

Comparison Table “Guidelines for the Subsidy Program “Project of Decommissioning and Contaminated Water Management (Development of Technologies for In-depth Investigation of PCV Inside)”

This table shows the changes from Temporary Translation to Unofficial Translation of the Guidelines for the Subsidy Program “Project of Decommissioning and Contaminated Water Management (Development of Technologies for In-depth Investigation of PCV Inside). Underlined parts are changed.

Unofficial Translation	Temporary Translation
(Unofficial Translation)	(temporary translation)
<p>Guidelines for applying to the “Project of Decommissioning and Contaminated Water Management (<u>Development of Technologies for In-depth Investigation of PCV Inside</u>)”</p>	<p>Guidelines for applying to the “Project of Decommissioning and Contaminated Water Management (<u>Development of In-depth Investigation Technology of Inside of PCV)</u>”</p>
<p style="text-align: right;">Date: March 2, 2017</p> <p style="text-align: center;">Management Office for the Project of Decommissioning and Contaminated Water Management</p>	<p style="text-align: right;">Date: March 2, 2017</p> <p style="text-align: center;">Management Office for the Project of Decommissioning and Contaminated Water Management</p>
<p>The Management Office for the Project of Decommissioning and Contaminated Water Management (hereinafter called “PMO”) solicits entities to implement subsidies for the "<u>Subsidized Project of Decommissioning and Contaminated Water Management (Development of Technologies for In-depth Investigation of PCV Inside)</u>". Details of the project are stipulated in these Guidelines; furthermore, the procedures for implementation of the project are stipulated in the “Grant Policy for Subsidy for the Project of Decommissioning and Contaminated Water Management”.</p>	<p>The Management Office for the Project of Decommissioning and Contaminated Water Management (hereinafter called “PMO”) solicits entities to implement subsidies for the "<u>Subsidy Project of Decommissioning and Contaminated Water Management (Development of In-depth Investigation Technology of Inside of PCV)</u>". Details of the project are stipulated in these Guidelines; furthermore, the procedures for implementation of the project are stipulated in the “Grant Policy for Subsidy for the Project of Decommissioning and Contaminated Water Management”.</p>

1. Purpose of Project

“No Change”

2. Contents of Project

In order to determine the method for the removal of fuel debris, it is required to expand the scale of access and investigation devices and to advance the level of investigative technologies which are applied to the visual inspection and instrumentation so that we can acquire a more accurate understanding of the distribution and forms of the fuel debris inside and outside the pedestal in the primary containment vessel (hereafter called “PCV”) as well as the PCV internal structures. Furthermore, the access and investigation devices that are developed must be physically demonstrated at the actual plant. Therefore, technological development will be conducted as outlined in (1) and (2) below.

(1) Establishment of the plans for investigation and development

Previous investigations selected PCV penetration points with a diameter of 115mm through which camera-equipped devices were dispatched inside the PCV interior for investigation.

In order to obtain more precise information (dimension, video,

1. Purpose of Project

2. Project details

In order to finalize the method for the removal of fuel debris, we need to expand the scale of access and investigation devices and to advance the level of investigative technologies which are applied to the visual inspection and instrumentation so that we can acquire a more accurate understanding of the distribution and forms of the fuel debris inside and outside the pedestal in the primary containment vessel (hereafter called “PCV”) as well as the PCV internals. Furthermore, the access and investigation devices that are developed must be physically demonstrated at the actual plant. Therefore, we will carry out the technological development as outlined in (1) and (2) below.

(1) Establishment of the plans for investigation and development

Previous investigations selected PCV penetration points with a diameter of 115mm through which camera-equipped devices were dispatched inside the PCV interior for investigation.

From now on, in order to obtain more precise information

properties, environment, etc.) on dispersion and condition of the fuel debris inside and outside of PCV pedestals, and conditions of PCV internal structures, etc., it is required to conduct more precise survey by putting the access and investigation devices with the functions to better than ever, measure them better than ever, into the inside of the PCV. Then, it is also required to have the equipment bigger than certain size, and secure and expand the access route into the PCV. Furthermore, it is required to advance the visual and measurement technology which is applied to the access and investigation devices.

Considering above mentioned points, produce the survey plan and development plan to grasp the inside of the PCV more in details. Such plans are to be continuously reviewed and if necessary, updated taking the latest information, outcomes of the PCV inside survey, etc. into consideration.

(2) Development of access and investigation devices and component technologies

In order to facilitate the determination of the removal method as well as the actual removal of fuel debris, develop the technologies necessary to carry out investigations of the structures, such as outer surface of RPV bottoms and the attached CRD housing, as well as the pedestal so as to increase the more precise understanding of three-dimensional information relating to the fuel debris dispersion

(dimension, video, properties, environment, etc.) on dispersion and condition of the fuel debirs inside and outside of PCV pedestals, and conditions of PCV inner structures, etc., it is required to conduct more precise survey by put the access and investigation devices with the functions to better than ever, measure them into the inside of the PCV. Then, it is also required to have the equipment bigger than certain size, and secure and expand the access route into the PCV. Furthermore, it is required to advance the visual and measurement technology which is applied to the access and investigation devices.

Considering above mentioned points, produce the survey plan and development plan to grasp the inside of the PCV more in details. Such plans are to be continuously reviewed and if necessary, updated taking the latest information, outcomes of the PCV inside survey, etc. into consideration.

(2) Development of access and investigation devices and component technologies

In order to facilitate the finalization of the removal method as well as the actual removal of fuel debris, develop the technologies necessary to carry out investigations of the structures, such as RPV floors and the attached CRD housing, as well as the pedestal so as to increase the more precise understanding of three-dimensional information relating to the fuel debris dispersion better than ever.

better than ever.

The development activities include essential tests to confirm the survey feasibility and in-factory verification tests in preparation for on-site demonstrations.

* Please keep in mind that remote controllable technology should be developed in order to access the area with high radiation and damaged by the accidents where the access is difficult. Furthermore, the dispersion of the radioactive materials from the inside of the PCV must be avoided.

* On-site investigation (on-site demonstration) and constructing work of the access route to the inside of the PCV are out of this project scope.

[1] Development of access and investigation devices

Develop access and investigation devices for actual application, including the necessary systems, by taking the following into consideration:

- Carry out detailed design of a device that enters the PCV through the penetration point X-6 (a pipe penetrating from the first floor of the reactor building into the inside of the PCV. The rail for CRD exchange is located ahead of X-6 and connecting the platform under the RPV bottom) in order to gain access to the fuel debris on the floor inside and outside the pedestal, the RPV bottom and its attached structures and the pedestal, etc. for detail

The development activities include essential tests to confirm the survey feasibility and in-factory verification tests in preparation for on-site demonstrations.

* Please keep in mind that remote controllable technology should be developed in order to access the area with high radiation and damaged by the accidents where the access is difficult. Furthermore, the dispersion of the radioactive materials from the inside of the PCV must be avoided.

* On-site investigation (on-site demonstration) and structuring work of the access route to the inside of the PCV are out of this project scope.

[1] Development of access and investigation devices

Develop access and investigation devices for actual application, including the necessary systems, by taking the following into consideration:

- Carry out detailed design of a device that enters the PCV through the penetration point X-6 (a pipe penetrating from the first floor of the reactor building into the inside of the PCV. The rail for CRD exchange is located ahead of X-6 and connecting the platform under the RPV floor) in order to gain access to the fuel debris on the floor inside and outside the pedestal, the RPV floor and its attached structures and the pedestal, etc. for detail investigation;

investigation;

- If a feasibility evaluation based on the site conditions indicates the need for an opening other than the penetration point X-6 for the insertion of a large device, carry out detailed design of a device for the entry into the PCV through the selected opening for the access to those above mentioned for detail investigation;
- * Investigate some devices for different application environments (air/underwater, etc.) and access methods in order to narrow down the design; and then, assemble the device;
- * Development will be aimed to install the essential technology to be developed in *[2] for investigation.

[2] Verification of the applicability of the essential technologies

Carry out the verification of the applicability of the following essential technologies which may be included in the access and investigation device to be developed as set out in [1] above:

- Advanced visual technology for the understanding of three-dimensional information on size of fuel debris as well as geometrics of the structures, such as the RPV bottom and its attached CRD housing, and conditions of the pedestal. (Consider the handling of fog, rain and radioactive dosages inside the PCV and use in underwater conditions);
- Measurement technology for identification of the fuel debris

- If a feasibility evaluation based on the site conditions indicates the need for an opening other than the penetration point X-6 for the insertion of a large device, carry out detailed design of a device for the entry into the PCV through the selected opening for the access to those above mentioned for detail investigation;
- * Study a number of devices for different application environments (air/underwater, etc.) and access methods in order to narrow down the design; and then, assemble the device;
- Development will be aimed to install the essential technology to be developed in *[2] for investigation.

[2] Verification of the applicability of the component technologies

Carry out the verification of the applicability of the following component technologies which may be included in the access and investigation device to be developed as set out in [1] above:

- Advanced visual technology for the understanding of three-dimensional information on size of fuel debris as well as geometrics of the structures, such as the RPV floor and its attached CRD housing, and conditions of the pedestal. (Consider the handling of fog, rain and radioactive dosages inside the PCV and use in underwater conditions);
- Measurement technology for identification of the fuel debris

<p>among general debris. (Consider dosage-based identification under high-dose conditions inside the PCV);</p> <ul style="list-style-type: none"> • Technology for the identification of erosion in the pedestal and damage to the PCV shell; • Technology for the identification of forms of the fuel debris (e.g. granular, block, etc.) <p>3. Operation of research and development “No Change”</p> <p>4. Project Term</p> <ul style="list-style-type: none"> ● From the day of grant decision to March 31, 2019 <p><u>In “Outline of Subsidized Project (Form 2)”, please describe both “Implementation Plan” and “Plan of the income and expenditure” for each period; The period from the day of grant decision to March 31, 2018 and the period from April 1, 2018 to March 31, 2019since the contents of the grant decision would be coordinated considering the National Budget, etc..</u></p> <p>5. Implementing Scheme “No Change”</p> <p>6. Application Requirements</p>	<p>among general debris. (Consider dosage-based identification under high-dose conditions inside the PCV);</p> <ul style="list-style-type: none"> • Technology for the identification of erosion in the pedestal and damage to the PCV shell; • Technology for the identification of forms of the fuel debris (e.g. granular, block, etc.) <p>3. Operation of research and development</p> <p>4. Project Term</p> <ul style="list-style-type: none"> ● From the day of grant decision to March 31, 2019 <p><u>In Outline of Subsidy Project (Form 2), Please list the implementation plan and plan of income and expenditure. (The period from the day of grant decision to March 31, 2018, the period from April 1, 2018 to March 31, 2019).</u></p> <p>5. Implementing Scheme</p> <p>6. Application Requirements</p>
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The private companies, etc. satisfying all of requirements (1) to (9) shown below are qualified to apply for the subsidies.

(1)~(6) "No Change"

(7) The applicant must have a compliance system under a self-regulated structure which meets the "Standards for Exporters, etc. to Meet" provided for in Article 55-10 (1) of the Foreign Exchange and Foreign Trade Act. We will confirm this system using (Form 3) "Response to Security Export Controls" when selecting applicants, so please use this form to fill in the required items and submit the required documents.

The private companies, etc. satisfying all of requirements (1) to (8) shown below are qualified to apply for the subsidies.

(1)~(6)

(7) The "standards for exporters, etc. to meet" provided for in Article 55-10 (1) of the Foreign Exchange and Foreign Trade Act provide an establishment of internal compliance program(ICP) under a self control system.

[Reference] Standards for Exporters, etc. to Meet

Regulations to be observed by parties engaged in export or provision of technology in the course of trade (exporters).

Exporters that do not handle security-sensitive "specified important goods, etc." have a duty to 1) nominate a person responsible for checking goods, etc., and 2) provide guidance to managers and export workers on compliance. Exporters that do handle security-sensitive "specified important goods, etc." have a duty to 1) identify a representative as the responsible person, 2) set out an export control system, 3) set out a procedure for checking regulated/non-regulated goods, 4) set out a procedure for confirming the usage and consumer, and confirm these in accordance with that procedure, and 5) confirm that the goods to be shipped coincide with the confirmed non-regulated goods at the time of shipping.

(8)~(9) "No Change"

7. Requirement Conditions for Grant Decision

"No Change"

[Reference] Exporter Compliance Standards

Regulations to be observed by parties commercially engaged in export or technology transfer (exporters). Exporters which do not handle security-sensitive "special important goods, etc." have a duty to 1) nominate a party responsible for checking freight, etc., and 2) comply with the law. Exporters which do handle security-sensitive "special important goods, etc." have a duty to 1) identify an agent as the responsible party, 2) set out an export control system, 3) set out a procedure for non-regulated freight, 4) set out a procedure for confirming the usage and consumer, and confirming these in accordance with that procedure, and 5) confirming that non-regulated freight remains so at the time of shipping.

(8)~(9)

7. Requirement Conditions for Grant Decision

8. Application Procedure

(1) “No Change”

(2) Information Session

Friday, March 10, 2017 9:00 - 9:30 AM

Venue: Main Conference Room C at Mitsubishi Research Institute, Inc.

Map:http://www.mri.co.jp/english/profile/locations/map_headoffice.html

If you would like to attend the session, please inform the contact point written in “13. Contact” by 12:00 AM on Thursday, March 9 via email. The session will be held in Japanese. If you need a translator, please make arrangements on your own (You are responsible for the expense) . If you need an information session in English, please consult with PMO by 12:00 AM on Thursday, March 9 via email.

(3) Application form and other documents to be submitted

[1] Please submit the following documents as one file. Please title your file “Application for the subsidy program ‘Project of Decommissioning and Contaminated Water Management (Development of Technologies for In-depth Investigation of PCV Inside)’.

• Application form (Form 1)

8. Application Procedure

(1)

(2) Information Session

Friday, March 10, 2017 9:00 - 9:30 AM

Venue: Main Conference Room C at Mitsubishi Research Institute, Inc.

Map:http://www.mri.co.jp/english/profile/locations/map_headoffice.html

If you would like to attend the session, please inform the contact point written in “13. Contact” by 12:00 AM on Thursday, March 9 via email. The session will be held in Japanese. If you need a translator, please make arrangements on your own (You are responsible for the expense) . If you need an information session in English, please consult with PMO by 10:00 AM on Friday, January 27 via email.

(3) Application form and other documents to be submitted

[1] Please submit the following documents as one file. Please title your file “Application for the subsidy program ‘Project of Decommissioning and Contaminated Water Management (Development of In-depth Investigation Technology of Inside of PCV)’.

• Application form (Form 1)

<p>• Outline of <u>Subsidized Project</u> (Form 2)</p> <p>“No Change”</p> <p>[2]~[5] “No Change”</p> <p>(4) “No Change”</p> <p>9.~13. “No Change”</p> <p>(Form 1)</p> <p>Management Office for the Project of Decommissioning and Contaminated Water Management</p> <p>Application for the subsidies for the “<u>Development of Technologies for In-depth Investigation of PCV Inside</u>”</p> <p>(Exhibit)</p> <p>1. Name of the <u>Subsidized Project</u></p> <p>2. Objective and contents of the <u>Subsidized Project</u></p> <p><i>*Describe your own understanding of the background of the project, the purpose of the project and its contents briefly.</i></p> <p>3. Scheduled commencement and completion dates of the <u>Subsidized Project</u></p>	<p>• Outline of <u>Subsidy Project</u> (Form 2)</p> <p>[2]~[5]</p> <p>(4)</p> <p>9.~13.</p> <p>(Form 1)</p> <p>Management Office for the Project of Decommissioning and Contaminated Water Management</p> <p>Application for the subsidies for the “<u>Development of In-depth Investigation Technology of Inside of PCV</u>”</p> <p>(Exhibit)</p> <p>1. Name of the <u>subsidy project</u></p> <p>2. Objective and contents of the <u>subsidy project</u></p> <p><i>*Describe your own understanding of the background of the project, the purpose of the project and its contents briefly.</i></p> <p>3. Scheduled commencement and completion dates of the <u>subsidy project</u></p>
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<p>(Scheduled commencement date):</p> <p>(Scheduled completion date):</p> <p>4. ~6. “No Change”</p> <p>7. Allocation amount of the costs for the <u>Subsidized Project</u>, costs eligible for the subsidy and subsidy amount to be applied for</p> <p style="padding-left: 40px;">The contents are the same as (2) Expenditures, I. Summary table of “2. <u>Plan of the income and expenditure</u>” of the Form 2, “Brief explanation of subsidized project”.</p> <p>8. Bases for Calculation for the above amount</p> <p style="padding-left: 40px;">The contents are the same as (2) Expenditures, II. Distribution of Costs of “2. <u>Plan of the income and expenditure</u>” of the Form 2, “Brief explanation of subsidized project”.</p> <p>9. “No Change”</p> <p>Note 1:~Note 3: “No Change”</p> <p>Remark: “No Change”</p> <p>(Form 2)</p>	<p>(Scheduled commencement date):</p> <p>(Scheduled completion date):</p> <p>4. ~6.</p> <p>7. Allocation amount of the costs for the <u>subsidy project</u>, costs eligible for the subsidy and subsidy amount to be applied for</p> <p style="padding-left: 40px;">The contents are the same as (2) Expenditures, I. Summary table of “2. <u>The income and expenditure budget of the Subsidized Project</u>” of the Form 2, “Brief explanation of subsidized project”.</p> <p>8. Bases for Calculation for the above amount</p> <p style="padding-left: 40px;">The contents are the same as (2) Expenditures, II. Distribution of Costs of “2. <u>The income and expenditure budget of the Subsidized Project</u>” of the Form 2, “Brief explanation of subsidized project”.</p> <p>9.</p> <p>Note 1:~Note 3:</p> <p>Remark:</p> <p>(Form 2)</p>
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Outline of Subsidized Project

(Form 3)

Certificate of Conformance to Qualification Requirements for the
Project of Development of Technologies for In-depth Investigation of
PCV Inside

(Form 4)

Input/Output information on Project of Development of Technologies
for In-depth Investigation of PCV Inside

(Form 5)

Response to Security Export Controls on Project of Development of
Technologies for In-depth Investigation of PCV Inside

Outline of Subsidy Project

(Form 3)

Certificate of Conformance to Qualification Requirements for the
Project of Development of In-depth Investigation Technology of
Inside of PCV

(Form 4)

Input/Output information on Project of Development of In-depth
Investigation Technology of Inside of PCV

(Form 5)

Response to Security Export Controls on Project of Development of
In-depth Investigation Technology of Inside of PCV

Response to Security Export Controls		Response to Security Export Controls	
Circle one of the following three options: handled, not handled or not required.		Circle one of the following three options: handled, not handled or not required.	
Handled	Submit relevant documents (export control regulations for security trade)	Handled	Submit relevant documents (export control regulations for security trade)
Not handled	<u>State the date of submission: Year Month:</u>	<u>Date of completion of handling:</u>	
	State future plans	Not handled	State future plans
Not required	State reasons	Not required	State reasons
(Reference Document 1)~(Reference document 3) "No Change"		(Reference Document 1)~(Reference document 3)	