

## Implementation of the Complex (Consolidated) Safety Upgrade Program of Power Units of Ukrainian Nuclear Power Plants during the II<sup>nd</sup> Quarter, 2017

The Complex (Consolidated) Safety Upgrade Program of Power Units of Ukrainian Nuclear Power Plants (CCSUP) was approved by the Decree of the Cabinet of Ministers of Ukraine No1270 of 07.12.2011. In 2012 the CCSUP was supplemented with additional measures according to conclusions of the National Report of Ukraine on results of specific reevaluation of nuclear facilities situated on NPP sites ("stress-tests"), taking into account the lessons from Japanese NPP "Fukushima-Daichi" accident of March, 2011.

The CCSUP document package (consolidated measures, their lists per power unit type, as well as each CCSUP action card) was published in the source language at the official web-site of SE NNEGC «Energoatom»:

[http://energoatom.kiev.ua/ua/actvts/integrated\\_security\\_program/40915-komplekt\\_dokumentv\\_z\\_kzppb/](http://energoatom.kiev.ua/ua/actvts/integrated_security_program/40915-komplekt_dokumentv_z_kzppb/)

The implementation status of CCSUP initially planned and additional measures as of 30.06.2017 is provided in Tables 1, 2 and Tables 3, 4 accordingly.

Totally, as of 30.06.2017, 692 measures out of 1278 ones were completed and 586 ones are to be implemented, including about 60 measures planned to be completed to the end 2017.

Table 1 - Implementation of CCSUP initially planned measures (as of 30.06.2017)

NPP	Unit	Total Number of Measures	Completed	To Implement
SS ZNPP	ZNPP-1	77	64	13
	ZNPP-2	77	61	16
	ZNPP-3	76	35	41
	ZNPP-4	76	30	46
	ZNPP-5	76	30	46
	ZNPP-6	77	31	46
	Common	3	1	2
	<b>Totally</b>	<b>462</b>	<b>252</b>	<b>210</b>
SS RNPP	RNPP-1	54	39	15
	RNPP-2	53	37	16
	RNPP-3	79	45	34
	RNPP-4	79	58	21
	Common	5	2	3
	<b>Totally</b>	<b>270</b>	<b>181</b>	<b>89</b>
SS KhNPP	KhNPP-1	79	39	40
	KhNPP-2	79	48	31
	Common	4	3	1
	<b>Totally</b>	<b>162</b>	<b>90</b>	<b>72</b>
SS SUNPP	SUNPP-1	53	47	6
	SUNPP-2	53	38	15
	SUNPP-3	77	29	48
	Common	5	0	5
	<b>Totally</b>	<b>188</b>	<b>114</b>	<b>74</b>
<b>TOTAL</b>		<b>1082</b>	<b>637</b>	<b>445</b>

Table 2 - List of completed CCSUP initially planned measures as of 30.06.2017

NPP	Unit	Completed before reporting Quarter	Completed during reporting Quarter
ZNPP	Unit 1	10101, 11302, 11303, 11304, 12101, 12102, 12201, 12202, 12203, 12301, 13101, 13102, 13103, 13202, 13301, 13303, 13305, 13401, 13403, 13501, 13503,	13302, 17201

NPP	Unit	Completed before reporting Quarter	Completed during reporting Quarter
		13504, 13505, 13508, 13509, 14101, 14102, 14103, 14104, 14105, 14106, 14201, 14202, 14203, 14204, 14205, 14206, 14301, 14402, 14403, 14405, 14406, 15201, 15202, 15203, 15205, 15207, 15208, 15211, 15212, 16202, 16203, 17101, 17103, 17104, 19101, 19102, 19103, 19201, 19202, 19203, 19204	
	Unit 2	10101, 11302, 11303, 11304, 12101, 12102, 12201, 12202, 12203, 12301, 13101, 13102, 13103, 13202, 13301, 13303, 13305, 13401, 13403, 13503, 13504, 13505, 13508, 13509, 14101, 14103, 14104, 14105, 14106, 14201, 14202, 14203, 14204, 14205, 14206, 14301, 14402, 14403, 14405, 14406, 15201, 15203, 15204, 15205, 15207, 15211, 15212, 16202, 16203, 17101, 17103, 17104, 19101, 19102, 19103, 19201, 19202, 19203, 19204	13302, 17201
	Unit 3	11303, 11304, 12101, 12102, 12201, 12202, 12203, 13101, 13102, 13103, 13202, 13301, 13303, 13305, 13401, 13403, 13504, 13505, 13508, 14104, 14201, 14202, 14203, 14204, 14206, 14402, 15203, 15211, 19101, 19201, 19202, 19203, 19204	19102, 19103
	Unit 4	11303, 11304, 12101, 12201, 12203, 13101, 13102, 13103, 13202, 13301, 13303, 13305, 13401, 13403, 13504, 13505, 13508, 13509, 14104, 14201, 14203, 14206, 14402, 15203, 15211, 19101, 19201, 19202, 19203, 19204	
	Unit 5	11303, 11304, 12101, 12201, 12203, 13101, 13102, 13103, 13202, 13301, 13303, 13305, 13401, 13403, 13505, 13508, 14104, 14105, 14201, 14203, 14206, 14402, 15203, 15211, 17102, 19101, 19201, 19202, 19203, 19204	
	Unit 6	11303, 11304, 12101, 12201, 12203, 13101, 13102, 13103, 13202, 13301, 13303, 13305, 13401, 13403, 13504, 13505, 13506, 13508, 14104, 14201, 14203, 14205, 14206, 14402, 15203, 15211, 17103, 19101, 19201, 19202, 19203	
	Common	13507	
	<b>Totally</b>	<b>246</b>	<b>6</b>
RNPP	Unit 1	31101, 31102, 32101, 32302, 32401, 33302, 33303, 33501, 33502, 33503, 34103, 34106, 34107, 34201, 34301, 34401, 34402, 34403, 34404, 34406, 34407, 34408, 34409, 35201, 35202, 35203, 35204, 35205, 35206, 37102, 37103, 37105, 39101, 39102, 39104, 39201, 39202, 39203, 39204	
	Unit 2	31101, 31102, 32101, 32401, 33302, 33303, 33501, 33502, 33503, 34103, 34104, 34106, 34107, 34201, 34301, 34402, 34403, 34404, 34406, 34407, 34408, 34409, 35201, 35202, 35203, 35204, 35205, 35206, 37102, 37103, 37105, 39101, 39102, 39104, 39201, 39202, 39203	
	Unit 3	11302, 11303, 11304, 12101, 12102, 12201, 12202, 13101, 13102, 13103, 13202, 13301, 13303, 13304, 13305, 13401, 13403, 13503, 13505, 13506, 13508, 14103, 14104, 14201, 14202, 14203, 14204, 14205, 14206, 14402, 14403, 14405, 14407, 15211, 17101, 17103, 19101, 19102, 19103, 19201, 19202, 19203, 19204	13502, 14102
	Unit 4	11302, 11303, 11304, 12101, 12102, 12201, 12202, 12203, 12301, 12401, 13101, 13102, 13103, 13202, 13301, 13303, 13304, 13305, 13401, 13402, 13403,	

NPP	Unit	Completed before reporting Quarter	Completed during reporting Quarter
		13501, 13502, 13503, 13504, 13505, 13506, 13508, 13509, 14102, 14103, 14104, 14105, 14106, 14201, 14202, 14203, 14204, 14206, 14301, 14402, 14403, 14405, 14406, 14407, 15201, 15203, 15204, 17101, 17102, 17103, 19101, 19102, 19103, 19201, 19202, 19203, 19204	
	Common	12302, 15101	
	<b>Totally</b>	<b>179</b>	<b>2</b>
KhNPP	Unit 1	11302, 11304, 12101, 12102, 12201, 12202, 12301, 13101, 13102, 13103, 13202, 13301, 13303, 13304, 13305, 13401, 13403, 13501, 13504, 13505, 13506, 13508, 14103, 14201, 14202, 14203, 14204, 14206, 14402, 14403, 15203, 15211, 17101, 17103, 19101, 19102, 19201, 19202, 19203	
	Unit 2	11302, 11304, 12101, 12102, 12201, 12202, 12301, 13101, 13102, 13103, 13202, 13301, 13303, 13304, 13305, 13401, 13403, 13501, 13502, 13503, 13504, 13505, 13506, 13508, 13509, 14102, 14103, 14201, 14202, 14203, 14204, 14206, 14402, 14403, 14405, 15201, 15203, 15205, 15211, 17101, 17102, 17103, 19101, 19102, 19103, 19201, 19202, 19203	
	Common	12302, 13507, 15101	
	<b>Totally</b>	<b>90</b>	<b>0</b>
SUNPP	Unit 1	20101, 21302, 22101, 22102, 22201, 22202, 22203, 22301, 23103, 23301, 23302, 23401, 23402, 23403, 23501, 23502, 23503, 23504, 23509, 24102, 24103, 24104, 24202, 24205, 24401, 24403, 24404, 25101, 25201, 25202, 25203, 25204, 25207, 25208, 26101, 26201, 26202, 26203, 27101, 27201, 27203, 28101, 29101, 29102, 29103, 29203, 29204	
	Unit 2	20101, 21302, 22101, 22102, 22201, 22202, 22203, 22301, 23103, 23301, 23302, 23401, 23501, 23503, 23504, 24102, 24103, 24104, 24202, 24205, 24403, 25101, 26101, 26202, 26203, 27101, 27201, 27203, 28101, 29101, 29102, 29103, 29203, 29204, 25207	25201, 25204, 25208
	Unit 3	11302, 11304, 12101, 12201, 12202, 12203, 13101, 13103, 13202, 13301, 13303, 13305, 13401, 13503, 13504, 13508, 14201, 14202, 14203, 14206, 14405, 16202, 17103, 19101, 19102, 19201, 19202, 19203, 19204	
	Common		
	<b>Totally</b>	<b>111</b>	<b>3</b>

Table 3 - Implementation of CCSUP additional measures (as of 30.06.2017)

NPP	Unit	Total Number of Measures	Completed	To Implement
SS ZNPP	ZNPP-1	11	6	5
	ZNPP-2	11	6	5
	ZNPP-3	11	2	9
	ZNPP-4	11	2	9
	ZNPP-5	11	2	9
	ZNPP-6	11	2	9
	Common	3	0	3
	<b>Totally</b>	<b>69</b>	<b>20</b>	<b>49</b>

NPP	Unit	Total Number of Measures	Completed	To Implement
SS RNPP	RNPP-1	13	4	9
	RNPP-2	13	4	9
	RNPP-3	11	3	8
	RNPP-4	11	4	7
	Common	3	0	3
	<b>Totally</b>	<b>51</b>	<b>15</b>	<b>36</b>
SS KhNPP	KhNPP-1	11	1	10
	KhNPP-2	11	2	9
	Common	2	0	2
	<b>Totally</b>	<b>24</b>	<b>3</b>	<b>21</b>
SS SUNPP	SUNPP-1	15	8	7
	SUNPP-2	16	7	9
	SUNPP-3	11	0	11
	Common	2	1	1
	<b>Totally</b>	<b>44</b>	<b>16</b>	<b>28</b>
SE NNEGC «Ergoatom»	<b>Totally</b>	<b>8</b>	<b>1</b>	<b>7</b>
<b>TOTAL</b>		<b>196</b>	<b>55</b>	<b>141</b>

Table 4 - List of completed CCSUP additional measures as of 30.06.2017

NPP	Unit	Completed before reporting Quarter	Completed during reporting Quarter
ZNPP	Unit 1	11305, 13307, 13511, 17108, 17109, 17110	
	Unit 2	11305, 13307, 13511, 17108, 17109, 17110	
	Unit 3	17108, 17110	
	Unit 4	17108, 17110	
	Unit 5	17108, 17110	
	Unit 6	17108, 17110	
	Common		
	<b>Totally</b>	<b>20</b>	<b>0</b>
RNPP	Unit 1	37107, 37112, 37113	33307
	Unit 2	37107, 37112, 37113	33307
	Unit 3	17109	13307, 13511
	Unit 4	17107, 17108, 17109, 17110	
	Common		
	<b>Totally</b>	<b>11</b>	<b>4</b>
KhNPP	Unit 1	17109	
	Unit 2	17109, 17110	
	Common		
	<b>Totally</b>	<b>3</b>	<b>0</b>
SUNPP	Unit 1	21305, 23307, 23511, 27106, 27108, 27109, 27110, 27111	
	Unit 2	21305, 23307, 23511, 27108, 27109, 27110	27111
	Unit 3		
	Common	18102	
	<b>Totally</b>	<b>15</b>	<b>1</b>
SE NNEGC «Ergoatom»	<b>Totally</b>	33308	<b>0</b>