

Summary of Changes for FY1999 Submittals

- **Addition of new fields**
Work Proposal Number
Work Authorization System Number
- **Removal of existing fields. The following fields are not included in the new R&D databases schema and should be removed from the submittal.**
Acc-lim
Subject Area
Funds Distribution
- **Limitations of the length of text fields. The following fields will be limited to 4000 characters.**
Project description
Progress to date
Future Plans
Publications
- **Data Structure**
R&D information can be provided in two different formats to OSTI. These are XML and comma delimited formats. The requirements for submittal of comma delimited formatted documents will be the same as in previous years. New requiremnts for XML formatted submittal are given below.
- **XML Format**

Skeleton of a XML document

<?xml version="1.0"?>	Denotes version of xml
<!DOCTYPE doc SYSTEM "rd.dtd">	Denotes DTD used for validation.
<doc>	Required tag at the beginning of the file
<rec>	Required tag at the beginning of each record
<fieldname>	Required tag at the beginning of each field Fieldname must be in the DTD.
...	
</fieldname>	Required tag at the end of each field
....	
</rec>	Required tag at the end of each record
<doc>	Required tag at the end of the file

Guidance for producing a valid XML document and submittal of data for R&D

Opening and closing tags must match and the tag names must be the same as listed in the DTD and they are case sensitive.

Closing tags must always be present in XML.

Special formatting of &, < and > characters is necessary for these characters to be recognized correctly by the XML parser.

Character	Format
&	&
<	<
>	>

Multiple values for a field should be entered as one field with each value separated using semicolons except for B&R codes and costs.

B&R codes and cost should be entered as separate tags within the group tag
 as seen below. B&R codes must be listed before B&R costs and both tags entered if either are entered.

Example of XML file for submittal

```
<?xml version="1.0"?>
<!DOCTYPE doc SYSTEM "rd.dtd">
<doc>
<rec>
<res-org>ANL</res-org>
<proj-ttl>Title of sample project</proj-ttl>
<fund-mec>M&amp;O</fund-mec>
<proj-id>P/ANL--000004</proj-id>
<proj-desc>Description of the sample project</proj-desc>
<poc-name>Helt, J.</poc-name>
<poc-phone>630-252-7335</poc-phone>
<sp>EM-10</sp>
<br>
<br-code>EX602006</br-code>
<br-cost> 5000</br-cost>
<br-code>EX600000</br-code>
<br-cost> 3000</br-cost>
</br>
<perf-zip>60439</perf-zip>
<deliverables>SI</deliverables>
<start-date>19910401</start-date>
<type-res>D</type-res>
<asref-no>ADS CHHQ2202</asref-no>
<poc-email>jhelt@anl.gov</poc-email>
</rec>
</doc>
```

R&D DTD used to validate XML submittals

```
<!ELEMENT doc      (rec)+>
<!ELEMENT rec      (proj-id?|res-org? | proj-ttl? | fund-mec? | 
oldprojid? | proj-desc? | poc-name? | poc-phone? | sp? | br? | 
perf-zip? | deliverables? | start-date? | exp -date? | future-cost? | 
progress? | future-plans? | non-doe-cont? | pi-name? | pi-affil? | pi-zip? | 
type-res? | asref-no? | poc-email? | int-where? | subcont-no? | subcont-name? | 
publications? | nfpname? | url? | pi-phone? | proprietary? | nfpname? | nfppoc? | 
nfppoczip? | nfpcost? | nfptype? | wpn? | wasn? | res-subj? )+>
<!ELEMENT proj-id      (#PCDATA) >
<!ELEMENT res-org      (#PCDATA) >
<!ELEMENT proj-ttl      (#PCDATA) >
<!ELEMENT fund-mec      (#PCDATA) >
<!ELEMENT oldprojid      (#PCDATA) >
<!ELEMENT proj-desc      (#PCDATA) >
<!ELEMENT poc-name      (#PCDATA) >
```

```
<!ELEMENT poc-phone          (#PCDATA)>
<!ELEMENT sp                 (#PCDATA)>
<!ELEMENT br                 (br-code , br-cost)*>
<!ELEMENT br-code            (#PCDATA)>
<!ELEMENT br-cost            (#PCDATA)>
<!ELEMENT perf-zip          (#PCDATA)>
<!ELEMENT deliverables       (#PCDATA)>
<!ELEMENT start-date         (#PCDATA)>
<!ELEMENT exp-date          (#PCDATA)>
<!ELEMENT future-cost        (#PCDATA)>
<!ELEMENT progress           (#PCDATA)>
<!ELEMENT future-plans       (#PCDATA)>
<!ELEMENT non-doe-cont       (#PCDATA)>
<!ELEMENT pi-name            (#PCDATA)>
<!ELEMENT pi-affil           (#PCDATA)>
<!ELEMENT pi-zip              (#PCDATA)>
<!ELEMENT type-res            (#PCDATA)>
<!ELEMENT asref-no           (#PCDATA)>
<!ELEMENT poc-email           (#PCDATA)>
<!ELEMENT int-where          (#PCDATA)>
<!ELEMENT subcont-no         (#PCDATA)>
<!ELEMENT subcont-name        (#PCDATA)>
<!ELEMENT publications        (#PCDATA)>
<!ELEMENT url                 (#PCDATA)>
<!ELEMENT pi-phone             (#PCDATA)>
<!ELEMENT proprietary          (#PCDATA)>
<!ELEMENT nfpname             (#PCDATA)>
<!ELEMENT nfppoc               (#PCDATA)>
<!ELEMENT nfppoczip            (#PCDATA)>
<!ELEMENT nfpcost              (#PCDATA)>
<!ELEMENT nfptype              (#PCDATA)>
<!ELEMENT wpn                  (#PCDATA)>
<!ELEMENT wasn                 (#PCDATA)>
<!ELEMENT res-subj             (#PCDATA)>
```