



WANO
GLOBAL LEADERSHIP IN NUCLEAR SAFETY

MOSCOW CENTRE

WANO MC

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№ MC-18/1476

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Pages 1+12

To: Mr. Hossein Ghaffari, Bushehr NPP Managing Director
Copy: Mr. Hamid Azarbad, WANO MC on site representative at Bushehr NPP
From: Dr. Vasily Aksenov, Director of WANO Moscow Centre
Subject: WANO- MC Member Support Mission

Dear Mr. Ghaffari,

In accordance with the request of the Bushehr NPP, WANO Moscow Centre will conduct a Member Support Mission (MSM) at the Bushehr NPP on the topic of 'Severe Accident Management system'. The Mission will be held on 08-11 December, 2018

The following experts will take part in MSM: Konjarek Damir (WANO-PC, Croatia), Arsenin Mykola (NNERGC "Energoatom", Ukraine), Blyednykh Vyacheslav (Zaporozhye NPP, Ukraine), Aydemirov Oleg (Rosenergoatom JSC, Russia) and team leader Goncharov Ivan (WANO Moscow Centre, Ukraine). The host interface representative of MSM will be Mr. Hamid Valikhani.

The completed registration forms and the scanned copies of the experts' passports has been sent to Mr. Hamid Azarbad.

Please find attached a draft MSM programme (Appendix 4).

The experts will arrive at Bushehr NPP on Friday, 07 December and depart on Tuesday, 11 December 2018.

In this regard I would ask you to arrange the MSM in accordance with the list of activities, to develop the Advanced Information Package, to estimate the cost of MSM budget in accordance with the items specified in attachment and send them to the WANO-MC before 21 November 2018 (Appendixes 1, 2, 3).

If you have any questions related to the MSM, please, do not hesitate to contact a WANO-MC adviser Mr. Ivan Goncharov at e-mail: Goncharov-iv@wanomc.ru.

Looking forward to further cooperation.

Best regards,

Dr. Vasily Aksenov
Director
WANO Moscow Centre

Appendix 1 - List of Activities
Appendix 2 - Information package
Appendix 3 - Items of MSM Preliminary Cost Estimation
Appendix 4 - Preliminary Program
Goncharov +74952210273



Members Support Mission

List of Activities

The list of activities for arranging and conducting the Members Support Mission in accordance with the documents WANO-MC

Nº	Activities		Comments
A.	Arrangement of TSM		
1.	To get the experts completed forms and copy of experts passports	<input type="checkbox"/>	
2.	To develop and send the Advanced Information Package to Team Leader	<input type="checkbox"/>	
3.	To send the invitation letters to the experts to apply for visas (if needed)	<input type="checkbox"/>	
4.	To get a permission for carrying the experts notebooks and mobile phones through the plant control check-point	<input type="checkbox"/>	
5.	To get a permission for entering the experts team to the plant and into the ionizing radiation zone (if needed)	<input type="checkbox"/>	
6.	To consider and agree the Members Support Mission Program	<input type="checkbox"/>	
7.	To appraise and agree with WANO Moscow Centre the Members Support Mission budget	<input type="checkbox"/>	
8.	To provide translation during the Members Support Mission (if needed)	<input type="checkbox"/>	
9.	To provide a needed training for the experts team before entering the plant	<input type="checkbox"/>	
B.	Experts Team Travelling, Accommodation and Working Conditions		
1.	To meet and pick up the experts team from airport (railway station) to the hotel and back	<input type="checkbox"/>	
2.	To provide a transport for the experts team during Members Support Mission carrying out	<input type="checkbox"/>	
3.	To ensure accommodation of the experts team during Members Support Mission carrying out		
4.	To provide a working room in the hotel with needed computer tools/equipment during Members Support Mission carrying out	<input type="checkbox"/>	
5.	To ensure internet access in the hotel during Members Support Mission carrying out	<input type="checkbox"/>	
C.	Meeting Room		
1.	To provide meeting room at the plant with the needed equipment <ul style="list-style-type: none"> • computer • printer • projector • screen • plugs for notebooks connection • adapters • office accessories 	<input type="checkbox"/>	



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Appendix 2

Advanced information package

WANO-MC, Member Support Mission:

".....specify the topic....."

..... NPP, XX-XX month 201... .

PART 1. PROBLEM AREA/PROCESS (MSM TOPIC)

1.1 PROBLEM CHARACTERISTICS

Problem statement	
Problem is related to:	<i>personnel...</i>
	<i>equipment...</i>
	<i>documents...</i>
	<i>organization/activity planning...</i>
	<i>other...</i>
The problem is related to AFI, if yes, specify the AFI	
When the problem is identified	
Who recorded the problem	
Cause of the problem	
Problem impact on one of the safety types	<i>Nuclear</i>
	<i>Radiation</i>
	<i>Industrial</i>
	<i>Labour safety</i>
	<i>Other (ecology, technical, physical, information etc)</i>
Problem impact on safety culture	
Specify whether the cause has a systematic or a local character	
Problem evaluation with the help of risk-management tools	
Problem evaluation from the point of view the consideration/non-consideration of the operating experience	
Cause why the problem wasn't identified earlier	
Additional questions to highlight problems	

Current state of the problem during the MSM	
Additional information	

1.2 Events at the NPP on the MSM topic for the last 2 years

The indicated events are both reportable and non-reportable. The information is provided on the basis of the documents containing these events.

Date of event	Number of the report (document)	Name of the deviation	Direct and root causes	Corrective actions

1.3 NPP Indicators

Specify NPP indicators for the last 3 (three) years related to the MSM topic. Specify in the table only that indicator which is related to the MSM topic (extra space is deleted) if none are related to the MSM topic the table is deleted from the AIP, the name of the part remains.

Indicator	Indicator explanation	Indicator value (year____)	Indicator value (year____)	Indicator value (year____)
SSPI	Safety system performance indicator (ECCS, emergency feed water system, emergency diesel generator)			
FLR	Forced loss rate			
CRE	Collective radiation exposure			
TISA	Total industrial safety instrument			
ISA	Industrial safety accident rate			
CISA	Contractor industrial safety accident rate			
US7	Unplanned total scrams (automatic + manual)			
UA7	Unplanned automatic scrams			
FRI	Fuel reliability			
CPI	Chemistry performance			
UCF	Unit capability factor			
UCLF	Unplanned capability loss factor			
GRLF	Grid-related loss factor			

1.4 Organization of process on issue elimination

Specify organizational-executive documents, plans, activities, actions etc related to the elimination of the problem.

1.5 Additional information important for the problem understanding

Specify additional information that can contribute to the understanding and solution of the problem.

1.6 List of NPP documents related to the MSM topic

Provide a list of documents that you are ready to forward to the experts at their request after they receive AIP.

1.7 Objectives and MSM desirable results

Specify objectives and desirable results that are provided in the request for the MSM. If indicated objective and desirable results are different from those ones indicated previously in the request, state the reasons of the change.

PART 2. GENERAL INFORMATION**2.1 ADDRESS OF THE SITE AND CONTACTS**

Address of the NPP/utility	
Phone number	
Fax	

2.2 INTERFACE OFFICER - ASSIGNED BY THE NPP/UTILITY AND IS RESPONSIBLE FOR LODGING, TRANSPORT, MEALS, ACCESS TO THE NPP AND OTHER ORGANIZATIONAL ISSUES RELATED TO THE MSM.

Surname, name, patronymic name (in full)	
Position	
Phone number	
Fax	
Cell phone number	
e-mail	

2.3 NPP HOST INTERFACE REPRESENTATIVE — ASSIGNED BY THE NPP/UTILITY FOR THE SOLUTION OF TECHNICAL ISSUES DIRECTLY AT THE MSM SITE; THE PERSON IS ALSO MSM REQUESTER.

Surname, name, patronymic name (in full)	
Position	
Phone number	
Fax	
Cell phone number	
e-mail	

2.4 WANO-MC ON-SITE REPRESENTATIVE — CARRIES OUT COORDINATOR'S FUNCTIONS TO ENSURE SUCCESSFUL MSM. IN CASE OF THE REPRESENTATIVE ABSENCE, THE NPP/UTILITY ASSIGNS A RESPONSIBLE BODY WHO WILL CARRY OUT COORDINATOR'S FUNCTIONS.

Surname, name, patronymic name (in full)	
Position	
Phone number	
Fax	
Cell phone number	

e-mail	
--------	--

2.5 Logistics

Venue of the MSM team meeting	
Route (from /to)	
Transport	
Travel time	
Surname, Name, Patronymic name of the awaiting person	
Phone number of the awaiting person	
Additional phone number (for reference)	
Working time of the NPP/utility	
Additional information	

2.6 Team accommodation at the hotel

Hotel address, website	
Travel time (to the MSM venue)	
Working room at the hotel	
Facilities of the working room at the hotel:	
Computer	
Projector	
Printer	
Board	
Stationary materials	
Room description	
Voltage, types of power sockets in the room	
Availability of the Internet at the hotel	
Breakfast/lunch/dinner at the hotel	
Additional information	

2.7 Practical advice

Temperature (expected weather conditions) in the period of MSM	
Recommendation on clothes taking into consideration local weather conditions	
Main currency	
Exchange rate	
Possibility to use credit cards	
Food recommendations	
Information on medical issues/ medical aid	
Additional information	

2.8 Access to the NPP/ utility.**a. Access to the plant**

Procedure of access to the NPP (passes, access to the territory/rooms)	
Possibility to use mobile phones, memory sticks, discs etc	
Types of briefings	<i>Radiation, fire protection, industrial safety, labour safety etc</i>
Whole body counter control	
Prohibitions	<i>It is forbidden to bring explosives, radioactive and poisonous materials, chemicals, flammable liquids, explosive substances, drugs and alcohol drinks to the territory of the NPP/utility. At the NPP territory it is forbidden to use photo, television and video equipment (including phones with integrated cameras), sound recording equipment.</i>
Requirement for information about earlier received doses, health certificate (for the last 5 years)	
Requirements to personal protective equipment	
Additional information	

b. Venue of MSM at the NPP/utility

Specify a working room of the MSM team	
Room facilities	
Amount of seats	
Computer	
Projector	
Printer	
Board	
Stationary materials	
Availability of the Internet in the room	
Additional information	

c. Recommended clothes/ Dress code

During the MSM it is recommended to stick to the official dress-code. On the days of MSM opening and closing- meetings with ties. On other days- casual style.

d. General rules of MSM team behavior at the NPP site.

MSM team is allowed to be at the territory of the NPP only accompanied by specially designated persons. Moving at the NPP territory allowed in accordance with the elaborated safety routes approved by the NPP Chief Engineer. It is forbidden to deviate from the established routes without the permission of the accompanying person.

e. General rules of MSM team behavior in case of the emergency situation at the NPP.

Personal protective equipment will be provided for the experts when visiting the RCA. Detailed information how to use personal protective equipment at the NPP territory will be provided during the initial briefing.

Indicate the alarm signal «Emergency preparedness» etc

In case of the emergency situation voice data will be provided three times "Attention! "Emergency preparedness" or "Emergency situation" is announced at the NPP". The alarm will be switched on within 3 minutes. It is necessary to listen to the provided information, stop working and, accompanied by the designated person, proceed to the working room.

2.9 Operating organization structure

Specify brief scheme of the organizational structure of the utility.

2.10 Organizational structure of the NPP /utility

Provide the scheme of the NPP/utility organizational structure.

Specify a position of the responsible person for the MSM in the NPP/utility organizational structure; provide brief organizational structure of this division.

2.11 List of NPP participants

Provide the list of MSM participants on the part of the NPP . (Surname, Name, Patronymic name , Position, Phone number, e-mail).

Surname, name, patronymic name and position should be also written in the English language.

Surname, Patronymic name	Name,	Position (full name)	Contact number	phone	e-mail

2.12 Information about the NPP in Internet resources

Specify Internet address where it is possible to find detailed information about the NPP.

Appendix 2**Cost Estimation**

**WANO MSM Severe Accident Management system,
Bushehr NPP (08-11 December, 2018)**

№	Items	WANO MC	Bushehr NPP	Amount
1.	Arrangement of Invitation		+	
2.	Accommodation	1/3	2/3	
3.	Meal	1/3	2/3	
4.	Transport	1/3	2/3	
5.	Rental of Premises	1/3	2/3	
6.	Other Expenses	1/3	2/3	
7.	Translation		+	
8.	TOTAL			

Approved by: _____

Draft MSM SCHEDULE (08 December - 11 December, 2018)

Member Support Mission "Severe Accident Management system"

THURSDAY 06 December	FRIDAY 07 December	SATURDAY 08 December	SUNDAY 09 December	MONDAY 10 December	TUESDAY 11 December	WEDNESDAY 12 December
Experts will fly to Tehran: 1. Aeroflot SU512 (Goncharov, Aydemirov 22:15 - 02:45 (07.12) SVO IKA 2. Turkish Airlines TK874 (Blyednykh, Arsenin, Konjarek) 21:10 00:45+1 (07.12) IST Istanbul Ataturk IKA Tehran Imam Khomeini	Hotel accommodation 07:30 Breakfast WANO-MC experts arrive at the airport Tehran in Bushehr Lunch After 17:00 Meeting of experts and training	07:30 Breakfast 08:00 Departure from hotel 09:00-10:00 Welcome, Introductions, Objectives, Bushehr NPP presentation on current status. 10:00-13:00 WANO Presentations	07:30 Breakfast 08:00 Departure from hotel 09:00-13:00 WANO Presentations 13:00-14:00 Lunch 14:00-17:00 WANO Presentations 17:00 Depart from plant site and move to hotel	07:30 Breakfast 08:00 Departure from hotel 09:00-13:00 WANO Presentations 13:00-14:00 Lunch 14:00-17:00 Discussions, development of proposals. Meeting results reporting. 17:00 Depart from plant site and move to hotel	07:30 Breakfast 08:00 Departure from hotel 09:00-13:00 MSM results reporting to NPP Management 13:00-14:00 Lunch 14:00-16:00 WANO-MC experts arrive at the airport Bushehr in Tehran Hotel accommodation 18:00 –Dinner	WANO-MC experts arrive at the airport Tehran in Moscow. 1. Aeroflot SU513 4:30 - 8:00 IKA SVO 2. Ukraine International PS752 4h 15 05:15 08:00 IKA Tehran Imam Khomeini KBP Kiev Borispol