Press Release

April 1, 2016

International Research Institute for Nuclear Decommissioning (IRID)

Adapted Subsidy Programs “Project of Decommissioning and Contaminated Water Management” (7 projects)

International Research Institute for Nuclear Decommissioning (IRID) announced that we have been adapted as a subsidized entity for the Subsidy Program (7 projects, period of solicitation: March 10 to March 24, 2016), “Project of Decommissioning and Contaminated Water Management” that will be conducted in FY 2016, as a result of the review and evaluation of the “Review Committee for the Project of Decommissioning and Contaminated Water Management” managed by Mitsubishi Research Institute (MRI).

Notice

1. Upgrading level of grasping state inside reactor
   Period of project: FY 2016 – FY2017
   Subsidy rate and amount: Maxim amount: JPY 2 billion (Project cost: JPY 2 billion)
   Project summary:
   (1) Integrated analyses and evaluations of the state inside the reactor
   (2) Estimations and evaluations of fuel debris and fission products respective behaviors and characteristics for integrated analyses and evaluations, etc.

2. Development of investigation technology of inside of the Primary Containment Vessel (PCV)
   Period of project: FY 2016 – FY2017
   Subsidy rate and amount: Maxim amount: JPY 4 billion (Project cost: JPY 4 billion)
   Project summary:
   (1) Formulation and updating of investigation plan and development plan
   (2) Development of equipment and systems to access and investigate specific areas
   (3) On-site demonstrations, etc.

3. Development of investigation technology of inside of the Reactor Pressure Vessel (RPV)
   Period of project: FY 2016 – FY2017
   Subsidy rate: Not exceeding 1/2 of the subsidized cost
   Maximum amount: JPY 1 billion (Project cost: JPY 2 billion)
   Project summary:

(1) Establishment and upgrading of the investigation plan and development plan
(2) Development of equipment to enable access to the reactor core from the top
(3) Development and selection of the reactor core investigation method
(4) Design and construction plan of the integrated investigation system, etc.

4. Development of corrosion control technology for the RPV and the PCV
Period of project: in FY 2016
Subsidy rate: Not exceeding 1/2 of the subsidized cost
Maximum amount: JPY 0.5 billion (Project cost: JPY 1 billion)
Project summary:
(1) Evaluation of the effectiveness and impacts of the corrosion control measure
(2) Conceptual design of the corrosion control system, etc.

5. Development of criticality control technologies of fuel debris
Period of project: in FY 2016 – FY2017
Subsidy rate: Not exceeding 1/2 of the subsidized cost
Maximum amount: JPY0. 5 billion (Project cost: JPY 1 billion)
Project summary:
(1) Establishment of criticality evaluation method
(2) Development of criticality control technologies, etc.

6. Development of repair technology for leakage sections in the PCV
Period of project: in FY 2016 – FY2017
Subsidy rate: Not exceeding 1/2 of the subsidized cost
Maximum amount: JPY 3 billion (Project cost: JPY 6 billion)
Project summary:
(1) Consideration and planning of process leading to water replenishment in the PCV]
(2) Development of the PCV lower part repair technology
(3) Development of the PCV upper part repair technology
(4) Consideration of environmental improvement concept for application of repair construction method in actual equipment, etc.

7. Full-scale test of repair technology for leakage sections in the PCV
Period of project: in FY 2016 – FY2017
Subsidy rate: Maximum amount: JPY 4 billion (Project cost: JPY 4 billion)
Project summary:
(1) Full-scale tests of the PCV lower part repair technology
(2) Confirmation of integrity of reinforcement materials and water stoppage materials after testing

(3) Maintenance of VR data for preliminary simulation test, etc.

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Reference

Research & Development (R&D) in a government subsidy and commission expenses (IRID)

Project of Decommissioning and Contaminated Water Management in the FY 2015 (including FY2014) supplementary budget

R&D for preparation of fuel debris retrieval

	Category	Project name	Reference
1.	Subsidized Project	Upgrading level of grasping state inside reactor	Will be completed in March, 2018
2.	Subsidized Project	Development of investigation technology of inside of the Primary Containment Vessel (PCV)	Will be completed in March, 2018
3.	Subsidized Project	Development of investigation technology of inside of the Reactor Pressure Vessel (RPV)	Will be completed in March, 2018
4.	Subsidized Project	Development of corrosion inhibition technology for the RPV and the PCV	Will be completed in March, 2018
5.	Subsidized Project	Development of criticality control technologies of fuel debris	Will be completed in March, 2018
6.	Subsidized Project	Development of repair technology for leakage sections in the PCV	Will be completed in March, 2018
7.	Subsidized Project	Full-scale test of repair technology for leakage sections in the PCV	Will be completed in March, 2018

Project of Decommissioning and Contaminated Water Management in the FY 2014 supplementary budget

（1）R&D for spent fuel removal in the spent fuel pool

	Category	Project Name	Reference
	Subsidized Project	Evaluation of long-term structural integrity of the fuel assemblies removed from the spent fuel pool	Will be completed in March, 2017

（2）R&D for preparation of fuel debris retrieval

	Category	Project name	Reference
1.	Subsidized Project	Enhancement in identifying conditions inside the reactor through application of accident analysis and actual data	Completed in March, 2016
2.	Subsidized Project	Development of technology for collection, transfer and storage of fuel debris	Will be completed in March, 2017
3.	Subsidized Project	Development of technology for criticality control in fuel debris retrieval	Completed in March, 2016
4.	Subsidized Project	Development of technology for fuel debris characterization	Will be completed in March, 2017
5.	Subsidized Project	Study of basic and generic technology for retrieval of fuel debris and reactor internals	Will be completed in March, 2017
6.	Subsidized Project	Study of method for retrieval of fuel debris and reactor internals / system enhancement	Will be completed in March, 2017
7.	Subsidized Project	Development of technology for investigation inside the RPV	Completed in March, 2016

（3）R&D for treatment and disposal of radioactive waste

	Category	Project name	Reference
	Subsidized Project	R&D for treatment and disposal of solid radioactive waste	Will be completed in March, 2017

Project of Decommissioning and Contaminated Water Management in the FY 2013 supplementary budget

(1) R&D for fuel removal from spent fuel pool

	Category	Project name	Reference
1.	Subsidized Project	Evaluation of long-term structural integrity of the fuel assemblies removed from the spent fuel pool	Completed in March, 2015
2.	Subsidized Project	Study of methods to process damaged fuel removed from the spent fuel pool	Completed in March, 2015

(2) R&D for preparation of fuel debris retrieval

	Category	Project name	Reference
1.	Subsidized Project	Development of repair and water leakage stoppage technology for leakage points inside the PCV	Completed in March, 2016
2.	Subsidized Project	Full-scale test for repair and water leakage stoppage technology for leakage points inside the PCV	Completed in March, 2016
3.	Subsidized Project	Development of technology for investigation inside the RPV	Completed in March, 2015
4.	Subsidized Project	Development of technology for retrieval of fuel debris and reactor internals	Completed in March, 2015
5.	Subsidized Project	Development of technology for collection, transfer and storage of fuel debris	Completed in March, 2015
6.	Subsidized Project	Development of technology for integrity evaluation of the RPV / PCV	Completed in March, 2015
7.	Subsidized Project	Development of technology for detection of fuel debris in the reactor.	Completed in December, 2015
8.	Subsidized Project	Identifying conditions inside the reactor through application of severe-accident analysis code	Completed in March, 2015
9.	Subsidized Project	Development of technology for fuel debris characterization and treatment	Completed in March, 2015
10.	Subsidized Project	Development of technology for criticality control in fuel debris retrieval	Completed in March, 2015
11.	Subsidized Project	Development of technology for remotely operated decontamination inside reactor buildings	Completed in March, 2016
12.	Subsidized Project	Development of technology for analysis of debris properties	Completed in March, 2015
13.	Subsidized Project	Development of technology for non-destructive detection of radioactive materials accumulated in the suppression chamber	Completed in March 2015
14.	Subsidized Project	Development of technology for investigation inside the PCV	Completed in March 2016

(3) R&D for treatment and disposal of solid radioactive waste

	Category	Project name	Reference
	Subsidized Project	Development of technology for treatment and disposal of accident-generated waste	Completed in March 2015

Program for nuclear power reactor, decommission and safety generic technology in FY 2013
Subsidies for nuclear power reactor, decommission and development of safety generic technology in FY2013

（1）R&D for fuel removal from spent fuel pool

	Category	Project name	Reference
1.	Commissioned Project	Evaluation of long-term structural integrity of the fuel assemblies removed from the spent fuel pool	Completed in March, 2014
2.	Commissioned Project	Study of methods to process damaged fuel removed from the spent fuel pool	Completed in March, 2014

（2）R&D for preparation of fuel debris retrieval

	Category	Project name	Reference
1.	Subsidized Project	Development of technology for remotely operated decontamination inside reactor buildings	Completed in July, 2014
2.	Subsidized Project	Development of repair and water leakage stoppage technology for leakage points inside the PCV	Completed in September,2014
3.	Subsidized Project	Development of technology for investigation inside the PCV	Completed in July,2014
4.	Subsidized Project	Development of technology for investigation inside the RPV	Completed in March,2014
5.	Subsidized Project	Development of technology for collection, transfer and storage of fuel debris	Completed in March, 2014
6.	Subsidized Project	Development of technology for integrity evaluation of the RPV/PCV	Completed in May,2014
7.	Subsidized Project	Development of technology for criticality control in fuel debris retrieval	Completed in June,2014
8.	Commissioned Project	dentifying conditions inside the reactor through application of severe accident analysis code	Completed in March,2014
9.	Commissioned Project	Development of technology for fuel debris characterization and treatment	Completed in March, 2014

（3）R&D for treatment and disposal of radioactive waste

	Category	Project name	Reference
	Commissioned Project	Study to examine technologies for disposal of accident waste and establishment of disposal concept	Completed in March,2014

（4）Others

	Category	Project name	Reference
1.	Commissioned Project	Technical study for contaminated water management	Completed in December, 2013
2.	Commissioned Project	Technical study of Innovative approach for fuel debris retrieval	Completed in March, 2014