



ROSATOM



Rosatom Nuclear Power State Corporation

ROSATOM ENGINEERING AND CONSTRUCTION DIVISION

Application of the E-catalogue in the information space of ASE-NIAEP-AEP

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ASE Group

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EOHKOM
ЕДИННЫЙ ОТРАСЛЕВОЙ КАТАЛОГ

A simple decision for designing complex engineering facilities



Regarding E-catalogue project



E-catalogue current status



Requirements for suppliers



Application of E-catalogue data

Data Base Involving the Following:

NPP product classifier

- Hierarchical principle of classification
- Depth of classification with inheritance of properties
- Unique character of terminal positions (templates)

Directory of specimen products

- Structural description of specimen products
- Application of various types of data fields
- Attachment of 3D model applied in designing

Documentation library

- Structural storage of accompanying documentation
- Rules for giving names and designation of the electronic copy
- Storage of non-editable formats of electronic copies

Register of industry suppliers

- Registration of suppliers, provision of the unique login and password
- Self-entering of the data under conditions of the Supply Contract
- Self-entering of the data according to the design demand

Main targets of the project

- Simplification of design technologies and procurement activity.
- Creation of the centralized database for equipment and materials.

Main laid down principles:

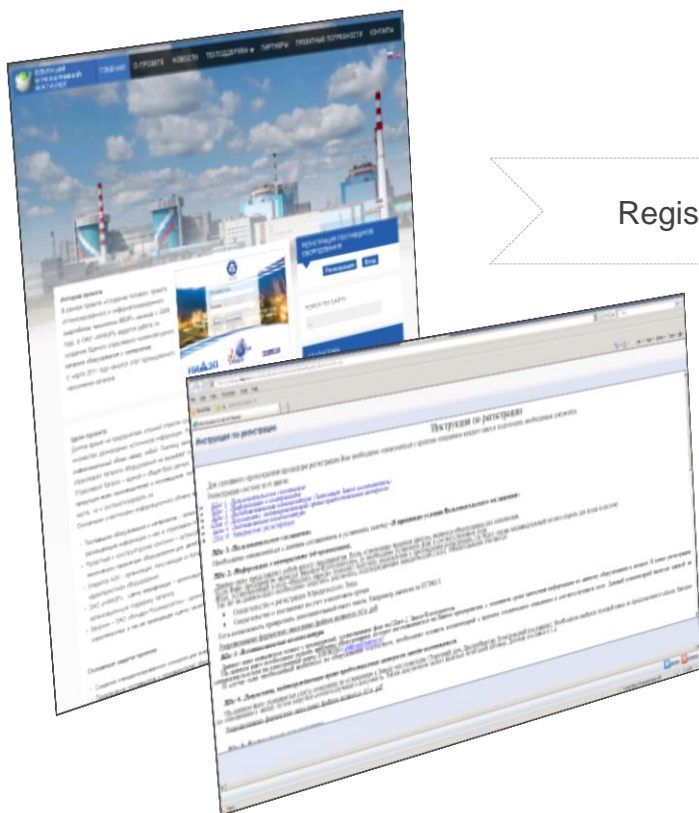
- Covering of the whole assortment and nomenclature list of products purchased for an NPP.
- Common unified approach for formation of templates for description of any kinds of products.
- Maximally complete, standardized and detailed description of each specimen product, applied at any stages of the NPP life cycle.

Main tasks of the project:

- Creation of a unified database for accumulation of structural and formalized information regarding produced and applied specimen products for an NPP in one place.
- Creation of unified templates and rules for technical description of various nomenclature groups and kinds of products for transition of engineering companies of the industry and product producers to a unified “language” of communication.
- Assurance of interactivity of once entered data regarding products for their multiple repeated application by various Users in there IS.
- Assurance of convertibility, into various formats, of all entered data for arrangement of adjustable technical exchange (integration) with IS of other parties.

E-catalogue as an electronic data base has a portal solution at www.eoncom.niaep.ru
The open part is the information regarding the project, guiding documentation for users, industry news
The closed part is the data base, user tools for entering, editing and communication

The open part



Registration

In-filling

The closed part





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Examples of records in E-catalogue

УТВЕРЖДАЮ

Генеральный директор
Госкорпорации «Росатом»



Г.В. Кириенко
«__» _____ 2014

План мероприятий по снижению сроков и стоимости сооружения АЭС


Согласовано:
Госкорпорация «Росатом»
Первый заместитель
генерального директора
по операционному управлению

Локшин А.М.



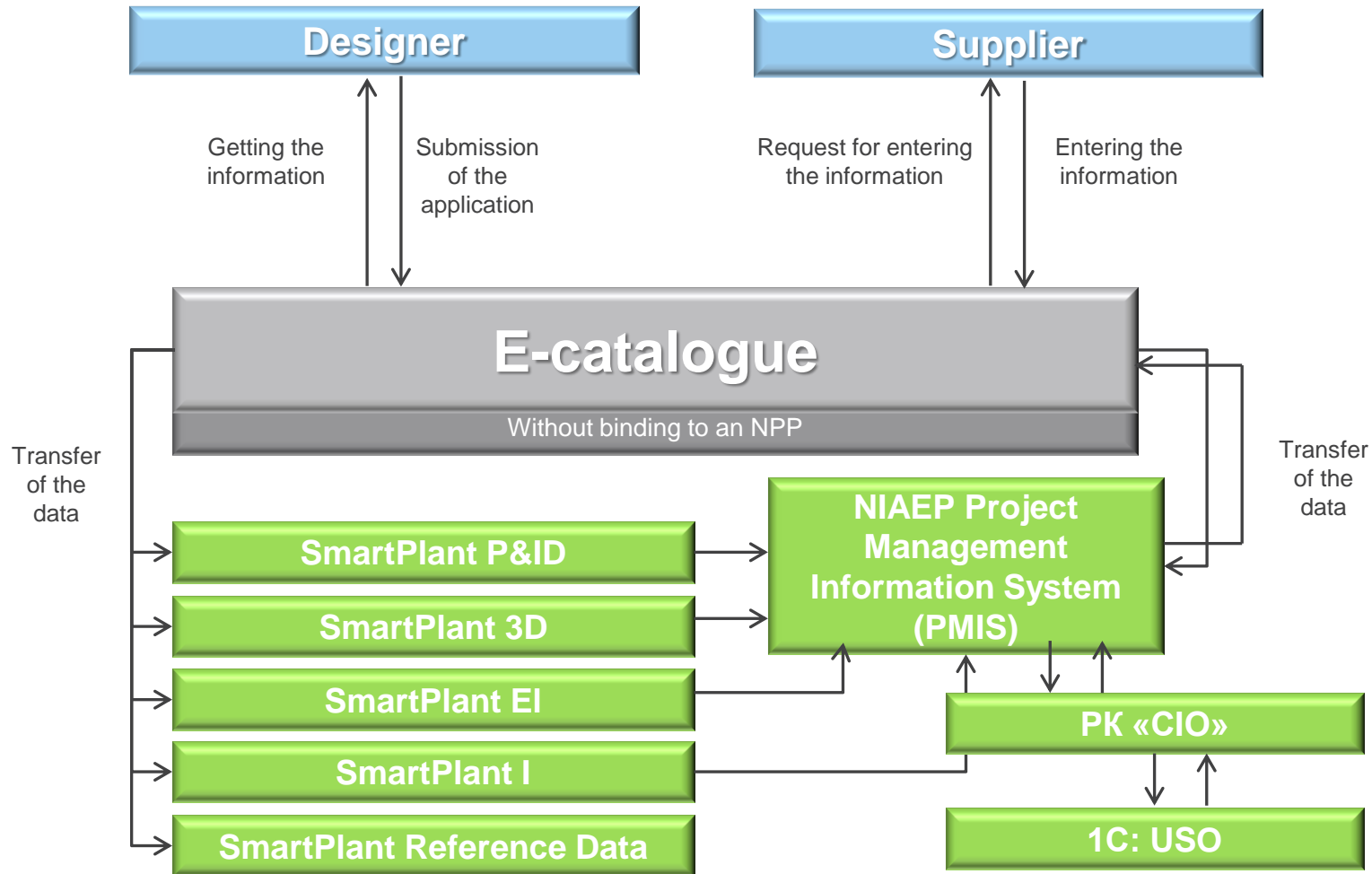
Согласовано:
Госкорпорация «Росатом»
Директор по капитальным вложениям

Сахаров Г.С.



1.6	<p>Обеспечить совместное (АО «НИАЭП», ОАО «Атомэнергопроект» и ОАО «Атомпроект») использование «Единого отраслевого номенклатурного каталога оборудования и материалов» (Каталог) в качестве справочно – информационной системы, и совместное применение технологии передачи данных из Каталога в системы проектирования на базе SmartPlant, для тех объектов проектирования, где Генеральным подрядчиком выступает ОАО «НИАЭП – АСЭ».</p> <p>(Регламенты и Рабочие инструкции по использованию и применению Каталога разработаны и переданы в ОАО «Атомэнергопроект» и ОАО «Атомпроект»)</p>	Лимаренко В.И. Онуфриенко С.В. Романов Е.В. Сахаров Г.С.	30.03.2015	Внедрение каталога как существенной составной части единого информационного пространства. Повышение производительности труда проектировщиков.
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E-catalogue in the Common Information Space of JSC NIAEP



Scope of E-catalogue Application and Development Tool for Data Compilation and Storage

Source of product parameter data

The Unified Industry Standard for description of the equipment, information on the basis of the manufacturer documentation, multiple application of once entered data regarding MTR

Source of 3D models for specimen products

The Unified Industry Standard of formats and requirements to 3D, on the basis of design documentation of manufacturers, the geometry corresponds to actual specimen, multiple application of once created 3D model

Tool of dialogue with Suppliers

Query regarding readiness to produce new specimen, getting the TDS, clarification of additional parameters of the equipment, agreement upon new Specifications/ ToR for new specimen equipment





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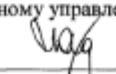
E-catalogue data application


УТВЕРЖДАЮ


Генеральный директор
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Локшин А.М. 

Согласовано:
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Директор по капитальным вложениям
Сахаров Г.С. 

1.7 	Включить в типовые формы Договоров на поставку оборудования и материалов для АЭС, требование к Поставщикам по внесению информации о фактически поставляемых образцах продукции на АЭС в каталог, с установкой действенных штрафных санкций за его невыполнение.	Лимаренко В.И. Сахаров Г.С. Попов А.В. Романов Е.В.	30.12.2014	Актуализация и пополнение каталога параллельно с закупочной деятельностью.
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Principles for Entering the Information into E-catalogue

Urgency, trustworthiness and completeness of the information in E-catalogue is ensured by the following principles:

- ❑ The supplier undergoes the registration procedure on the portal and received the individual login and password for entering the system;
- ❑ The supplier itself enters the information regarding specimen products and accompanying technical documentation;
- ❑ The work in E-catalogue is ensured by the information support by means of the access to guiding documents (www.eoncom.niaep.ru)
- ❑ E-catalogue verification center accompanies online each supplier
- ❑ The supplier receives automatic notifications regarding the status of verification records in E-catalogue



The information regarding the equipment is entered by suppliers within the scope of the following:

❑ **Characteristics:**

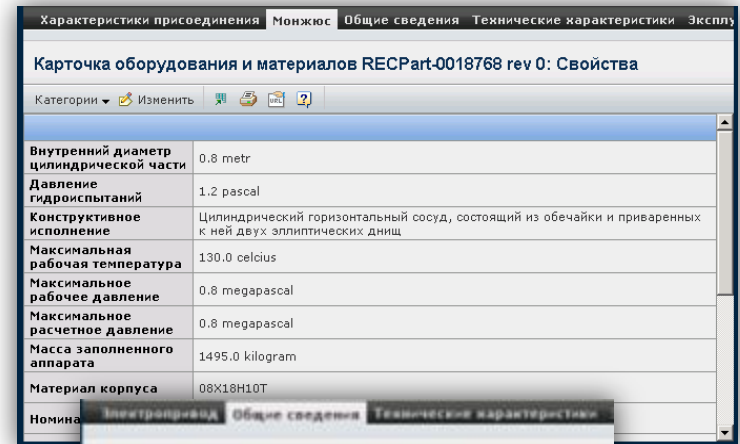
- technical
- mass and dimensional
- safe application
- climatic execution
- resistance to impact of external factors
- classification under NTD





❑ **Documentation:**

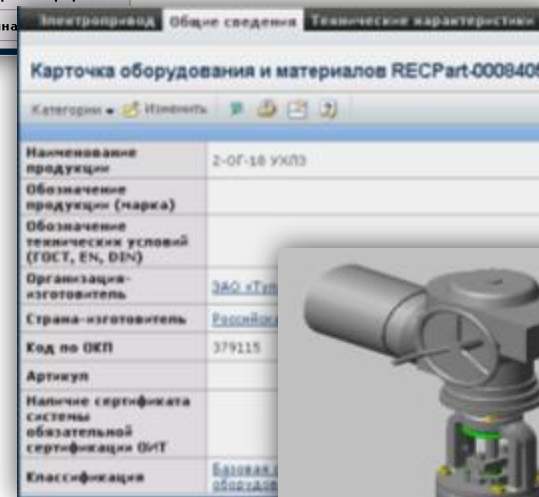
- technical
- operational
- permitting





❑ **Design 3D-model:**

- geometrical dimensions
- connection characteristics

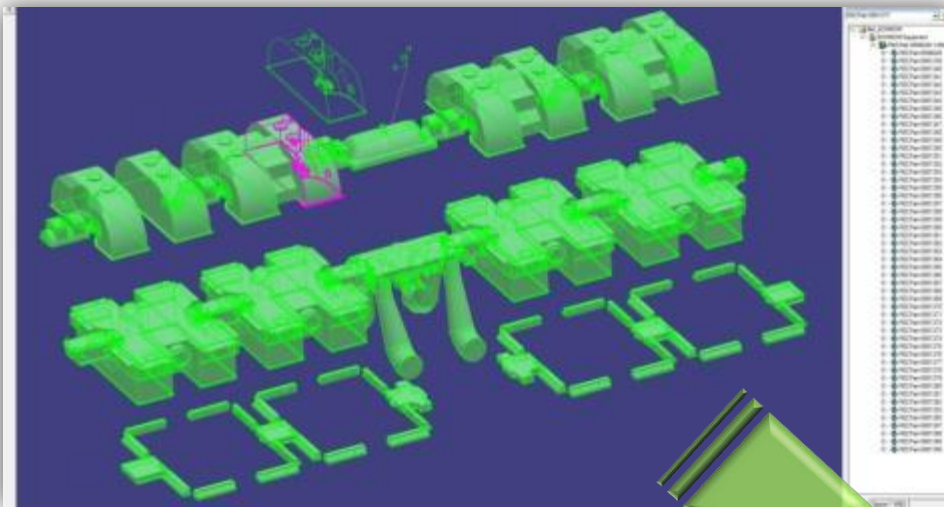


Характеристики присоединения		Монжос	Общие сведения	Технические характеристики	Эксплу
Карточка оборудования и материалов RECPart-0018768 rev 0: Свойства					
Категории  Изменить   					
Внутренний диаметр цилиндрической части	0.8 metr				
Давление гидроиспытаний	1.2 pascal				
Конструктивное исполнение	Цилиндрический горизонтальный сосуд, состоящий из обечайки и приваренных к ней двух эллиптических днищ				
Максимальная рабочая температура	130.0 celcius				
Максимальное рабочее давление	0.8 megapascal				
Максимальное расчетное давление	0.8 megapascal				
Масса заполненного аппарата	1495.0 kilogram				
Материал корпуса	08X18H10T				
Номина	Метрапринад	Общие сведения	Технические характеристики		



Характеристики присоединения		Монжос	Общие сведения	Технические характеристики	Эксплу
Карточка оборудования и материалов RECPart-0008405					
Категории  Изменить   					
Наименование продукции	2-0Г-18 УХЛ3				
Обозначение продукции (марка)					
Обозначение технических условий (ГОСТ, EN, DIN)					
Организация-изготовитель	ЗАО «Тур				
Страна-изготовитель	Россия				
Код по ОКП	379115				
Артикул					
Наличие сертификата системы обязательной сертификации ОИТ					
Классификация	Б-010845/0502438				



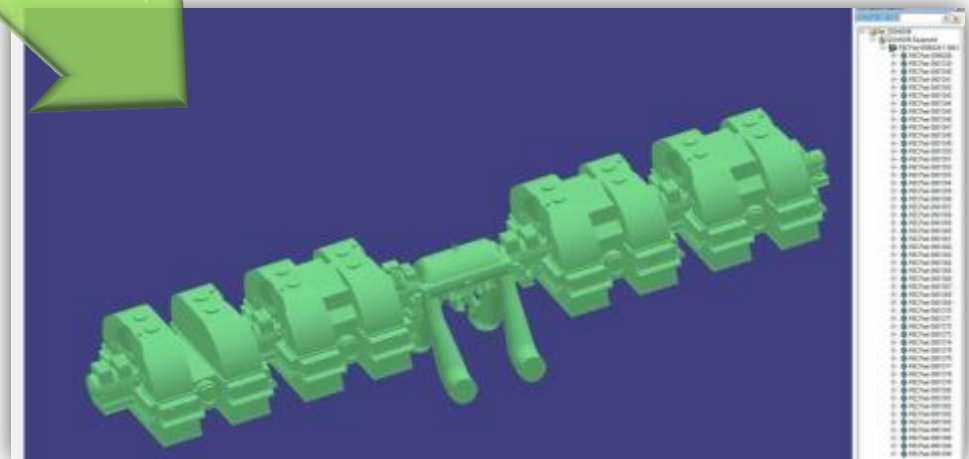


Each component model is executed in compliance with requirements for a unique 3D model

Each component 3D-model has the information regarding connection/attachment elements

The user may unload, into the operating space, the **whole model** or the **model of the component element** of the equipment

When coinciding the points of the origin of coordinates of component models, the **main ready-assembled 3D model** of the equipment is formed



www.eoncom.niaep.ru



Materials:

1. Presentation
2. Instruction on registration
- [3. User manual](#)
- [4. Regulations for filling](#)
- [5. Regulations for filling documents of type "2D drawing" and "3D model"](#)
6. Supply procedure for Supplier of imported equipment, items, materials, semi-finished products and accessories for Belorussian NPP

Materials for foreign suppliers:

1. Requirements for the quality of equipment supplied to NPP, based on a Russian technology





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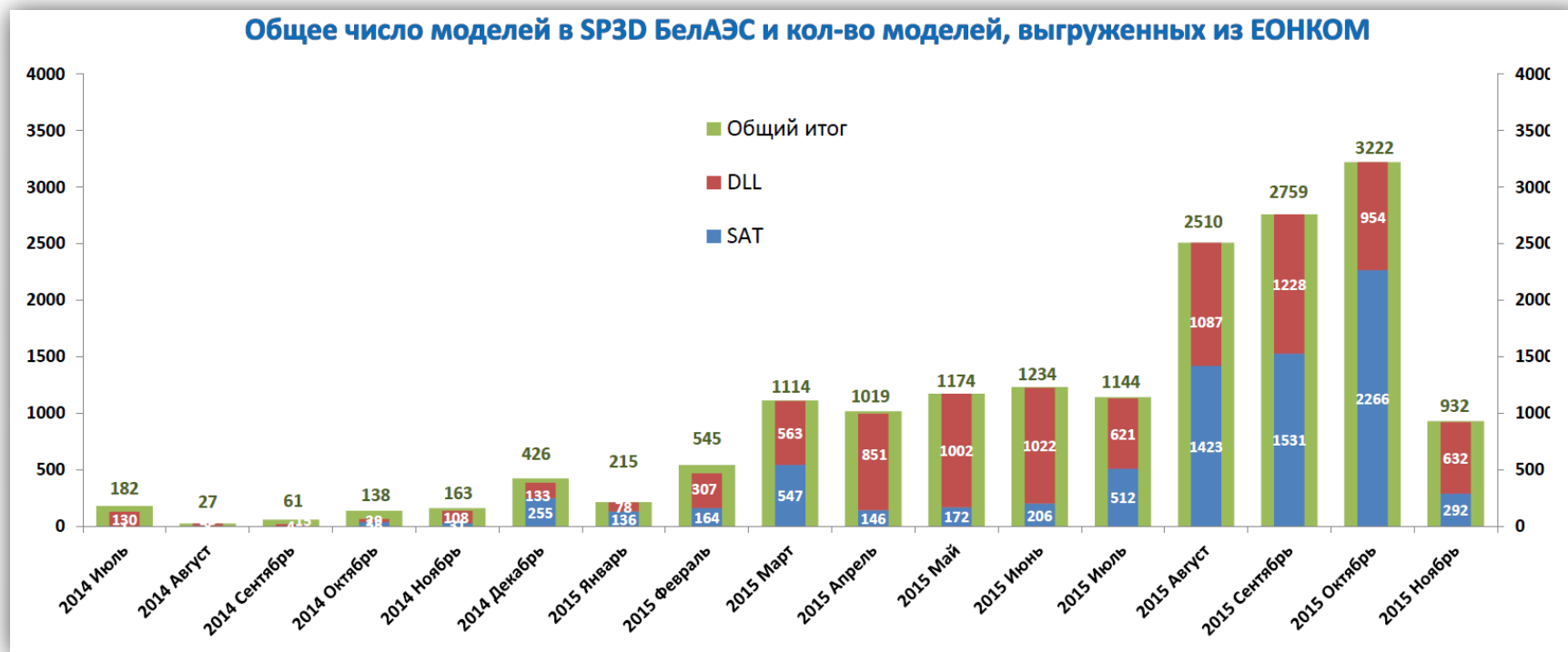
Requirements for suppliers

E-catalogue data application

Application of 3D models of E-catalogue in the Project IS Belarus NPP 1,2

3D models of equipment in the project, total > 15 933

3D models of equipment in the project, from E-catalogue > 15 586



Share of 3D models from E-catalogue in the project IM is ~ 100%.



ASE

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Thank you!

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