



Office of Research Facilities

**Development and Operations
at the National Institutes of Health**

NCR Research Facilities Improvement Program WORKSHOP

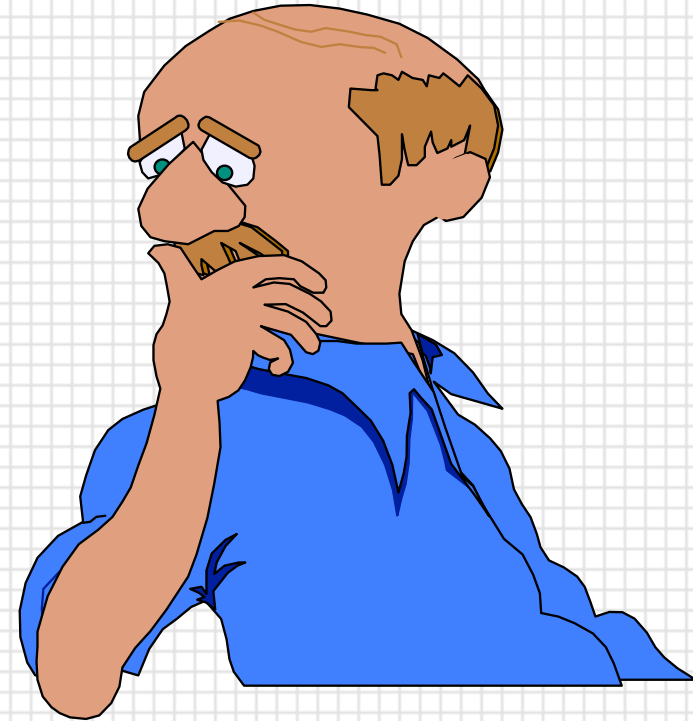
July 13, 2004

∞ **Office of Research
Facilities/Division of Policy
and Program Assessment
(ORF/DPPA)**

∞ **Technical Review Team**

Purpose

- ∞ The DPPA review helps ensure that the goals of the facility and interests of NIH are met through-
- *Accurate program interpretation*
 - *Sound technical design practices*
 - *Does not replace review by facility*



Purpose

∞ Benefits of the Review

- **Increased Communications**
 - *Early identification of potential problems*
 - *Program people understand what A/E is providing*
 - *Learning process*
- **Document Accuracy**
 - *Technical / Constructability*
 - *Bidability of documents*
 - *Coordination*





Office of Research Facilities

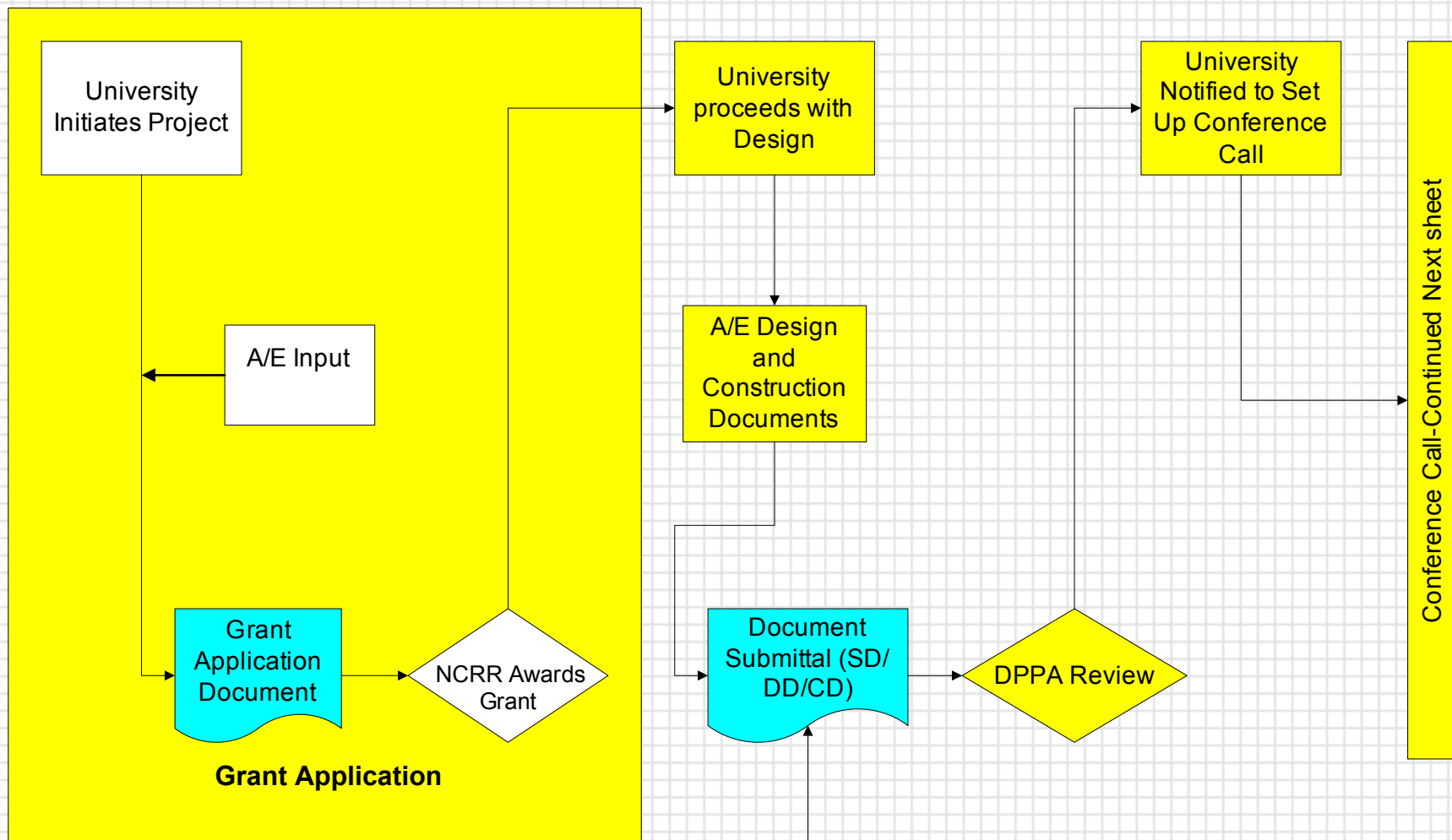
Development and Operations

at the National Institutes of Health

D
P
P
A

R
E
V
I
E
W

Grant Review Process >>>>>





Office of Research Facilities

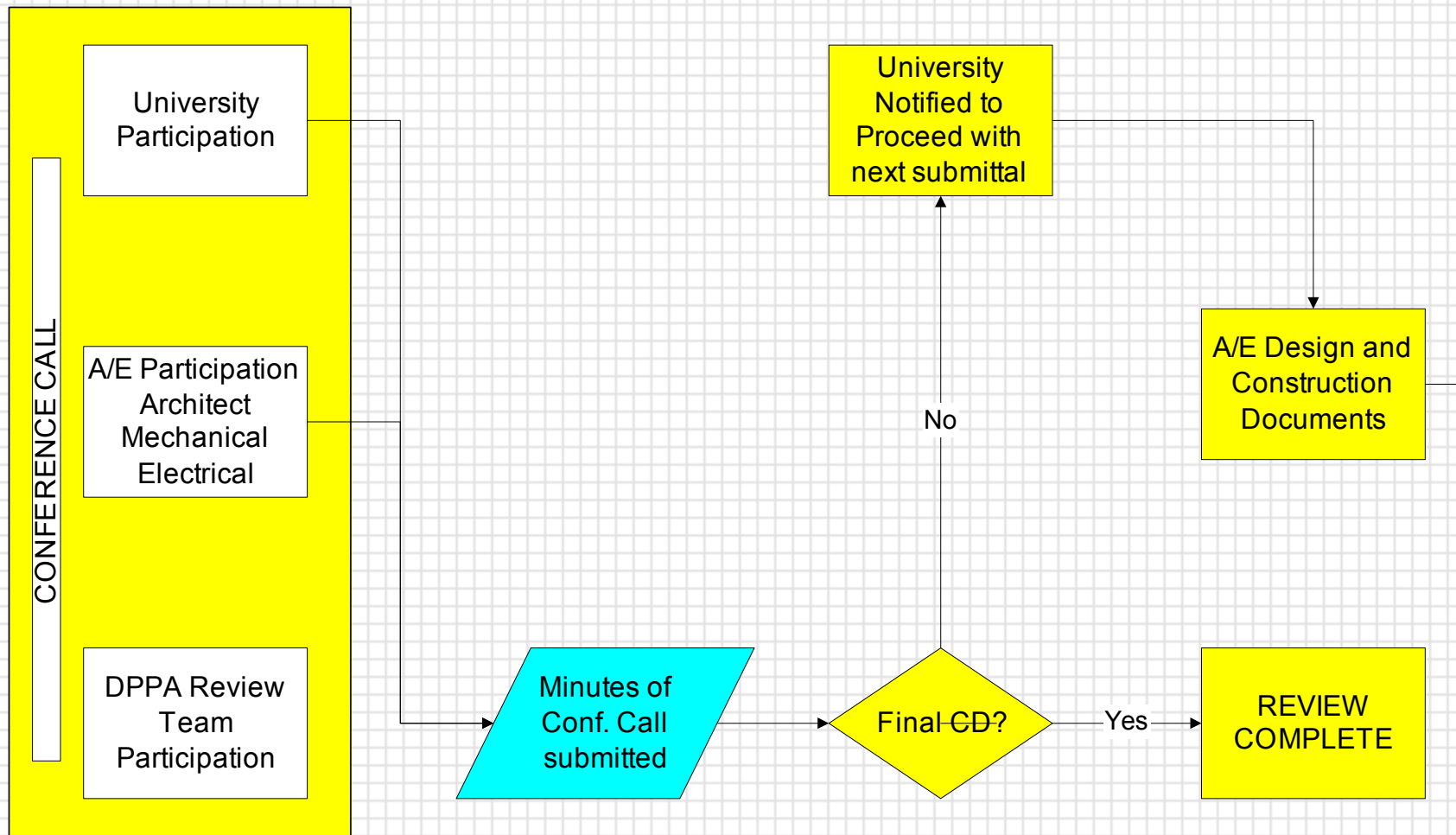
Development and Operations

at the National Institutes of Health

D
P
P
A

R
E
V
I
E
W

Grant Review Process >>>>>

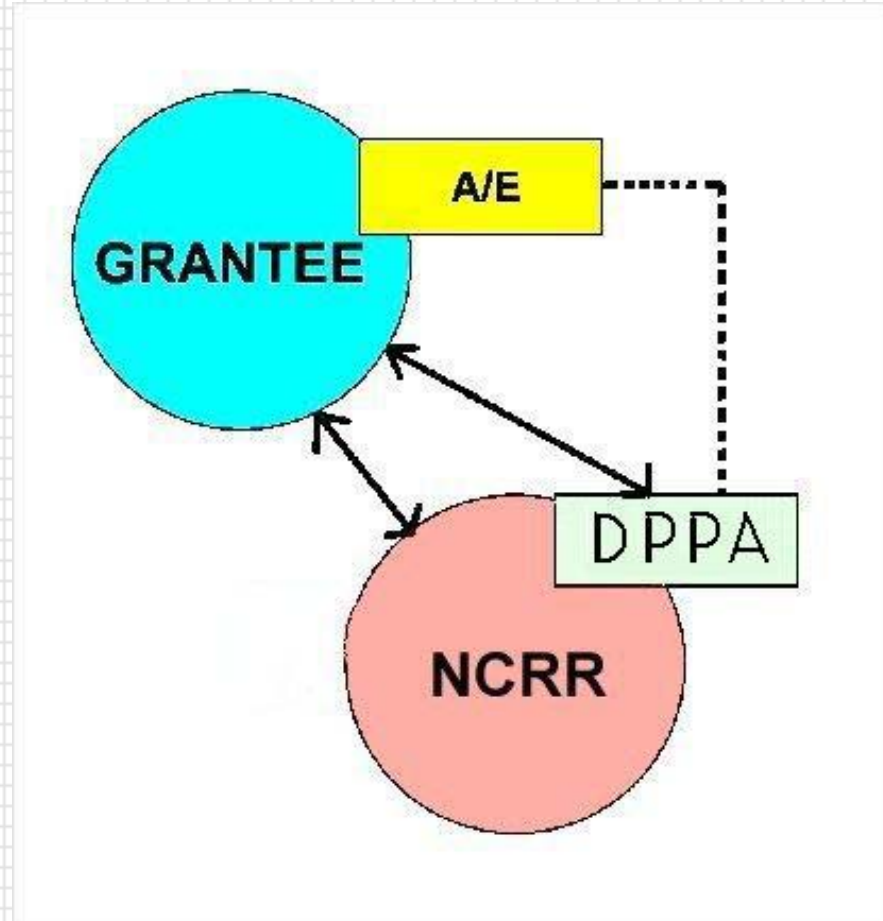


Return to Document Submittal

Relationship Diagram

∞ Interactions

- *Main connection is Grantee to NCRR*
- *DPPA involvement after grant is awarded*
- *DPPA and A/E may have direct discussion*



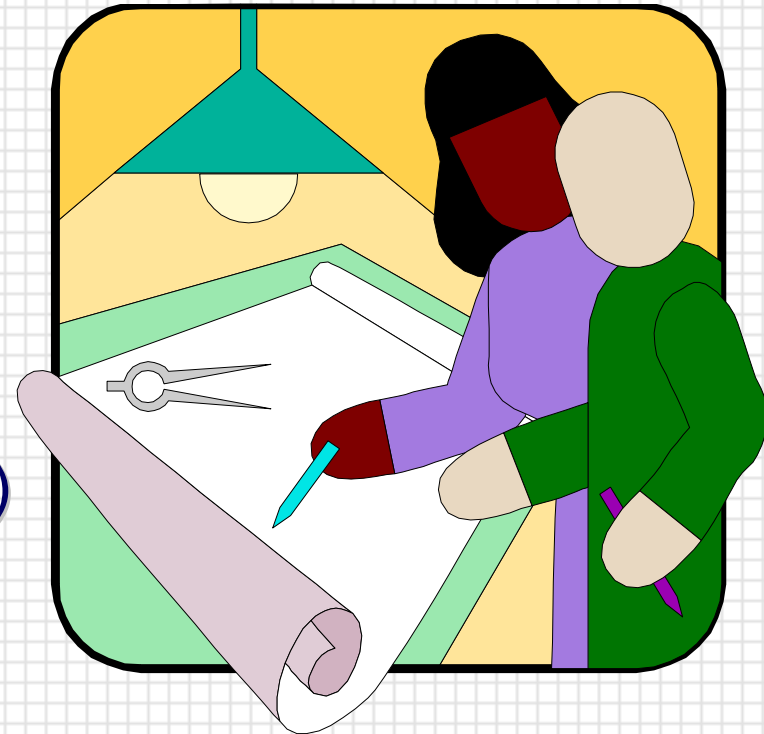
Required Submittals

C06 Type Grants:

- ∩ Schematic Design(SD)
 - 15-35% complete
 - 2 Copies to NCRR
- ∩ Design Development (DD)
 - 65-75% complete
 - 2 Copies to NCRR
- ∩ Construction Documents (CD)
 - 95% complete-Final
 - 2 Copies to NCRR

G20, G12 and P20 Grants:

- 95% complete-Final
- 2 Copies to NCRR





Required Final Submittals

∞ Final Record Set

- *All comments resolved and/or incorporated in drawings and specs*
- *An electronic version of the documents is now required.*

Submittal Checklist

Schematic Design Phase Submission (SD)- 15-35% complete

The SD submission documents should include at the minimum the following:

1. General

- Be coordinated with similar activities in all disciplines.
- Outline Specifications
- Demolition plans for all disciplines
- Preliminary cost estimates
- Hazardous material report (i.e., PCB, Asbestos, Fluorescent lamps, etc.)

2. Architectural

- Existing site plan. (if applicable)
- Proposed site plans. (if applicable)
- Program or Basis for Design Report
- Proposed floor plans of each level
- Fire protection (fire/ smoke walls), new fire protection mains, and fire protection egress plan, Travel distance, access of refuge
- Reflected ceiling plans (areas of special interest and major equipment)
- Preliminary furniture plan (if applicable)
- Proposed finishes
- Indicate major material and systems
- Identification of special structural considerations or systems

Submittal Checklist

3. HVAC/ Plumbing

- Layout of major components in equipment rooms
- Single line of presentation of ductwork and HVAC piping mains
- Energy conservation measures
- Heating and Refrigeration sources
- Block load calculations for space heating and cooling
- Location of existing plumbing equipment
- Plumbing fixtures
- Distribution layouts

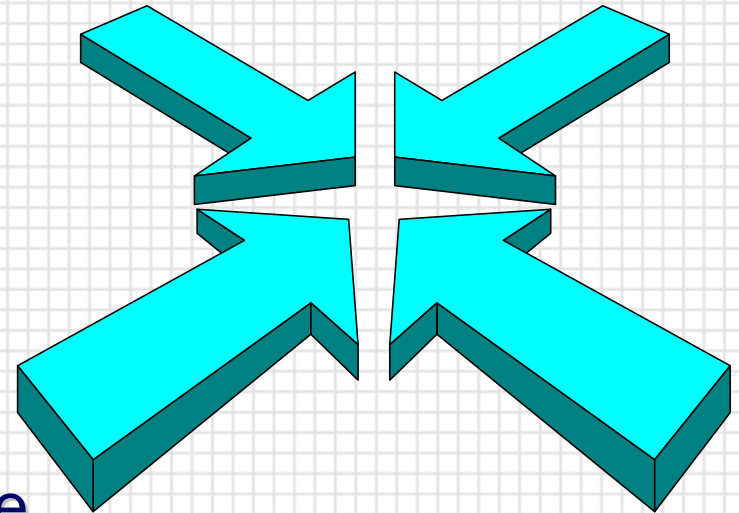
4. Electrical:

- Preliminary design calculations
- One line diagram of proposed electrical system
- Locate connections for normal and emergency power electrical services on floor plans
- Preliminary sizes of major distribution and transformation
- Layout of major distribution and transformation components
- Grounding
- Identify special requirements: grounding, shielding, vibration, magnetic, TVSS, UPS
- Location and types of lighting fixtures (illuminance calculations available)
- Locations of mechanical and major power consuming equipment
- Identification of special systems
- Telephone, data and LAN system requirements
- Communications service entrance location(s) and closets locations
- Fire alarm and other systems

Review Methods

∞ Conference Call

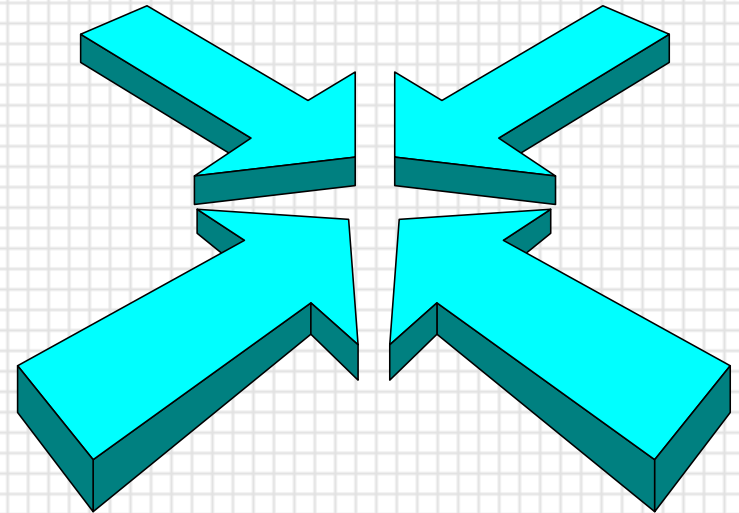
- no back and forth of written comments
- discussions resolve issues during conference call
- minutes of call are recorded and submitted by the grantee or A/E
- submittal completed when minutes are submitted and accepted



Review Methods

Written Comments

- Provided on standard form, via e-mail
- Clearly indicated if Requirement, Recommendation, or Question
- Response by A/E on form via return e-mail.



Review Methods

NIH Technical Review for
 University of
 Grant #
 Submittal -SD

1. Introduction

Response Action Code Key:

A – Accepted; WILL BE INCORPORATED INTO NEXT SUBMITTAL
C – Under Consideration; A/E will check with owner for action
E – Explanation; Comment not accepted with explanation
W – Withdrawn; Withdrawn by NIH after discussion

Comment Code

M – Mandatory
 R – Recommended
 Q – Question or Suggestion

Discipline: Architectural				
No.	Page/Dwg.	Comment Code Key	Comment / Recommendation	Response Action Code Key
A1	General	M	What is occupancy of floor(s)? confirm that two W.C. per floor is adequate to meet the plumbing code.	A. Business and Assembly. W.C. count meets building code.
A2	General	M	Provide code analysis/egress sheet on next submittal	A. Not included in 2/18/04 submittal but in the process of being added now.
A3	A104,105,106	R	All alcoves off the main lab shall have a cased opening or corner guards to protect the gyp. Bd.	A. Not included in 2/18/04 submittal but in the process of being added now.
A4	A104/A200/A201	Q	The design of the elevations limits the amount of natural light to the lab area, this is usually a priority with the users, please confirm that users have chosen the current design over alternatives.	A. This design has been reviewed and approved by the users.

References

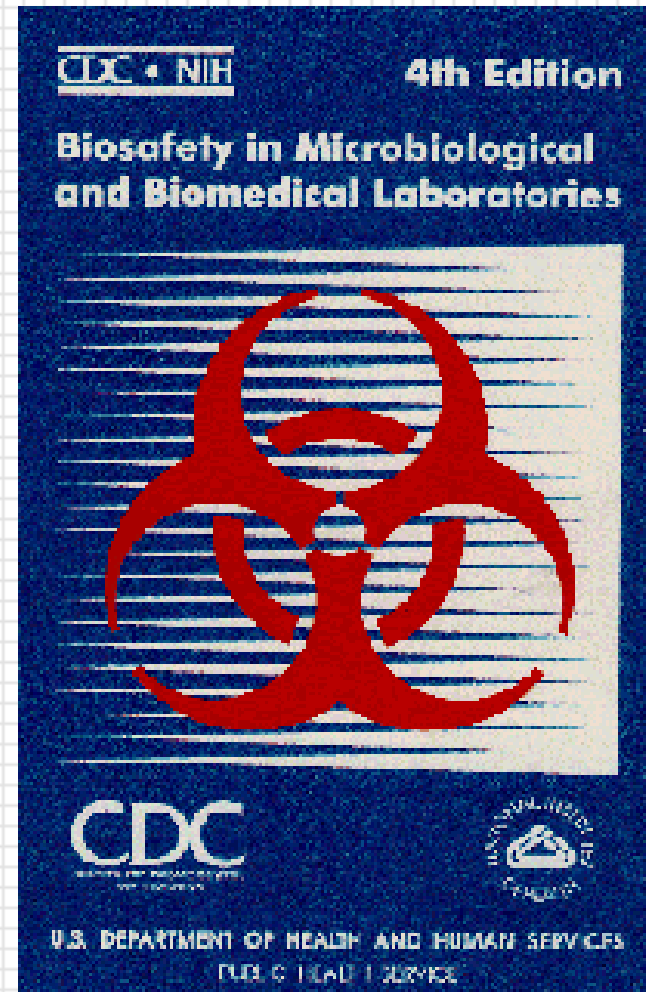
- ⌘ Lab Design Guide
 - *NIH/AIA collaboration*



References

☞ Biosafety

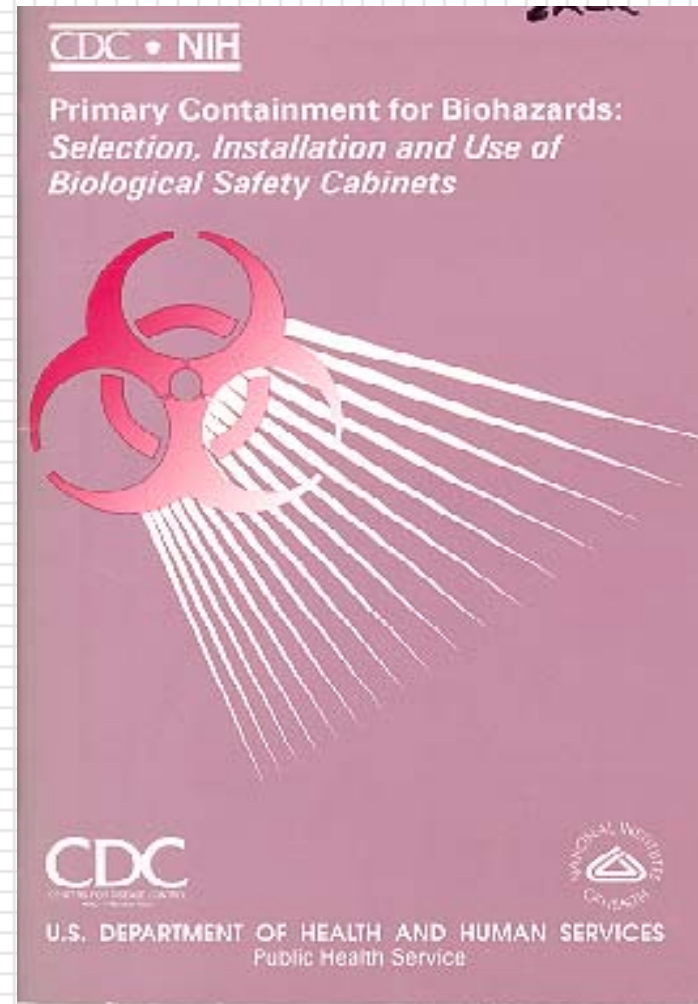
- BSL Levels
 - *Physical*
 - *SOP*
- Labs and Animal
- Containment Devices
- Available on Internet





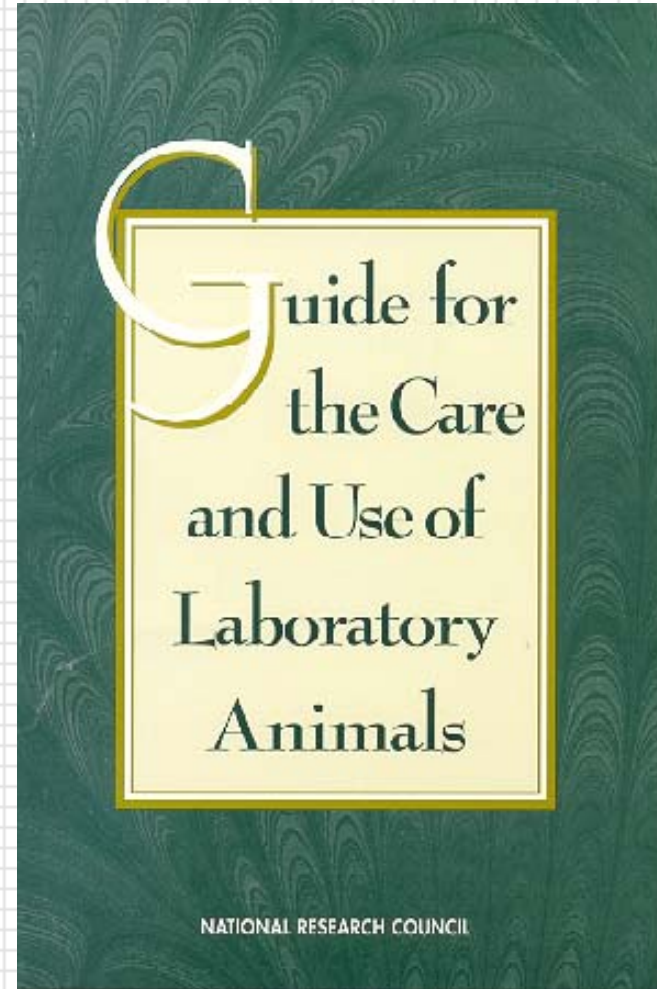
Reference

⌘ Biological Safety Cabinets



References

- The “Guide”
 - *Design of the animal environment*
 - *Referred to for AAALAC accreditation*

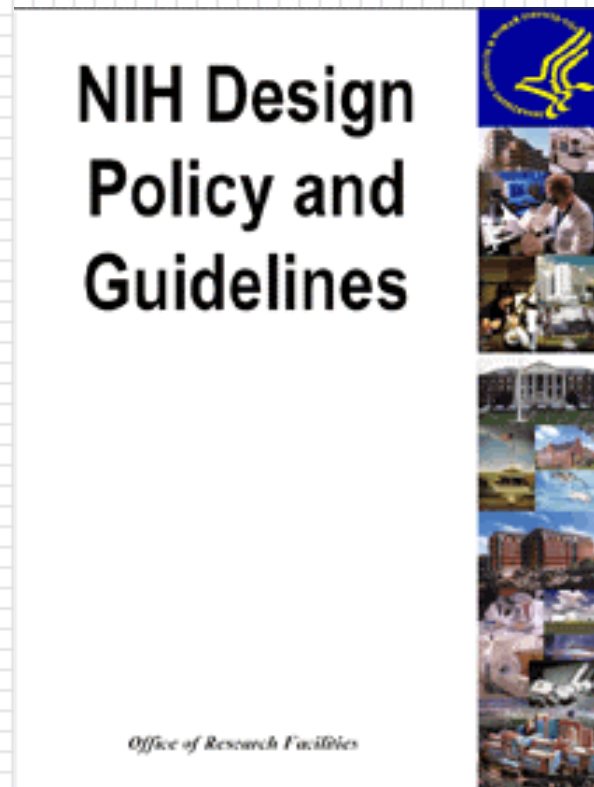




References

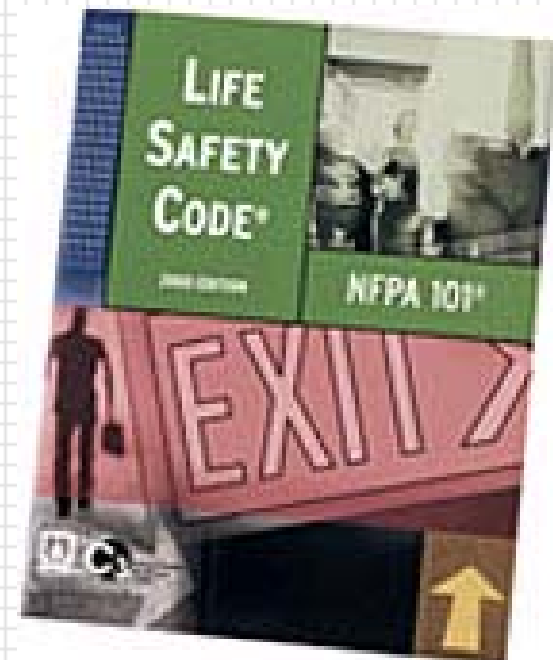
NIH Design Policy and Guidelines

- *available on internet*
- <http://des.od.nih.gov/eWeb/policy/html/index.html>





References



Questions/Answers

Technical Review Team

- **Angela Watson**
 - Architectural
 - 301-435-2103
- **Bob Farahpour, P.E.**
 - Mechanical
 - 301-435-2119
- **Tom Ligis**
 - Electrical
 - 301-435-2129

