

Lecture on Radiation Safety in the Tsukuba Exp. Hall

Mar.25, 2003

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for the Belle Collaborators

Do you have access to the beam area?

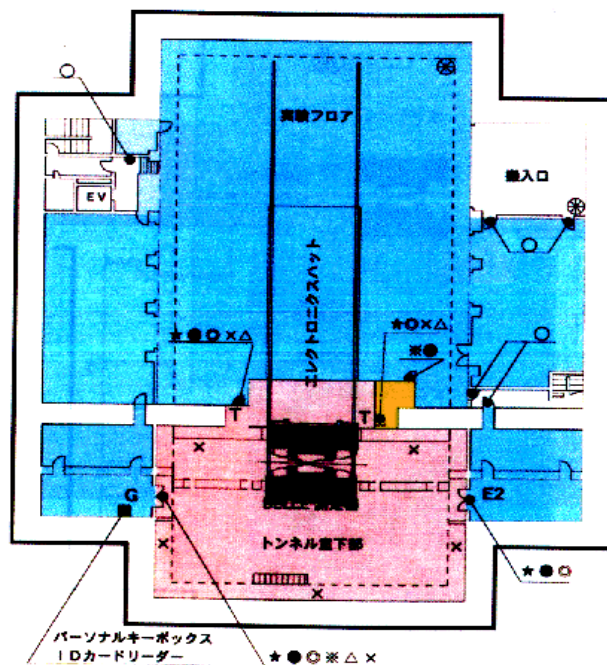
Do you have a chance to guide visitors?

How do you access to the beam area?

The beam area in the Tsukuba =

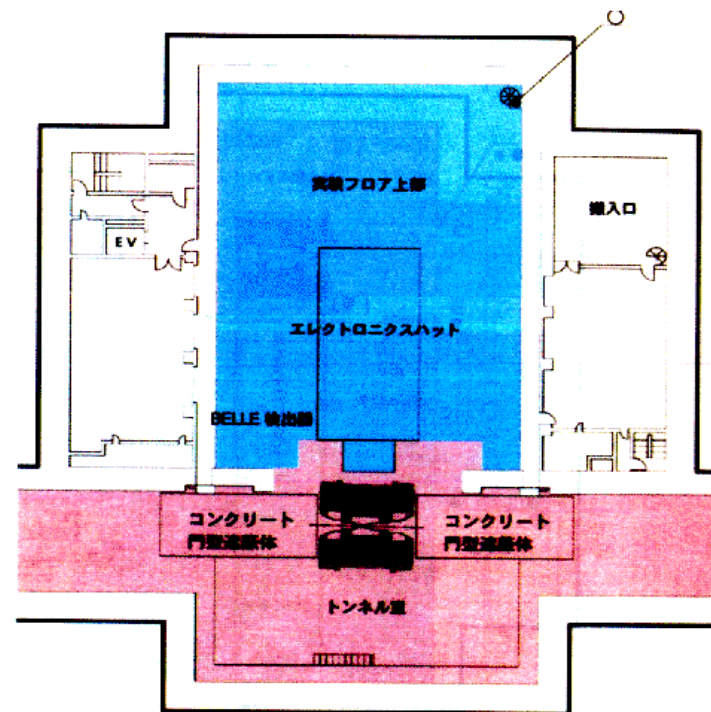
Radiation Controlled Area near the IR of the KEKB ring

Tsukuba Exp. Hall



筑波実験棟B4 BELLE検出器ロールイン時

B4 floor



B2, B3 levels

筑波実験棟B3 ロールイン時

Anyone cannot enter there when the beam is ON (KEEP-OUT MODE)

VERY IMPORTANT!

- ♥ Radiation Controlled Area is ALWAYS Radiation Controlled Area
(even in the summer shutdown period)

Therefore, WHENEVER you enter the area,

- ♥ You must be a RADIATION WORKER registered by KEK admin.
- ♥ Your ID card must be a valid one which is useful to extract a personal key.

and

- ♥ You must take a PERSONAL KEY=“Safety key” with you.
(one key for one person)
- ♥ Ware your personal dosimeter.

Previous rules are common for
LIMIT MODE
and
FREE MODE

However, there are some differences
between the two MODEs

LIMIT MODE: (usually short)
need a permission on
person-by-person basis

FREE MODE: (usually long)
no special permission needed

FREE → LIMIT
Needs special Patrols



Procedure in LIMIT MODE

1. **Get a permission by the Accelerator Shift Leader with telling the names, place and purpose.**

Must be accompanied by KEK staff /Two or more Persons near IR

The KEK staff goes to the accelerator control building to get the permission.

2. Tell the name at the interphone at the gate

3. **Take a personal key using your ID card and Enter using the key (each person must be wearing a key)**

4. Just after Quitting, at the interphone

tell as “Ichi-ji Tai-iki”, or “temporary leave”

in case that you plan to enter, later, again,

or

tell as “Sagyo Shuuryo”, or “work completed”

every time after the work finished

5. Return the personal key (and turn it to the normal position).

Procedure in FREE MODE

1. Simply take a personal key using your ID card.
(each person must be wearing a key)
2. Enter:
Other gates are available if necessary (not recommended)
3. Return the key (and turn it).

How do you guide visitors?

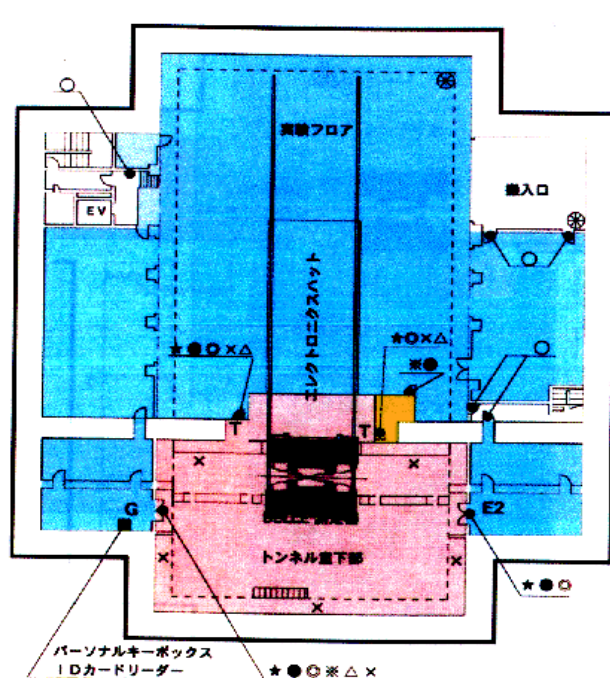
Safe area for visitors = General Area (White-colored regions)

B4 NOT OK

B1 – B3 OK

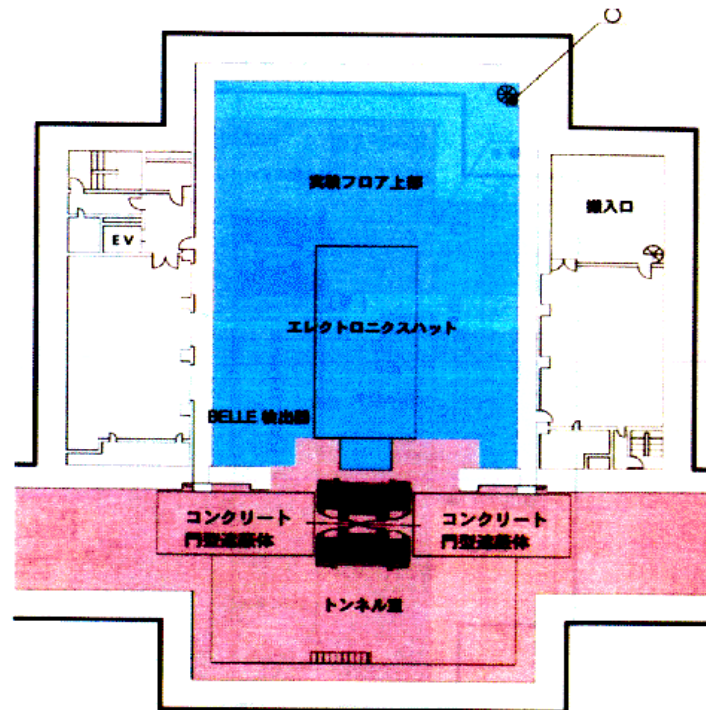
(or consult me, if necessary) (B1 is recommended)

Tsukuba Exp. Hall



筑波実験棟B4 BELLE検出器ロールイン時

B4 floor



B2, B3 levels

筑波実験棟B3 ロールイン時

You, a Belle Collaborator who know Tsukuba Exp. Hall well,
CAN GUIDE (LEAD) visitors in B1-B3 Tsukuba Exp.Hall
(without asking any special permission).

Limitations/Things to be done:

1. Write names of you and visitor representative at the entrance information (guardperson's room)
2. Be shorter than 30 min.
3. Don't go to B4 (Keep yourself always close to all the visitors.
Tours should be well organized.)
4. Visitors can't be Workers (company worker, press reporter)
NOT regarded as visitors
5. Say Hello when you meet the exp. shifts at B3.
6. Consult the safety shift when you have a question.

B4 and the Electronics Hut = Peripheral Surveillance Area

Needs a procedure to write a form at Acc. Control Bldg.



The Beam Area

A special permission is needed.

Consult me or relevant KEK executives, in advance.

Generally speaking, guiding visitors to these places are not recommended in view of the general safety (see the next page)

Take care of General Safety also.

Check schedules of possible heavy works to be done there, and Get a permission when needed.

To guide the visitors in the EH is not recommended
(for safety of the DAQ system)

Consult:

Uehara (4337) (radiation safety at Tsukuba)

Ono (radiation safety at KEKB)

BCG(4862) or Accelerator shift leader(5300)

(for KEKB status)

Information on Radiation Sci. Center (3500)

(For general management of radiation safety/control)

Safety shift (2418) (for general safety in the Tsukuba Hall.)