internal-pdf://Weng_et_al_2011_Landslide_triggering_Taiwan-0993998602/Weng_et_al_2011_Landslide_triggering_Taiwan.pdf
Language: English

Reference Type: Journal Article
Record Number: 166
Author: G. Wilhelm, Arnaud, F., Sabatier, P., Crouzet, C., et al.
Year: 2012
Title: 1400 years of extreme precipitation patterns over the Mediterranean French Alps and possible forcing mechanisms
Journal: Quaternary Research
Volume: 78
Pages: 1-12
Short Title: 1400 years of extreme precipitation patterns over the Mediterranean French Alps and possible forcing mechanisms
Keywords: Flood hazard
Precipitation hazard
Paleoflood
'File' Attachments: internal-pdf://Wilhelm_et_al_2012_Extreme_Precipitation_Records-4093737526/Wilhelm_et_al_2012_Extreme_Precipitation_Records.pdf
Language: English

Reference Type: Journal Article
Record Number: 161
Author: M. Wyss, Rosset, P.
Year: 2013
Title: Mapping seismic risk: the current crisis
Journal: Natural Hazards
Volume: 68
Pages: 49-52
Short Title: Mapping seismic risk: the current crisis
Keywords: Seismotectonic hazard
Vibratory ground motion hazard
PSHA
'File' Attachments: internal-pdf://Wyss_Rosset_2013_Seismic_Risk_Mapping-3488037173/Wyss_Rosset_2013_Seismic_Risk_Mapping.pdf
Language: English

Reference Type: Conference Proceedings
Record Number: 193
Author: A. Yamaguchi, Nakamura, S., Tsutsumi, Y., Iijima, T., Mihara, Y.
Year of Conference: 2014
Title: Revision of the AESJ Standard for Seismic Probabilistic Risk Assessment (3) Fragility Evaluation
Conference Name: PSAM 12 - Probabilistic Safety Assessment and Management
Conference Location: 22-27 June 2014, Sheraton Waikiki, Honolulu, Hawaii, USA
Pages: 7
Short Title: Revision of the AESJ Standard for Seismic Probabilistic Risk Assessment (3) Fragility Evaluation
Keywords: PRA
Seismic PRA
Seismic fragility
URL: http://psam12.org/proceedings/paper/paper_381_1.pdf
'File' Atttachments: internal-pdf://Yamaguchi_et_al_2014_AESJ_Seismic_PRA_paper_381_1-0454486282/Yamaguchi_et_al_2014_AESJ_Seismic_PRA_paper_381_1.pdf

Language: English

Reference Type: Journal Article
Record Number: 224
Author: M. Yokobayashi, Muramatsu, K., Oikawa, T.
Year: 2002
Title: Modeling of Human Error for a Seismic PSA
Journal: Nippon Genshiryoku Gakkai Wabun Ronbunshi
Volume: 1(1)
Pages: 95-105
Short Title: Modeling of Human Error for a Seismic PSA
Keywords: Human factor
Sensitivity analysis
Seismic hazard
Abstract: This paper describes a model for human error probability (HEP) for seismic probabilistic safety assessments (PSAs) of nuclear power plants and its application. Considering the factors unique to seismic events such as level of seismic motion and stress to the operators, the authors adopted a model called a limited ramp model (LRM), where HEP is assumed to be the same as that for internal event PSAs for zero level of seismic motion, and then increases linearly with seismic level to a constant at a certain seismic level. This model was applied to estimate the effect of human error on core damage frequency (CDF). Here, operator actions in the accident sequences initiated by loss of offsite power were categorized into two groups, short term actions and medium/long term actions, and parameters of the LRM for the HEP for each action were determined from available information on shaking table tests and an existing human reliability analysis method. The results showed that the effect of human error on the CDF was not significant for this case and indicated that, the modeling approach presented here is useful for examining the importance of various operator actions in seismic events. (author)
URL: https://www.jstage.jst.go.jp/article/taesj2002/1/1/1_1_95/_article
'File' Attachments: internal-pdf://Yokobayashi_et_al_2002_Human_error_seismic_PSA-1205250315/Yokobayashi_et_al_2002_Human_error_seismic_PSA.pdf
Language: Japanese

Reference Type: Journal Article
Record Number: 246
Author: R. R. Youngs, Arabasz, W.J., Anderson, R.E., et al.
Year: 2003
Title: A Methodology for Probabilistic Fault Displacement Hazard Analysis (PFDHA)
Journal: Earthquake Spectra
Volume: 19
Pages: 191-219
Short Title: A Methodology for Probabilistic Fault Displacement Hazard Analysis (PFDHA)
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Abstract: We present a methodology for conducting a site-specific probabilistic analysis of fault displacement hazard. Two approaches are outlined. The first relates the occurrence of fault displacement at or near the ground surface to the occurrence of earthquakes in the same manner as is done in a standard probabilistic seismic hazard analysis (PSHA) for ground shaking. The methodology for this approach is taken directly from PSHA methodology with the ground-motion attenuation function replaced by a fault displacement attenuation function. In the second approach, the rate of displacement events and the distribution for fault displacement are derived directly from the characteristics of the faults or geologic features at the site of interest. The methodology for probabilistic fault displacement hazard analysis (PFDHA) was developed for a normal faulting environment and the probability distributions we present may have general application in similar tectonic regions. In addition, the general methodology is applicable to any region and we indicate the type of data needed to apply the methodology elsewhere.
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