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PD User Guide
NIH Multi-Project Applications

PD User Guide –
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1.0 Introduction

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1.2 Manual Conventions

Navigating to a particular setup often involves several separate clicks. Navigation instructions are abbreviated: Profile > Employment > Add New. The latter would be read as: "Select Profile, then Select Employment, and then Select Add New."

Bolded text directs users to other user guides or other sections within this document. For example, "See the **Admin Tools** user guide for additional information on this feature." Small capitals text direct users to click on a particular item. For example, "Click on ADD to upload a new document or version of an existing document." URLs are referenced as underlined text.

1.3 Changes

15.813.01

- Updated throughout to reflect styling changes
- Minor updates throughout to improve clarity

2.0 Introduction

Examples in this guide are generated using a Multi-Project Test Opportunity; NIH provides several such opportunities for testing purposes. Proposals built using test opportunities can be submitted to Grants.gov's training environment and will flow through to the NIH Commons Demo site, allowing you to follow the entire process through as will occur on a production submission – *assuming that your S2S certificate is registered on Grants.gov's training system with your institutional DUNS and that the same DUNS is listed on your institutional profile in the Commons demo site*. For assistance with these configurations, please submit an ITEMS ticket.

This brief guide is provided as an addendum to InfoEd's Proposal Development documentation to assist institutions with building NIH multi-project applications in InfoEd.

While most of the functionality associated with NIH multi-project applications is familiar, because it is based on functionality associated with NIH single- project applications, there are certain new features that merit review.

NIH has chosen to use the term *component* to refer generically to each of the parts of a multi-project application. Administrative core, cores, projects, career development, training, and other FOA- specific *components* are combined with an Overall component to constitute a multi-project application.

3.0 Big Picture Process

NIH multi-project applications include an Overall Component and a variable number of other components of various types.
Component types, defined by NIH, include:

- Overall
- Admin Core
- Core
- Project
- Career Dev
- Training
- 'FOA-specific'

In InfoEd, each component is a subproject associated with the main proposal record, which is the Overall component.

The overall PI or an administrator initiates each component consistent with the rules established by NIH and codified in the FOA regarding the kind of components that can be included and how many of each type is allowed.

Baseline security controls record-level access via the browse for each component as it does for single-project applications – the PI of the overall component has access to that record via the

browse and the PI of each other component (subproject) can see and edit those components on which they are PI. Subproject PIs cannot see the overall project in the browse (unless they are also the PI of the Overall component) and are unable to see all the other components for which they are not the PI.

The PI of a given component can complete all the data entry and upload documents as appropriate for their component once the overall PI or an administrator working with the overall PI has created it. Each component can be routed separately when it is completed, built, and assembled – although routing is technically optional for multi-project applications as it is for single-project applications.

The overall PI can monitor progress of each component and can access each component from the Components tab within the overall project view. S/he can re-sequence components within a component type, delete a component, or remove a component from the multi-project application but leave it intact as a freestanding proposal record. A *removed* component will be assigned a new proposal number based on numbering conventions and can be found in the proposal browse based on its PI or other data. The overall PI also can run an XML validation on each component to ensure it meets the Grants.gov criteria for acceptance.

4.0 Creating a Multi-Project Proposal

The process for creating a multi-project proposal in Proposal Development (PD) is the same as creating a single-project proposal. Simply select Create New Proposal from the portal and complete the usual steps using the appropriate multi-project opportunity number. All NIH multi-project opportunities are supported for submission through PD.

4.1 Components Tab

The first difference you will notice after completing the questions on the Setup Options screen is that a new tab that will be visible – Components. This new tab is illustrated below in Figure 1 below. The Components tab is generally comprised of two sections, the Components Summary followed by a listing of individual components.

Figure 1: Components Tab

4.1.1 Component Summary

First under the screen header, is the 'Components' section. This section displays basic information about the opportunity *(Opportunity Number, CFDA Number, Overall Total)* on the left side and lists each of the component types allowed for this opportunity in the middle section. NIH specifies the allowable component types for each Funding Opportunity Announcement (FOA). Only components of the types listed may be submitted for a particular application.

This section also provides limits on the page length allowed for the Research Strategy upload associated with each component (may be either 6 pages or 12 pages). Component Type, Minimum, Maximum and Page Limits data are populated using a web service call from your InfoEd environment to NIH. Your S2S certificate must be registered with NIH for this to work and appropriate network traffic must be allowed.
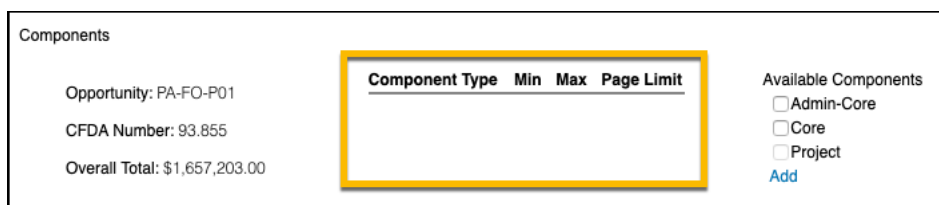
Along with the component types allowed for this opportunity, NIH may specify a minimum and maximum number of each component type. The 'Min' column lists the minimum number of a particular component type that must be included for a submission to pass validation in the Commons. 'Min = 0' indicates an optional component type – zero, one (or more) may be submitted but none are required.

If no value appears in the 'Max' column, then there is no limit to the number of that component type that may be submitted; if a number appears in the Max column, then NIH has set a maximum number of that particular component type that may be included. This same information is available for users to read in the FOA.

The same S2S certificate used for Grants.gov can be registered for 'Applicant Data Retrieval Services' with NIH for use in the Commons using the System-to-System Certificate Access Request form available on NIH's [eRA web services page.](#)

This registration will allow your S2S certificate to download FOA information, which InfoEd PD will use to populate the data in the table referred to above.

Your S2S certificate must be registered with NIH for this section to display properly. If your S2S certificate is *not* correctly registered with NIH, the top portion of the Overall component's Components tab will be missing important information about the application requirements as shown below.

Figure 2: Component data section when S2S certificate is not registered with NIH

The right portion of this upper section provides a way for users to add components to the application package. In addition to the 'Overall' component, which is the enclosing entity, NIH has defined various component types: Admin Core, Core, Project, Career Dev, Training, and 'FOA-specific'.

Each allowable component type for a particular application will appear in the list.

1. Users check a component type and then click **Add**.
2. They will be asked if the PI of the new component is from the prime institution or not. Multi-project applications allow a component leader, and all the work on the component, to consist of a subaward – be entirely external. If the user responds 'No', they will be asked to select the subaward institution.
3. Next, the user will have an opportunity to define certain criteria for the component including its sequence within this component type, and a 'Target Direct Cost', which will limit the amount of direct costs than can be entered on the component budget. Component types are presented in the formal Commons image in alphabetical order, but each component within a given type can be sequenced in the order the PI chooses. The 'Target Direct Cost' field provides a way for the overall PI to set a direct cost limit on the budget of a given component. The application will constrain the component leader from exceeding the set direct cost limit. 'Target Direct Cost' can be left blank, in which case the application will not constrain the component budget. This information is presented in a modal window, which is shown below.

Figure 3: Add Component modal window

4. Clicking **Next** will complete the addition of the component. A new section will appear at the bottom of the screen.

4.1.3 Components Listing

Below the Components Summary section, users will see a section labeled 'Overall', and will see additional sections for other components they have added below that. This section displays specific information about the overall application including project start and end dates and the Grants.gov forms necessary for the overall application. This forms list is functionally similar to the forms list users see on the setup questions page of single-project applications like an R01. The items in this form list correspond to the tabs in the navigation on the left side of the screen.

A section on the Components screen exists for each component added to the proposal. Clicking on the **+/−** symbol in the section header will expand or collapse the associated component data section making the screen easier to navigate.

The figure below shows an example of a Core component; the display is similar for all types of components. The forms grid displays the mandatory and optional forms associated with this component as defined in the FOA.

Figure 4: Individual component display on Components tab

Most of the data in the component section is self-explanatory, although a few items merit review. The PROPOSAL NUMBER is a link to open the component in a new window. *External components can only be accessed via this link because subawards are not accessible via the browse.*

The Progress: VIEW link opens a modal window listing each of the tabs associated with the component and indicating whether each tab has been completed.
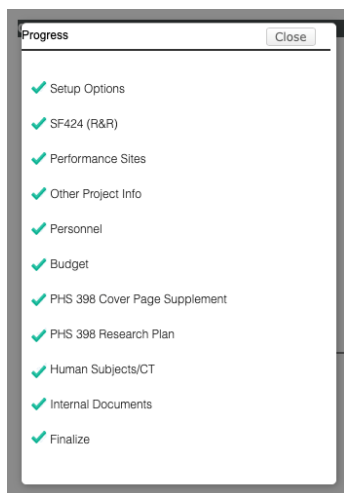
Figure 5: Component progress toward completion

Clicking on the value associated with Attachments opens a modal window listing each attachment associated with the component, showing the file name and the size of the attachment file and providing access to view the document (👀). The attachments link will only display for a component after at least one attachment has been uploaded on that component.
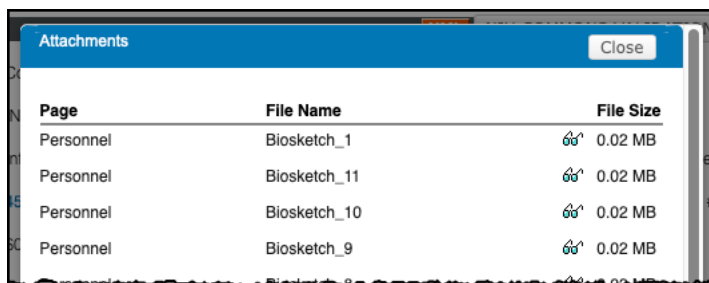
Figure 6: Component attachment information

The Lock indicator may look different depending on the state of the component. VALID indicates that all the tabs of the component are completed and it has been built and assembled – it is technically ready for submission. The Valid indicator does not speak to whether the component has been submitted to or completed routing.

The component's assembled document can be viewed by clicking on the PDF icon when displayed. The checkbox is available when the component is in this state – all tabs completed,

built and assembled to lock the component from further changes. Users with access to the overall component can lock any other component when the correct conditions exist.

4.2 Multiple PI Proposals

A multi-project proposal can have a single PD/PI or can have multiple PIs.
Designation as a multiple PI proposal means that more than one person will have the role of PD/PI and, although one will be designated the Contact PI, all PD/PIs share equally in the responsibility for management and reporting of the science of the project.
Further information on multiple PI applications is available on the NIH website: https://grants.nih.gov/faqs#/multiple-principal-investigators.htm.
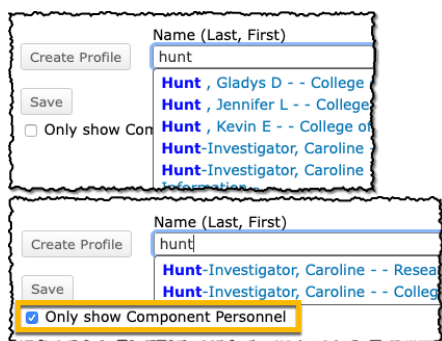
Designation as a multiple PI project does not merely result from having subprojects and assuming that the lead of each component is also a 'PI' on the project. When using NIH's ASSIST system to develop a multi-project application, the head of each component other than the Overall component defaults to the role of "Other: Project Lead"; in InfoEd, these individual's roles will default to "Other: Subproject PI".

Users can edit the role, with the caveat that the 'PD/PI' role is only available for assignment on true multiple PI applications. The PD/PI role cannot be assigned to a person on any component other than the Overall component. For a multiple PI proposal, personnel on a component can be added to the Overall component Personnel page and on the Overall component they will automatically be assigned the role of PD/PI.

To designate an application as one with multiple PIs, users should respond 'yes' to the question "Will your proposal involve **multiple principal investigators**?" *on the Setup Questions tab of the Overall component*. Once this is set to yes, the option to add other PD/PIs to the Overall component > Personnel tab will become available.

On the Overall Component personnel screen, users can use the standard functionality to add other profiles as additional PD/PIs. An option is available to limit the profiles presented in the progressive text search results to those profiles already associated with existing components on the application.

Figure 7: Addition of multiple PD/PIs

5.0 Building and Managing a Component

Each component is managed the same as a single-project NIH application is within InfoEd, with the only exception being that it must be created from the Components tab of the Overall component by the PI of the overall project rather than from the portal.

The usual array of tabs associated with an NIH application is displayed for each component's PI to complete, build, assemble, and if appropriate, submit to pre-review or final route. Each component is functionally like a distinct NIH single-project application with its own personnel, budget, and other tabs.

The individual component Setup Options tab will automatically display certain inherited data from the Overall component that will not be editable. Other data that is specific to the individual component can be edited.

The SF424 R&R Multi-Project Cover tab is the only one that will be unfamiliar to users. This tab is a simplified version of the standard SF424 R&R face page that is familiar, but it is presented differently. Instead of displaying a page that looks like the SF424 R&R form page, InfoEd has mimicked the approach taken by NIH in ASSIST – a data-centric approach rather than a form-centric one.

The image below shows an example of the SF424 R&R Multi-Project Cover tab showing the data-centric display format. Each section of the SF424 R&R face page is listed, however only those that are required/available for completion on the Multi-Project Cover page are active.

Figure 8: SF424 R&R Multi-Project Cover Page

While *no data entry is typically required on this page* – it can simply be completed – users are able to click on the active section labels to see the data automatically inserted for that section as shown below. For example, if your institution has multiple business officials for a given node, then the user may need to select a person in section 5, Applicant Information, for the Person to be Contacted.

Figure 9: Expanded Applicant Information section of SF424 R&R Multi-Project Cover Page

Each component will include a Personnel tab and generally a Budget tab; these reflect personnel and budget information for that component only.

Because this is a component of a multi-project application, it cannot be submitted individually to Grants.gov, thus that section is not available on the individual component Finalize tab. NIH pre-submission validation is available at the individual component level

Figure 10: Individual component Finalize tab - NIH pre-submission validation

5.1 External Components

A component is reflected as a subproject on the Overall project as described above and a component can include a subaward for a portion of the work that will occur outside the prime institution. A component can also be entirely external – the entire component is a subaward and no work on the component will be at the prime institution.

Some institutions do not allow entirely external components, however, NIH's data model supports it and so does InfoEd PD. When a component will be entirely external, the prime institution is eligible to request their F&A on the first $25,000 of that component/subaward just as they are on a subaward that exists in the context of any other component.

An *optional form* needs to be included in the Overall component in order to report that additional F&A associated with the external component, as shown below.

Figure 11: Additional Indirect Costs - optional form in the Overall Component

When one or more external components are included in the application, a user needs to add this optional form to the Overall component. Once added, the Overall component will now sport an S2S Forms tab and that plus the form itself is shown below.

Figure 12: Additional Indirect Costs for external component(s) S2S form

Order of events in managing this form is very important. The budget must be completed first, followed by this form being completed to correctly update the face page totals.

The application will constrain users by not allowing them to complete the 'PHS Additional Indirect Costs' form until after the budget has been completed. This is necessary because the

amount added to this form gets added to the budget total to set the total requested amount on the SF424 R&R face page form.
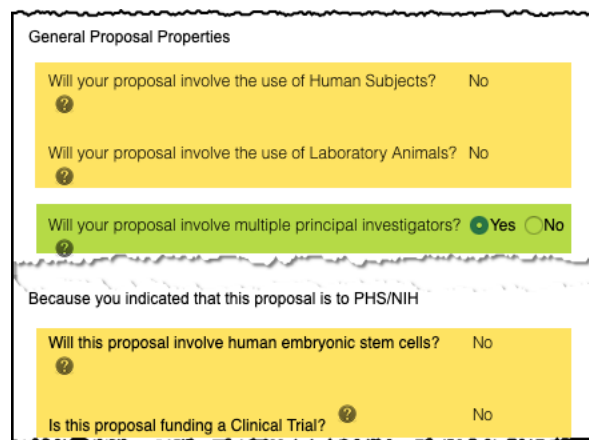
The user is responsible for correctly determining and documenting the content of this form including the base, which will be up to $25,000 for each sub award, carrying forward any amounts as required into future budget periods. For example, if there are two sub awards: A has direct costs of $15,000 in the first period and $15,000 in the second period; B has $30,000 in the first period and $30,000 in the second period. The combined base to be documented in the 'PHS Additional Indirect Costs' form for the first period would be $15,0000+$25,000 = $40,000; for the second period the base would be $10,000. The 'Indirect Cost Rate' is your institutional IDC rate.

6.0 Building and Managing the Overall Component

The Overall component also includes the usual array of tabs associated with an NIH single-project application – including a standard SF424 R&R face page that has to be filled in and completed in a manner that should be familiar to users.

Several questions on the Overall component's Setup Options tab will appear inactive, as shown highlighted in yellow in Figure 18. Green shading highlights an active question. The inactive questions will adjust automatically to reflect the cumulative state from all the associated components of the project when it is finalized for submission.

For example, if no components involve the use of Laboratory Animals, the Overall component Setup Options tab will automatically indicate *No* for that question. If one or more components does involve the use of human subjects, the Setup Options tab will automatically indicate *Yes* for that question.

Figure 13:Overall Component Setup Options screen demonstrating inactive questions

The PI of the Overall project will appear on the Overall component's Personnel tab. Additional personnel cannot be added directly to the Overall component. If the application is intended to have multiple PIs, then that question must be set to *Yes* on the Overall component's Setup Options page and then the additional personnel can be added to the Overall component's

Personnel tab as appropriate. A biosketch must be uploaded for each PI listed on the Overall component's Personnel tab to complete the screen.

The budget of the Overall component looks the same as any other PD budget, however it will be in View Mode as direct data entry is not allowed. The Overall Component budget will reflect the sum of all the budgets on individual components when they are completed.

7.0 Biosketch Management

Each key person on any component (including the Overall component) must have a biosketch uploaded.

When a given profile is included on more than one component, after uploading a biosketch on one component for that person, the user will see that the same profile already displays a biosketch having been uploaded when viewed in the context of another component.

Ultimately, only a single biosketch is stored and can be submitted for each unique profile regardless of the number of components (or types of components) that profile is associated with. If a person/profile is listed on multiple components, *the last uploaded biosketch for that profile is the one that will be submitted*.

8.0 Routing

Routing – both pre-review and final routing – operate at the individual component level as well as at the level of the entire project. Each component can be routed individually. The PI of each component can submit it into route whenever all tabs are completed for that component and it has been built and assembled. Standard routing rules and procedures apply to components, and each component will be routed through the appropriate path based on its criteria.

The Overall component, representing the entire project, can also be routed. Only personnel displayed on the Overall component Personnel tab will be reflected in routing of the Overall component/entire project.

As with single-project proposals, routing is not technically mandatory prior to submission to Grants.gov.

9.0 Pre-Submission Validation and Submit to Grants.gov

Prior to being able to submit to Grants.gov, each component (other than the Overall component) must be Locked. Locking a component is only possible when that component has been built and assembled. While locked, a component's tabs cannot be un-completed.

Locking can be managed from either the Components tab in the Overall component or from the Submit to Grants.gov section of the Overall component prior to submission to Grants.gov.

When an individual component is built and assembled, it is by definition, *valid*, which is a reference to the state of that component's XML data. If a given person appears on multiple components as a key person, a biosketch upload for that person will be required on each component as described in the section on biosketch management. When a biosketch for a person is uploaded in a component after another component with that person has been built and assembled, the earlier component's XML will be invalid – it includes references to the original biosketch rather than the newly uploaded one that will be submitted. Submission to Grants.gov is precluded until all components XML is made valid again by re-building. The option to re-build the XML for any component is available from the Components tab of the Overall component or from the individual component's Finalize tab.

Component	Status	Lock	Assembled Document	PD Link	Validation	
Admin Core	Revised Budget Requested	☑	🔴	Sub12/16/2016-0000	Invalid	Build
Project	Revised Budget Requested	☑	🔴	Sub12/16/2016-0001	Valid	

Components (All components must be Finalized to submit to Grants.gov)

Figure 14: Illustration of invalidated component XML on the Overall Component > Finalize tab

Should a Signing Official attempt to submit the proposal to Grants.gov with one or more un-locked components, an alert will display, as shown in below, and the application cannot be submitted at that time.

Figure 15: Singing Official alert attempting to submit to Grants.gov without all components being locked

NIH pre-submission validation can be run against the entire multi-project application from the Overall Component's Finalize tab as well as for each individual component from it's Finalize tab.

XML validation on the Finalize tab of the Overall component applies to the Overall component specifically, not to the full proposal. XML validation should be run for each component either from the Finalize tab of the component itself or from the Components tab of the Overall component where XML validation can be initiated for any child component.

10.0 The PT Result

Having created, completed and submitted your proposal in PD, all the data will appear in PT. The PT Requested budget will mirror the Overall Component's budget display in PD. Most components will appear as distinct subprojects associated with the prime (the Overall component). External components will appear as subawards on the Overall component.

The Prime budget in PT, which reflects the Overall component from PD, will have no costs of its own other than those flowing from external components, but will reflect the sum of its subproject (component) budgets.

11.0 Setups

A few additional configurations are required to support NIH multi-project applications.

11.1 PD Screen Templates

The image below illustrates two system-delivered PD Screen Templates that are explicitly to support NIH multi-project S2S applications.

Figure 16: NIH multi-project specific PD Screen Templates

These templates need to be published for use. They can be configured as can templates for single-project applications and will generally be pre-configured for baseline functionality. You can add display of the Internal Documents, Classification Codes or other optional tabs as desired.

11.2 PD Lite

PD Lite can be configured for each of the new PD Screen templates, as indicated in Figure 25 **(PPA Admin > PD Setups > PD Lite)**.
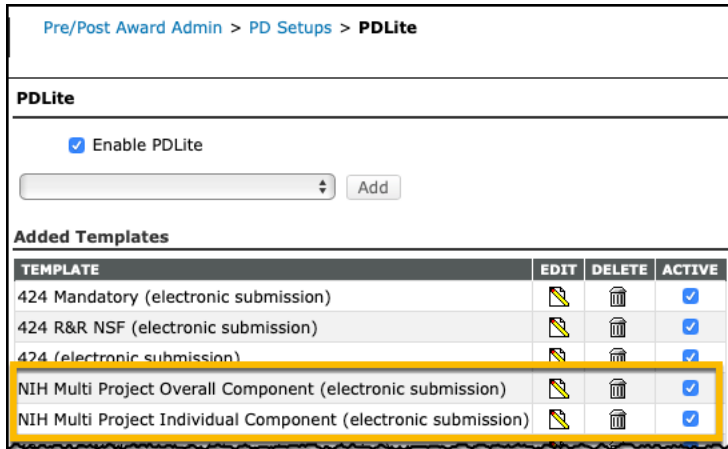
Figure 17: PD Lite configuration for NIH multi-project application templates

Certain questions will be inactive in each of these Screen template PD Lite configurations reflecting the questions that either can only be set at the Overall component or those that must be set at a child component and cannot be set directly at the Overall component level.

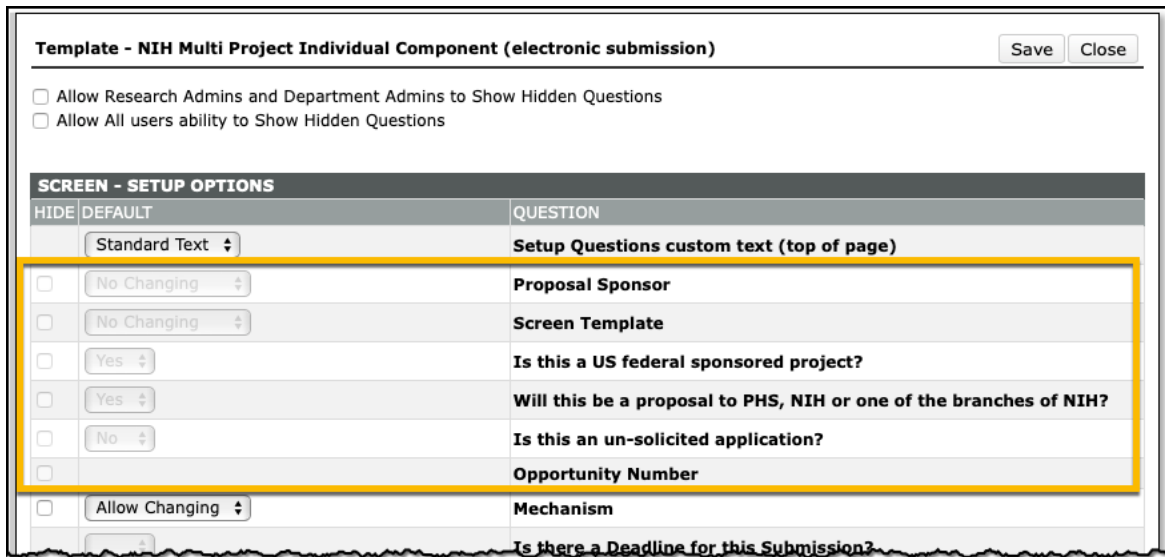An example of questions that are inactive at the child component level is demonstrated in the image below.

Figure 18: PD Lite configuration for NIH multi-project Individual Component... inactive items

11.3 Routing

The routing review dashboard configuration in **Pre/Post Award Administration > Routing > Review Dashboard Setups** includes an option

For institutions that choose the option to display a link to the assembled document in the review dashboard, you also have the option to separately control inclusion of the link to the full application assembled document when routing the Overall Component as shown below.

Figure 19: Routing review dashboard configuration option

An additional configuration option also exists in **Pre/Post Award Administration > Routing > Final Route Statuses** allowing institutions to control when the Overall Component can be submitted into a final route relative to the status of all sub-components. The individual component status can be managed through either pre-review or final routing. This setup allows institutions to establish a routing pre-requisite for individual component routing to have completed prior to being able to route the Overall component.

Figure 20: Final Route Statuses configuration option