**![WANO2ndleveltop[1]]()![WANO2ndleveltop[1]]()**

**Отчёт о состоянии взаимодействия и оказания поддержки по критериям ВАО АЭС на ХХХ АЭС в 20YY г.**

**Report on the status of interaction and support per the WANO criteria for XXX NPP/YYY Utility in 20YY**

**WANO**

**Moscow Centre**

**Report**

**on the status of interaction and support per the WANO criteria for XXX NPP/YYY Utility in 20YY**

**XXX NPP / OO\_20YY**

City

20YY

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| --- | --- | --- |
| **Approval Sheet****APPROVED BY:** |  | **APPROVED BY:** |
| **ХХХ Plant Director****\_\_\_\_\_\_\_\_\_\_\_Name, Surname****«\_\_\_\_»\_\_\_\_\_\_\_\_\_ 20YY** |  | **WANO-MC Director** **\_\_\_\_\_\_\_\_\_\_\_Vasily Aksenov****«\_\_\_\_»\_\_\_\_\_\_\_\_\_ 20YY** |
| **AGREED:****Chief Engineer** **\_\_\_\_\_\_\_\_\_\_\_ Name, Surname****Заместитель главного инженера****по безопасности и надёжности****\_\_\_\_\_\_\_\_\_\_\_ Name, Surname** |  | **AGREED:****WANO-MC First Deputy Director****\_\_\_\_\_\_\_\_\_\_\_Anatoliy Kirichenko****WANO-MC Deputy Director****\_\_\_\_\_\_\_\_\_\_\_\_Sergey Frolov****WANO-MC Deputy Director****\_\_\_\_\_\_\_\_\_\_\_\_Sergiy Vybornov****Head of WANO-MC Representatives Group****\_\_\_\_\_\_\_\_\_\_\_\_Vadim Tarykin** |
|  |  | **DEVELOPED BY:****WANO-MC Representative at ХХХ NPP (Utility)****\_\_\_\_\_\_\_\_\_\_\_\_ Name, Surname** |

**Methods to Determine Interaction and Support Levels**

**Goals of the process of determining the interaction and support levels (member station/utility categorization process)**

The primary goal of determining the interaction and support levels (member station/utility categorization process) is to ensure reasonable and efficient distribution of the WANO-MC’s and WANO members’ resources in the planning of WANO activities based on the achieved level (category) of interaction and support. A supplementary goal of the process is to identify member stations/utilities who are providing their administrative and other resources for the WANO-MC programmes to support those stations/utilities that need additional support.

**Main principles for determining the interaction and support levels**

* Interaction and support levels are determined based on current, credible inputs and well-defined criteria.
* The criteria should be objective, measurable and unambiguous.
* The criteria should be based on the results of implementation of the WANO-MC programmes.
* Stations in specific life-time phases need special attention.
* The determined interaction and support level refers to a particular station only, and is not intended for comparing it with other stations/utilities.
* The criteria are used to determine the following:
	+ potential interaction and support levels for each plant/utility
	+ recommendations on the use of the administrative resource.
* The WANO-MC Representatives prepare preliminary data on the criteria and additional information needed to determine the interaction and support levels.
* The WANO-MC Expert-Analytical Group prepares the following:
	+ propose interaction and support levels for each WANO-MC member station/utility based on data per the criteria and available information on the plant performance and operating conditions
	+ recommended scope of the administrative resource to be provided
* The WANO-MC Director takes consideration of the WANO-MC Expert-Analytical Team’s proposals and makes the final decision on the interaction and support level as well as on the scope of administrative resource to be provided for each WANO-MC member station/utility.

**Criteria used to determine the interaction and support levels:**

1. Fulfilment of WANO Membership obligations, as follows:
	1. Hosting WANO peer reviews.
	2. Submitting event reports to WANO.
	3. Submitting information on WANO performance indicators.
	4. Providing experts to participate in WANO programmes at WANO's requests.
	5. Providing experts to fill in WANO vacancies at WANO’s requests.
2. Operational performance:
	1. Post-peer-review WANO Assessment results.
	2. Status of AFIs from the previous peer review as assessed by the follow-up peer review team.
	3. Achievement of long-term goals for the key WANO performance indicators.
	4. Status of the key WANO performance indicators.
	5. Occurrence of “Significant” or “Noteworthy” events.
	6. Corrective actions developed for the AFIs identified during the peer review.
	7. Member Support Missions (MSMs) conducted for the AFIs mentioned in the Executive Summary of the peer review report.
	8. SOER recommendation implementation status.
	9. Corrective actions developed based on the support missions’ recommendations.

**The primary support resources**

* **Budgetary resource:** Regular interaction between the WANO-MC personnel and the member station/utility personnel. The number of WANO activities corresponds to the achieved interaction and support level but should be no less than one MSM/workshop per year; the number of benchmarking missions is not limited.
* **Additional resource:** WANO activities in excess of the budget-based resource.
* **Administrative resource:** Interaction of the WANO-MC or WANO executives (including the WANO CEO and WANO Chairman) with the member station/utility executives in various formats such as visits, conferences, negotiations, correspondence, etc., to ensure improved performance, fulfilment of the WANO membership obligations and address identified gaps.

**Interaction and support levels**

Based on the achieved interaction and support levels, the following categories of support resources are possible:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Level****Resource** | A | B | C | D | E |
| Budgetary  | x | x | x | x | x |
| Additional |  |  | x | x | x |
| Administrative | (x) | (x) | (x) | x | x |

х - Mandatory provision of resource

(х) - Optional provision of resource.

**Based on the date per the criteria, the following potential interaction and support levels are to be considered for a member station/utility:**

**A**: Limits 2 and 3 for any of the criteria have not been reached, and the member station/utility provides support to other WANO-MC member stations/utilities by hosting benchmarking visits, providing experts to take part in WANO-MC activities at the request of the WANO-MC office, and providing information on the existing strengths and good practices.

**B**: Limits 2 and 3 for any of the criteria have not been reached.

**C**: Limit 2 has been reached for any one or two criteria, and Limit 3 has not been reached for any of the criteria.

**D**: Limit 3 has been reached for one or more criteria in the “Operational performance” section, or Limit 2 has been reached for four or more criteria.

**Е**: The station/utility was at Level D in the previous year and there is no improvement in the problem areas.

Level C of potential interaction and support is to be considered for stations/utilities that meet the following additional conditions (if there no conditions to consider Level D in other criteria):

* the station is about to start a new unit, or re-start an existing unit after a prolonged shutdown
* an older unit on the site is preparing for a large-scale upgrade, life-time extension or power uprate
* a unit on the site is in the decommissioning stage and nuclear fuel has been staying in the unit for three years
* a unit on the site contains nuclear fuel and has been in shutdown for longer than six months
* the station/utility is undergoing large-scale organisational changes that have an impact on the distribution of duties and responsibilities for nuclear safety (e.g. a change in the ownership or other changes than may have an impact on the distribution of duties and responsibilities for nuclear safety)
* the station remains first-of-its-kind in the utility’s fleet until positive follow-up peer review results are achieved
* the station/utility has communication problems (additional support within the administrative resource)
* difficulties exist as regards the access of experts to the station/utility or providing experts from the station/utility to take part in WANO activities (additional support within the administrative resource)

**Assessment of the XXX NPP/Utility status per the WANO criteria**

| **Criteria \ Limits** | **Limit 1** | **Limit 2** | **Limit 3** | **Description of the status per the criteria** | **Actual limit** |
| --- | --- | --- | --- | --- | --- |
| 1. **Fulfilment of WANO Membership obligations**
 |  |  |
| * 1. Hosting WANO peer reviews
 | * compliance with the prescribed frequency of WANO peer reviews or equivalent reviews
 | * non-compliance with the prescribed frequency of WANO peer reviews or equivalent reviews for over one year
 | * non-compliance with the prescribed frequency of WANO peer reviews or equivalent reviews for over two years
 | PR: provide the datesППП: provide the datesIf DIR ПП is planned: provide the dates | **Fulfilled****Limit 1** (2,3) |
| * 1. Submitting event reports to WANO [[1]](#footnote-1)
 | * reports to WANO on all “Significant” or “Noteworthy” events have been submitted within 140 days after the event occurred [[2]](#footnote-2)
 | * failure to submit up to three reports to WANO on “Significant” or “Noteworthy” events within 140 days after the event occurred
 | * failure to submit more than three reports to WANO on “Significant” or “Noteworthy” events within 140 days after the event occurred
 | In 20YY X WER were provided to WANO,Y out of which are “Significant”, andZ events are “Noteworthy”. | **Fulfilled****Limit 1** (2,3) |
| * 1. Submitting information on WANO performance indicators
 | * information on all WANO performance indicators has been submitted
 | * failure to submit information on all performance indicators for the last year
 | * failure to submit information on all performance indicators for the last two years
 | Information is provided to calculate the WANO PIs established for a particular unit. | **Fulfilled****Limit 1** (2,3) |
| * 1. Providing experts to fill in WANO vacancies at WANO’s requests
 | * no less than one expert per unit has been provided to participate in WANO activities and programmes outside the station over the last year
 | * less than one expert per unit has been provided to participate in WANO activities and programmes outside the station over the last year
 | * failure to provide experts to participate in WANO activities and programmes outside the station over the last year
 | In 20YY, X plant employees took part in external WANO activities | **Fulfilled****Limit 1** (2,3) |
| * 1. Providing experts to fill in WANO vacancies at WANO’s requests
 | * experts to fill in WANO vacancies have been provided over the last year
 | * failure to provide experts to fill in WANO vacancies at WANO request over the last year
 | * failure to provide experts to fill in WANO vacancies at WANO request over the last two years
 | Name, Surname. – WANO-MC advisor(s) (in the office)Name, Surname. – WANO-MC Representative | **Fulfilled****Limit 1** (2,3) |

|  |  |  |
| --- | --- | --- |
| 1. **Operational performance**
 |  |  |
| * 1. WANO Assessments result *(the criterion is used after the peer review and until the results of the follow-up peer review are obtained):*
 | * 1 or 2
 | * 3
 | * 4 or 5

or* 3 second time successively

or* deterioration of the score by 2 or more
 | PR planned/conducted: provide the dates. | ***WANO Assessment will be conducted after PR*** provide the dates***.******Or***In progressLimit 1 (2,3) |
| * 1. Status of AFIs from previous peer reviews identified by the follow-up peer review*(the criterion is used after the follow-up review till the following peer review):*
 | * level A or B[[3]](#footnote-3) for nuclear-safety-significant AFIs[[4]](#footnote-4)

andlevel A or B for all Safety Culture AFIs and* level A or B for at least 80% of all AFIs
 | * level C for no more than one nuclear-safely-significant AFI

or* level C for no more than one Safety Culture AFI

or* level C for more than 20% of all AFIs
 | * level C for two and more nuclear-safely-significant AFs

or* level C for two and more Safety Culture AFIs

or* level D for any AFI
 | In the final report of the follow-up peer review of 20YY at ХХХ NPP, out of Х AFIs:Y AFIs are rated as АZ AFIs are rated as BW AFIs are rated as CQ AFIs are rated as D (E)(N% AFIs are rated as А and В) | **Fulfilled****Limit 1** (2,3) |
| * 1. Achieving long-term goals[[5]](#footnote-5) for key WANO performance indicators[[6]](#footnote-6) *for the previous calendar year calculated* [[7]](#footnote-7) *as follows: К = number of indicators that have not achieved long-term goals [[8]](#footnote-8) / number of units*
 | * К≤1
 | * 1<К<3
 | * К≥3
 | If there are key performance indicators for which the long-term goals have not been reached in the previous year, then calculate the K factor. $$К=2$$(US7=2.09)(FLR=5.35) | **Fulfilled****Limit 2**  |
| * 1. Decline of key indicators during at least two quarters successively, calculated by the formula: K = number of indicators that have declined/ number of units
 | * К≤1
 | * 1<К<3
 | * К≥3
 | If there are key performance indicators that decline for no less than two quarters successively, then calculate the K factor.$$К=2$$(FLR:20Q3=5.22;20Q4=5.35)(US7:20Q3=2.03;20Q4=2.09) | **Fulfilled****Limit 2** |
| * 1. Occurrence of “Significant” or “Noteworthy” events that reveal major issues at the station.
 | * no “Significant” or “Noteworthy” events[[9]](#footnote-9)
 | * Significant” or “Noteworthy” events have occurred
 | * Significant” or “Noteworthy” events have occurred related to excessive radiation exposure or severe personnel injury
 | If no “Significant” or “Noteworthy” events have occurred, then indicate “None”. Otherwise, provide the title of the event. The period since the last categorization should be considered. | **Fulfilled****Limit 1** (2,3) |
| * 1. Development of corrective actions addressing AFIs after the peer review
 | * developed within three months after the peer review
 | * developed within a period over three months
 | * not developed
 | Indicate how long after the PR it took to develop the corrective action plan, provide the ID No. of the plan and the date when the order was issued to officially launch the plan. | **Fulfilled****Limit 1** (2,3) |
| * 1. Member Support Missions (MSMs) for AFIs mentioned in the Executive Summary of the peer review report
 | * MSMs for AFIs mentioned in the Executive Summary of the peer review report are hosted per the Interaction Plan and the achieved interaction level[[10]](#footnote-10)
 | * the hosting of MSMs for AFIs mentioned in the Executive Summary of the peer review report does not comply with the Interaction Plan and the achieved interaction level
 | * the hosting of MSMs for AFIs mentioned in the Executive Summary of the peer review report does not comply with the Interaction Plan and the achieved interaction level for more than two years successively
 | Indicate that the topics of MSMs conducted in the last 4-year period were based on the AFIs mentioned in the Executive Summary of the PR report, and provide information on the implementation of the Interaction Plans during this period.  | **Fulfilled****Limit 1** (2,3) |
| * 1. Status of SOER recommendation implementation *per the results of the last peer review or follow-up peer review:*
 | * less than 10% of the reviewed SOER recommendations are assessed as “Awaiting Implementation” based on WANO peer review results
 | * 10–25% of the reviewed SOER recommendations are assessed as “Awaiting Implementation” based on WANO peer review results
 | * more than 25% of the reviewed SOER recommendations are assessed as “Awaiting Implementation” based on WANO peer review results
 | Provide information on the SOER recommendations’ implementation status as assessed by the last PR or follow-up PR.  | **Fulfilled****Limit 1** (2,3) |
| * 1. Development of corrective actions addressing MSM recommendations:
 | * the corrective action plan for MSM recommendations has been developed on time[[11]](#footnote-11) and the corrective actions are being implemented as planned
 | * the corrective action plan for MSM recommendations has not been developed on time and the corrective actions have not been implemented within the specified time frames
 | * no corrective action plan for MSM recommendations has been developed
 | Indicate how long it has taken to develop the corrective action plan for each MSM and provide information on meeting the deadlines for the implementation of the corrective actions. | **Fulfilled****Limit 1** (2,3) |

The results of the assessment of the XXX NPP/utility status per the WANO criteria:

|  |  |  |  |
| --- | --- | --- | --- |
| **Group of criteria \ Limit** | **Limit 1** | **Limit 2** | **Limit 3** |
| 1. 1. Fulfilment of WANO Membership obligations
 | Х | Х | Х |
| 1. Operational Performance
 | Х | Х | Х |

Additional conditions to categorize the ХХХ plant / utility as “**C**” (if there are no conditions to categorize it as “**D**” per other criteria): None (otherwise, indicate the additional conditions) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Recommendations as to use the administrative resource (if the total of limits for all the criteria in Section 1 is greater than >5) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Expected interaction category \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

1. Per the information submittal process established in the respective utility. [↑](#footnote-ref-1)
2. The WANO criteria for the submittal of event reports to WANO and the criteria for the event significance levels are specified in the WANO document MN|01 “Operating experience Sub-Programme. WANO Reference Manual”. [↑](#footnote-ref-2)
3. AFI status is assessed on follow-up peer reviews as specified in the “Guideline for the Conduct of Peer Reviews at WANO-MC”. [↑](#footnote-ref-3)
4. AFIs for which a relationship to nuclear safety is identified. [↑](#footnote-ref-4)
5. Long-term goals are goals set forth in the WANO Long-Term Plan for the WANO key performance indicators. [↑](#footnote-ref-5)
6. Key Performance Indicators are WANO performance indicators for which long-term goals are established, as follows: FLR – Forced Loss Rate, CRE – Collective Radiation Exposure, TISA – Total Industrial Safety Accident Rate, SSPI – Safety System Performance Indicator, US7 – Unplanned Automatic Scrams per 7,000 Hours Critical. [↑](#footnote-ref-6)
7. Indicators are averaged over three years for this criteria. [↑](#footnote-ref-7)
8. The individual performance targets are based on the station key performance indicator values that are better than the 2007 worst quartile values for all stations. [↑](#footnote-ref-8)
9. The event significance criteria are specified in the WANO document MN|01 “Operating experience Sub-Programme. WANO Reference Manual”. Events that occurred due to external causes not related to plant performance are not taken into account. [↑](#footnote-ref-9)
10. The scope of support based on the achieved interaction level is recommended in the document G6.1-2015 “Guidance for Member Support”. [↑](#footnote-ref-10)
11. The time period established for the development and submittal of the corrective action plan is specified as three months in the document G2-2017 “Guidelines for the conduct of MSMs in WANO-MC”. [↑](#footnote-ref-11)