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|  |  | Start | Finish | TAVANA | Risk Engineering | Man-Hour(RE) |
| 0 | LPSA Level-1 | **04/21/2017** | **10/22/2018** | 68 | 32 |  |
| 1 | Preparation of LPSA Level-1 Procedure | 04/21/2017 | 05/05/2017 | 100 | 0 |  |
| 2 | Input data gathering and analysis for all of plant operational states and modes | **05/05/2017** | **01/20/2018** | 83 | 17 |  |
| 2-1 | Input data gathering, grouping and ordering  | 05/05/2017 | 11/06/2017 | 100 | 0 |  |
| 2-2 | Input data registration and analysis software  | 05/05/2017 | 01/05/2018 | 94 | 6 |  |
| 2-3 | Equipment reliability data analysis  | 10/07/2017 | 01/05/2018 | 66 | 34 |  |
| 2-4 | Approving and finalizing the results | 01/05/2018 | 01/20/2018 | 0 | 100 |  |
| 3 | Plant operational states and modes analysis  | **07/06/2017** | **12/06/2017** | 74 | 26 |  |
| 3-1 | NPP’s operational condition analysis  | 07/06/2017 | 08/21/2017 | 66 | 34 |  |
| 3-2 | Plant operational states analysis during the low power and shutdown modes  | 08/21/2017 | 11/21/2017 | 79 | 21 |  |
| 3-3 | Approving and finalizing the results | 11/21/2017 | 12/06/2017 | 0 | 100 |  |
| 4 | Identifying, grouping and analyzing initiating events for all of plant operational states and modes  | **07/06/2017** | **11/21/2017** | 76 | 24 |  |
| 4-1 | Identifying and revising initiating events’ groups | 07/06/2017 | 11/06/2017 | 75 | 25 |  |
| 4-2 | Initiating event frequency analysis | 10/07/2017 | 11/06/2017 | 100 | 0 |  |
| 4-3 | Approving and finalizing the results  | 11/07/2017 | 11/21/2017 | 0 | 100 |  |
| 5 | Accident sequence analysis for all of plant operational states and modes  | **08/06/2017** | **03/20/2018** | 43 | 57 |  |
| 5-1 | Control and mitigating function analysis (headings of ETs) | 08/06/2017 | 01/05/2018 | 40 | 60 |  |
| 5-2 | Event trees developments | 01/05/2018 | 02/19/2018 | 66 | 34 |  |
| 5-3 | Approving and finalizing the results | 02/19/2018 | 03/20/2018 | 0 | 100 |  |
| 6 | System analysis for all of plant operational states and modes | **08/06/2017** | **06/05/2018** | 58 | 42 |  |
| 6-1 | Analysis of equipment operational condition and failure modes | 08/06/2017 | 01/05/2018 | 60 | 40 |  |
| 6-2 | Primary dependency analysis | 11/07/2017 | 01/05/2018 | 67 | 33 |  |
| 6-3 | Fault trees development  | 12/06/2017 | 05/05/2018 | 75 | 25 |  |
| 6-4 | Approving and finalizing the results | 05/05/2018 | 06/05/2018 | 0 | 100 |  |
| 7 | LPSA Level-1 Quantification for all of plant operational states and modes  | **06/05/2018** | **09/21/2018** | 83 | 17 |  |
| 7-1 | Implementation and debugging of the model | 06/05/2018 | 08/06/2018 | 83 | 17 |  |
| 7-2 | Importance, uncertainty and sensitivity analysis | 08/06/2018 | 09/21/2018 | 83 | 17 |  |
| 8 | Analysis of quantitative results for all of plant operational states and modes | **08/06/2018** | **09/21/2018** | 50 | 50 |  |
| 8-1 | Interpretation of the results | 08/06/2018 | 08/21/2018 | 50 | 50 |  |
| 8-2 | Propose of corrective actions | 08/21/2018 | 09/21/2018 | 50 | 50 |  |
| 9 | Documentation  | **04/21/2017** | 09/21/2018 | 80 | 20 |  |

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|  |  | Start | Finish | TAVANA | Risk Engineering | Man-Hour(RE) |
| 0 | LPSA Level-2 ,Phase1 | **10/23/2018** | **10/22/2019** | 75 | 25 |  |
| 1 | Preparation of LPSA Level-2 Procedure | 10/23/2018 | 11/06/2018 | 100 | 0 |  |
| 2 | Input data gathering and analysis for all of plant operational states and modes  | **11/06/2018** | **01/05/2019** | 72 | 28 |  |
| 2-1 | Input data gathering, grouping and ordering | 11/06/2018 | 12/21/2018 | 87.5 | 12.5 |  |
| 2-2 | Equipment reliability data analysis  | 11/21/2018 | 12/21/2018 | 75 | 25 |  |
| 2-3 | Approving and finalizing the results | 12/22/2018 | 01/05/2019 | 0 | 100 |  |
| 3 | PSA Level-1, 2 interface for all of plant operational states and modes  | **12/06/2018** | **04/19/2019** | 81 | 19 |  |
| 3-1 | Preparation of PSA Level-1 model for jointing to Level-2 | 12/06/2018 | 01/05/2019 | 87.5 | 12.5 |  |
| 3-2 | Containment system analysis | 12/06/2018 | 01/05/2019 | 75 | 25 |  |
| 3-3 | Interface event trees development | 01/05/2019 | 03/06/2019 | 83 | 17 |  |
| 3-4 | Development and modification of fault trees | 01/21/2019 | 03/20/2019 | 87.5 | 12.5 |  |
| 3-5 | Approving and finalizing the results | 04/04/2019 | 04/19/2019 | 0 | 100 |  |
| 4 | Containment strength analysis | **12/06/2018** | **07/06/2019** | 69 | 31 |  |
| 4-1 | Containment structure investigation | 12/06/2018 | 02/04/2019 | 75 | 25 |  |
| 4-2 | Development and analysis of containment static model | 02/05/2019 | 06/20/2019 | 75 | 25 |  |
| 4-3 | Approving and finalizing the results | 06/20/2019 | 07/06/2019 | 0 | 100 |  |
| 5 | Sever accident qualitative analysis | **12/06/2018** | **07/06/2019** | 67 | 33 |  |
| 5-1 | Qualitative analysis of sever accident phenomena  | 12/06/2018 | 02/04/2019 | 57 | 43 |  |
| 5-2 | Containment event tree development  | 04/19/2019 | 06/20/2019 | 80 | 20 |  |
| 5-3 | Approving and finalizing the results | 06/21/2019 | 07/06/2019 | 100 | 0 |  |
| 6 | LPSA Level-2 Quantification for all of plant operational states and modes  | **07/06/2019** | **09/06/2019** | 87.5 | 12.5 |  |
| 6-1 | Implementation and debugging of the model | 07/06/2019 | 08/06/2019 | 75 | 25 |  |
| 6-2 | Importance, uncertainty and sensitivity analysis | 08/06/2019 | 09/06/2019 | 100 | 0 |  |
| 7 | Source term analysis | 07/06/2019 | 09/21/2019 | 80 | 20 |  |
| 8 | Analysis of quantitative results for all of plant operational states and modes | **09/06/2019** | **10/07/2019** | 71.5 | 28.5 |  |
| 8-1 | Interpretation of the results | 09/06/2019 | 09/21/2019 | 100 | 0 |  |
| 8-2 | Propose of corrective actions | 09/06/2019 | 10/07/2019 | 67 | 33 |  |
| 9 | Documentation  | 10/23/2018 | 10/22/2019 | 70 | 30 |  |

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|  |  | Start | Finish | TAVANA | Risk Engineering | Man-Hour(RE) |
| 0 | Risk Monitoring, Phase 1 | **04/04/2019** | **02/19/2020** | 78 | 22 |  |
| 1 | Preparation of Risk Monitoring Procedure | 04/04/2019 | 04/19/2019 | 100 | 0 |  |
| 2 | Input data gathering and analysis for all of plant operational states and modes  | **04/04/2019** | **07/06/2019** | 72 | 28 |  |
| 2-1 | Input data gathering, grouping and ordering | 04/04/2019 | 05/20/2019 | 87.5 | 12.5 |  |
| 2-2 | Equipment reliability data analysis  | 04/19/2019 | 06/20/2019 | 75 | 25 |  |
| 2-3 | Approving and finalizing the results | 06/20/2019 | 07/06/2019 | 0 | 100 |  |
| 3 | Development of primary Risk model for all of plant operational states and modes  | **04/19/2019** | **09/21/2019** | 82.5 | 17.5 |  |
| 3-1 | Development of risk logic model (LPSA conversion) | 05/20/2019 | 08/21/2019 | 75 | 25 |  |
| 3-2 | Modification of risk logic model based on continues equipment availability  | 08/21/2019 | 09/21/2019 | 75 | 25 |  |
| 3-3 | Development of continues equipment availability module for jointing to the Risk Watcher | 04/19/2019 | 09/21/2019 | 94 | 6 |  |
| 4 | Risk monitoring model validation for all of plant operational states and modes  | **09/21/2019** | **11/21/2019** | 80 | 20 |  |
| 4-1 | Implementation and debugging of the model | 09/21/2019 | 10/22/2019 | 75 | 25 |  |
| 4-2 | Importance, uncertainty and sensitivity analysis for similar cases with LPSA model | 10/22/2019 | 11/21/2019 | 83 | 17 |  |
| 5 | Analysis of quantitative results for all of plant operational states and modes | **11/21/2019** | **01/05/2020** | 60 | 40 |  |
| 5-1 | Interpretation of the results | 11/21/2019 | 12/06/2019 | 100 | 0 |  |
| 5-2 | Propose of corrective actions | 12/07/2019 | 01/05/2020 | 50 | 50 |  |
| 6 | Documentation  | 04/04/2019 | 01/20/2020 | 25 | 75 |  |

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|  |  | Start | Finish | TAVANA | Risk Engineering | Man-Hour(RE) |
| 0 | LPSA Level-1, Phase 2 | **09/23/2017** | **03/19/2020** |  |  |  |
| 1 | Accident sequence analysis for all of plant operational states and modes  | **09/23/2017** | **06/05/2019** | 69 | 31 |  |
| 1-1 | Thermo Hydraulic Analysis | 09/23/2017 | 03/20/2019 | 71.5 | 28.5 |  |
| 1-2 | Event tree modification  | 04/04/2019 | 05/05/2019 | 100 | 0 |  |
| 1-3 | Approving and finalizing the results | 05/05/2019 | 06/05/2019 | 0 | 100 |  |
| 2 | Human reliability analysis for all of plant operational states and modes  | **10/23/2018** | **01/20/2020** | 38 | 62 |  |
| 2-1 | Human reliability analysis | 10/23/2018 | 12/21/2019 | 40 | 60 |  |
| 2-2 | Approving and finalizing the results  | 12/21/2019 | 01/20/2020 | 0 | 100 |  |
| 3 | Common cause failure analysis for all of plant operational states and modes  | **10/23/2018** | **11/21/2019** | 33 | 67 |  |
| 3-1 | Common cause failure analysis  | 10/23/2018 | 10/22/2019 | 40 | 60 |  |
| 3-2 | Approving and finalizing the results  | 10/22/2019 | 11/21/2019 | 0 | 100 |  |
| 4 | System analysis for all of plant operational states and modes | **11/21/2019** | **01/05/2020** | 70 | 30 |  |
| 4-1 | Fault tree modification  | 11/21/2019 | 12/21/2019 | 87.5 | 12.5 |  |
| 4-2 | Approving and finalizing the results | 12/21/2019 | 01/05/2020 | 0 | 100 |  |
| 5 | LPSA Level-1 Quantification for all of plant operational states and modes  | **01/06/2020** | **02/04/2020** | 100 | 0 |  |
| 5-1 | Implementation and debugging of the model | 01/06/2020 | 01/20/2020 | 100 | 0 |  |
| 5-2 | Importance, uncertainty and sensitivity analysis | 01/20/2020 | 02/04/2020 | 100 | 0 |  |
| 6 | Analysis of quantitative results for all of plant operational states and modes | **02/04/2020** | **03/19/2020** | 60 | 40 |  |
| 6-1 | Interpretation of the results | 02/04/2020 | 02/19/2020 | 100 | 0 |  |
| 6-2 | Propose of corrective actions | 02/19/2020 | 03/19/2020 | 50 | 50 |  |
| 7 | Documentation  | 09/23/2017 | 03/19/2020 | 60 | 40 |  |

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|  |  | Start | Finish | TAVANA | Risk Engineering | Man-Hour(RE) |
| 0 | LPSA Level-2 Phase 2 | **04/04/2018** | **03/19/2020** | 69 | 31 |  |
| 1 | PSA Level-1, 2 interface for all of plant operational states and modes  | **10/23/2019** | **01/20/2020** | 55 | 45 |  |
| 1-1 | Human reliability analysis for all of plant operational states and modes | 10/23/2019 | 12/21/2019 | 50 | 50 |  |
| 1-2 | Fault tree modification | 12/22/2019 | 01/05/2020 | 100 | 0 |  |
| 1-3 | Approving and finalizing the results | 01/05/2020 | 01/20/2020 | 0 | 100 |  |
| 2 | Containment strength analysis | **07/06/2019** | **12/21/2019** | 64 | 36 |  |
| 2-1 | Development and analysis of containment dynamic model (including transients) | 07/06/2019 | 12/06/2019 | 70 | 30 |  |
| 2-2 | Approving and finalizing the results | 12/06/2019 | 12/21/2019 | 0 | 100 |  |
| 3 | Sever accident quantitative analysis for all of plant operational states and modes  | **04/04/2018** | **02/04/2020** | 74 | 26 |  |
| 3-1 | Development of sever accident model (using MELCOR) | 04/04/2018 | 01/05/2019 | 75 | 25 |  |
| 3-2 | Quantitative analysis of sever accident phenomena  | 01/05/2019 | 01/05/2020 | 74 | 26 |  |
| 3-3 | Containment event tree modification  | 01/05/2020 | 01/20/2020 | 100 | 0 |  |
| 3-4 | Approving and finalizing the results | 01/20/2020 | 02/04/2020 | 0 | 100 |  |
| 4 | Quantitative source term analysis for all of plant operational states and modes | **04/04/2019** | **02/19/2020** | 67 | 33 |  |
| 4-1 | Quantitative source term analysis for all of release categories  | 04/04/2019 | 02/04/2020 | 80 | 20 |  |
| 4-2 | Approving and finalizing the results | 02/04/2020 | 02/19/2020 | 0 | 100 |  |
| 5 | LPSA Level-2 Quantification for all of plant operational states and modes  | **02/19/2020** | **03/19/2020** | 71.5 | 28.5 |  |
| 5-1 | Interpretation of the results | 02/19/2020 | 03/05/2020 | 100 | 0 |  |
| 5-2 | Propose of corrective actions | 03/05/2020 | 03/19/2020 | 67 | 33 |  |
| 6 | Documentation  | 04/04/2018 | 03/19/2020 | 50 | 50 |  |

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|  |  | Start | Finish | TAVANA | Risk Engineering | Man-Hour(RE) |
| 0 | Risk Monitoring, Phase 2 | **04/03/2020** | **10/21/2020** | 51 | 49 |  |
| 1 | Risk monitoring model enhancement for all of plant operational states and modes  | **04/03/2020** | **09/05/2020** | 49 | 51 |  |
| 1-1 | Remove of LPSA model simplification  | 04/03/2020 | 08/05/2020 | 53 | 47 |  |
| 1-2 | Risk monitoring model enhancement  | 06/05/2020 | 09/05/2020 | 40 | 60 |  |
| 1-3 | Modification of continues equipment availability module for jointing to the Risk Watcher | 07/05/2020 | 09/05/2020 | 100 | 0 |  |
| 2 | Risk monitoring model validation for all of plant operational states and modes  | **09/06/2020** | **10/06/2020** | 75 | 25 |  |
| 2-1 | Implementation and debugging of the model | 09/06/2020 | 09/20/2020 | 83 | 17 |  |
| 2-2 | Importance, uncertainty and sensitivity analysis for similar cases with LPSA model | 09/20/2020 | 10/06/2020 | 67 | 33 |  |
| 3 | Analysis of quantitative results for all of plant operational states and modes | **10/06/2020** | **10/21/2020** | 60 | 40 |  |
| 3-1 | Interpretation of the results | 10/06/2020 | 10/21/2020 | 100 | 0 |  |
| 3-2 | Propose of corrective actions | 10/06/2020 | 10/21/2020 | 50 | 50 |  |
| 4 | Documentation  | 06/05/2020 | 10/21/2020 | 40 | 60 |  |