

TRANSMITTAL OF MEETING HANDOUT MATERIALS FOR IMMEDIATE PLACEMENT IN THE PUBLIC DOMAIN

This form is to be filled out (typed or hand-printed) by the person who announced the meeting (i.e., the person who issued the meeting notice). The completed form, and the attached copy of meeting handout materials, will be sent to the Document Control Desk on the same day of the meeting; under no circumstances will this be done later than the working day after the meeting.
Do not include proprietary materials.

DATE OF MEETING

7/17/01

The attached document(s), which was/were handed out in this meeting, is/are to be placed in the public domain as soon as possible. The minutes of the meeting will be issued in the near future. Following are administrative details regarding this meeting:

Docket Number(s)

50-413 & 50-414

Plant/Facility Name

Catawba Units 1 & 2, Duke Power

TAC Number(s) (if available)

Reference Meeting Notice

July 6, 2001

Purpose of Meeting
(copy from meeting notice)

To discuss control room in-leakage testing to be performed at Catawba Nuclear Station, Units 1 and 2

NAME OF PERSON WHO ISSUED MEETING NOTICE

Chandu Patel

TITLE

Project manager

OFFICE

NRR

DIVISION

DLPM

BRANCH

PD # 21

Distribution of this form and attachments:

Docket File/Central File

PUBLIC

Agenda

Control Room Ventilation Testing

07/17/01
1:00 PM to 3:55 PM
Washington, DC

Meeting requested by: Duke Energy

Type of meeting: Working

Attendees:

Agenda Topics

1:00-1:10 PM

Meeting Overview

Jim Kammer

Discussion:

Catawba LARS (Current)

Annulus Ventilation – Expected 9/2001 submittal

Auxiliary Building Ventilation – Expected 9/2001 submittal

UFSAR Dose Analysis – reconstitution effort underway – Expected 9/2001 submittal

NEI 99-03 – just released

NRC Initiatives – Regulatory Guides to be issued later this year (?)

Catawba LARS (Future)

Outage Improvement Initiatives

Conclusions:

Action items:

Person responsible:

Deadline:

Discussion:

Control Room Unfiltered Inleakage

NRC information needs to ensure timely review of current LARS

Currently an assumed value of 30 cfm

10 cfm Door Opening (SRP)

10 cfm Instrument Air

10 cfm VC System Leakage

No leakage assumed through doors, walls, etc due to control room pressure

NEI 99-03 versus NRC Issues

Tracer Gas versus Component Testing

Catawba Plans (Current)

Perform Component Test

Perform Tracer Gas Test

Validate Component Test via Tracer Gas Test

Perform only Component Testing in future

Establish dialogue on current Catawba Plans

Identify any additional information desired by NRC to successfully accomplish above.

Preliminarily identify NRC concerns on testing approach and future testing.

Conclusions:

Action items:

Person responsible:

Deadline:

1:35-1:50 PM

Control Room Envelope and Control

Jim Kammer

Discussion:

594 Auxiliary Building – Single elevation, very simple physical boundary, one room inside boundary doors typically open

Adjacent Areas

Service Building – OAC Room, Security Computer Room, Hallways, Office Area (VJ, balanced)

594 Electrical Penetration Rooms (VC, balanced)

Auxiliary Building – general areas (VA, slight vacuum)

Cable Spreading Rooms – (VC, balanced)

VC/YC Equipment Rooms – (VC, balanced)

Outside – very short section of wall, no penetrations, roof (NA, ambient)

Major VC System Components located outside of Control Room

Non-Control Room Ductwork traverses Control Room in overhead, pressurized and negative pressure

Intrument Air

Control Room Testing (Current)

Technical Specification Filter and Flow Testing

Technical Specification Pressure verified to adjacent areas

Pressure trended to identify need for corrective maintenance

Periodic system inspections

Conclusions:

Action items:

Person responsible:

Deadline:

1:50-2:15 PM

Control Room Ventilation System

Jim Kammer

Discussion:

Basic Components

PFT – Pre-filter/Moisture removal, HEPA, Heater, Carbon Bed, HEPA, loop seals with non-essential makeup

PFT Fan – 6,000 cfm nominal, essential power, Vaneaxial Fan (no shaft seals)

CR-AHU – 26,000 cfm nominal, essential power, internal fan (no shaft seals), loop seals - condensation makeup

CRA-AHU – 75,000 cfm nominal, essential power, not in Control Room Envelope

Ductwork is welded seam design with bolted flange connections

Normal Operation

Continuously pressurized

Continuously filtered

One complete VC Train inservice

Maintenance Alignment

Design Basis Accident Operation

Outside Air Intakes – Recent Chlorine Amendment

Maintenance Testing Requirements

Control Room Pressure verified any time maintenance alignment is performed

Smoke Test VC Components any time VC Pressure Boundary is opened.

Conclusions:

Action items:

Person responsible:

Deadline:

2:25-2:45 PM

Component Testing

Jim Kammer

Discussion:

Test Method ANSI N-510

Engineering position

Test adequate to quantify unfiltered inleakage

Use Tracer Gas results to validate Component Test

Perform Component Test at some frequency in future depending on margins.

Three test sections

“A” Train

“B” Train

CRA Ductwork

Test Method

Re-balance recirculation line flows for single recirculation line

Isolate Test Boundary

Install blanks in ductwork

Draw constant negative (CRA duct will be positive) pressure on ductwork

Identify leaks and repair

Measure flow

Remove Blanks

Unisolate Test Boundary

Re-balance recirculation line to “As-Found”

Estimated Accuracy - $\pm 5\%$ Reading

Calculation/walkdown has determined Instrument Air Leakage in Control Room

Measurement not considered to be necessary based on low dose impact of this inleakge path due to flow path.

Air Compressor – Washout

Air Dryers

Long tubing runs

Tight clearances in final devices located in control room

Conclusions:

Action items:

Person responsible:

Deadline:

2:45-3:05 PM

Tracer Gas Testing

Jim Kammer

Discussion:

Nucon to be awarded test contract

Recommended test method: Continuous Injection

Estimated test accuracy (Best Case) ± 90 cfm.

Treatment of error – Best estimate or estimate plus error?

Engineering issues with Tracer Gas Test

Cost

Limited Access to Control Room to ensure best possible test results

Poor test accuracy

Dose Analysis Impacts

Operability Impacts

Conclusions:

Action items:

Person responsible:

Deadline:

3:15-3:25 PM

Testing Schedule

Jim Kammer

Discussion:

Divided potential inleakage portions into three sections.

8/6/01 "A" Train

8/13/01 "B" Train

8/27/01 Tracer Gas Test (Nukon)

12/3/01 CRA Ductwork in Control Room

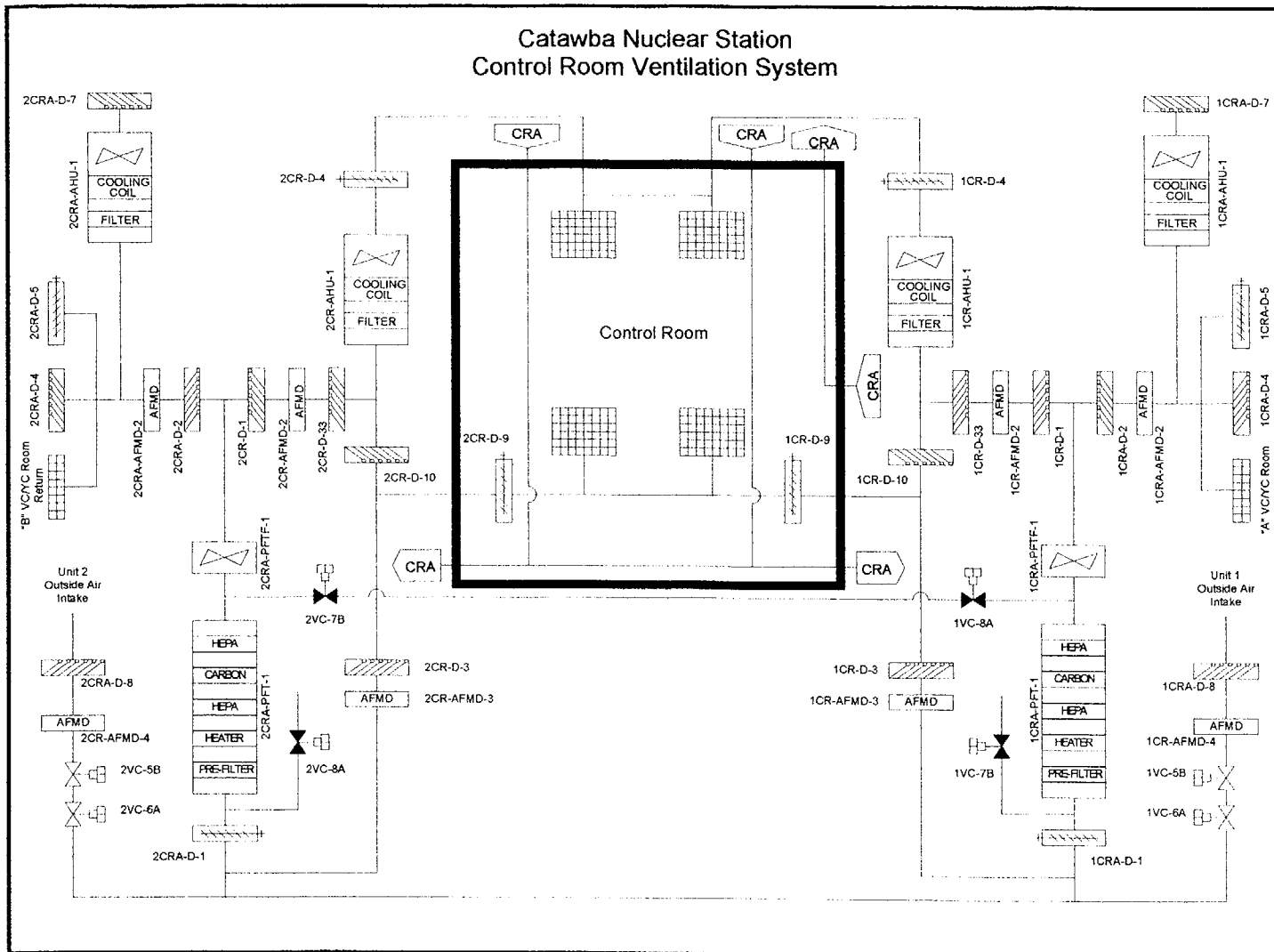
Conclusions:

Action items:

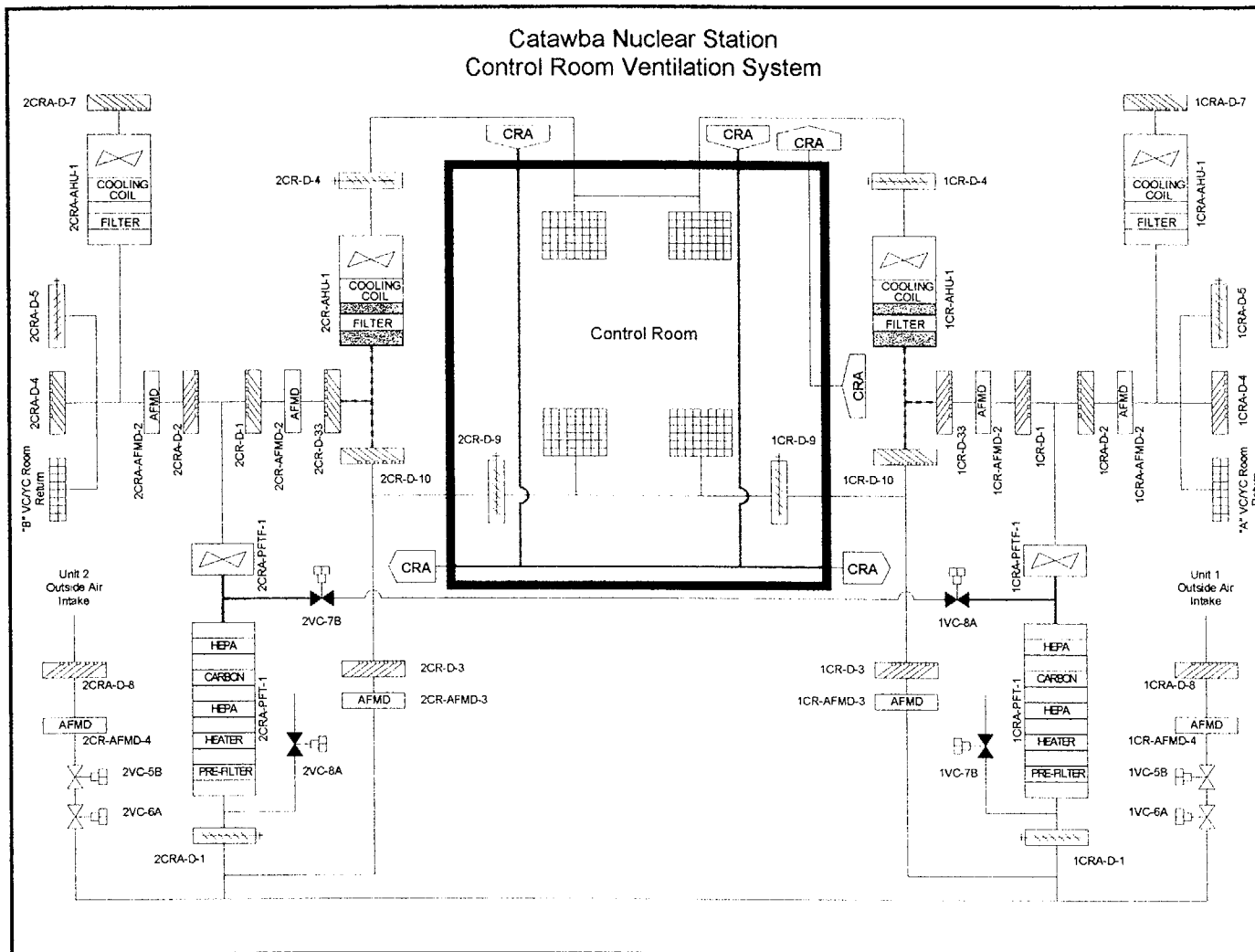
Person responsible:

Deadline:

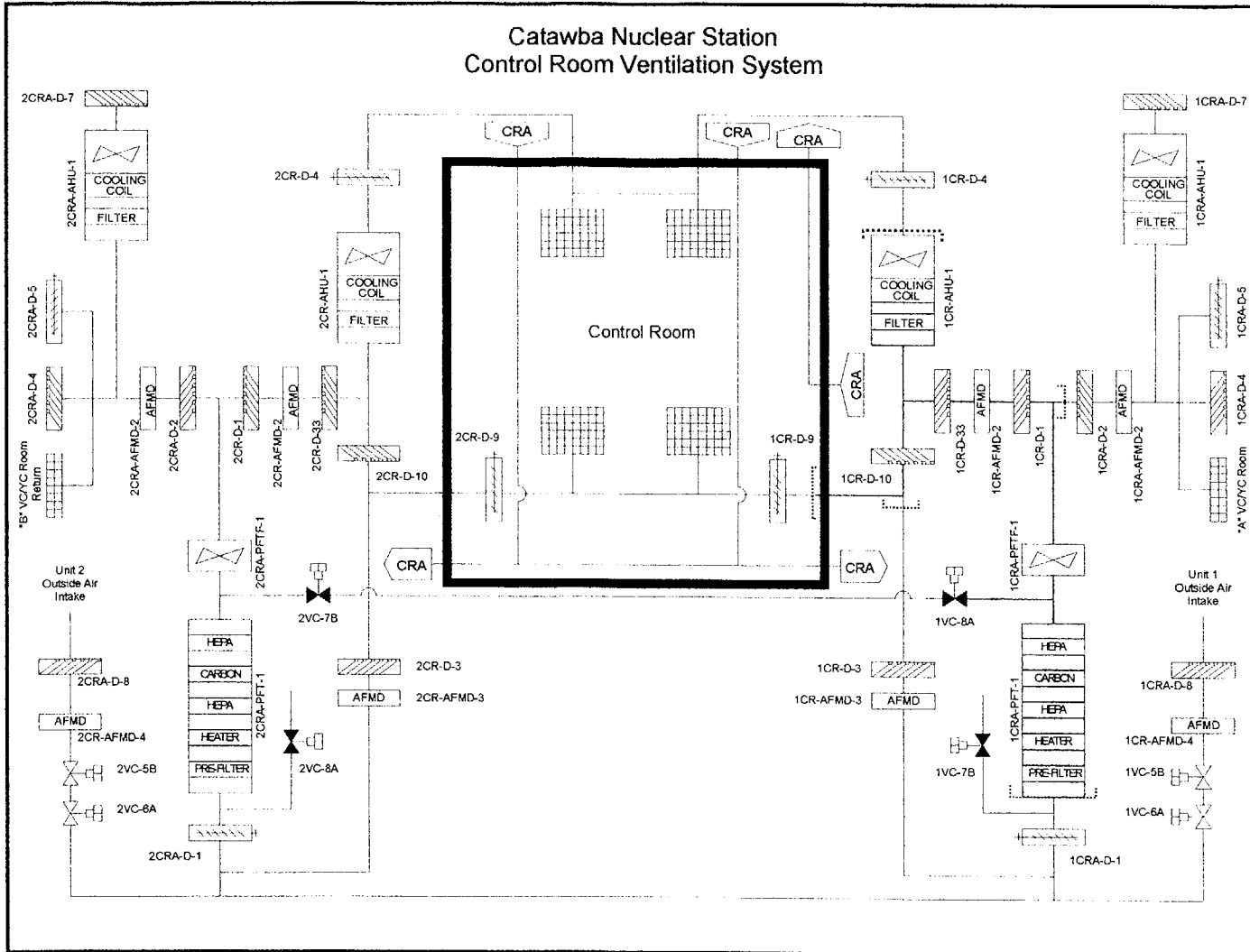
CATAWBA NUCLEAR STATION
CONTROL ROOM VENTILATION
UNFILTERED INLEAKAGE TESTING PLAN DEVELOPMENT PROJECT
FIGURE 1 CONTROL ROOM VENTILATION SYSTEM



CATAWBA NUCLEAR STATION
CONTROL ROOM VENTILATION
UNFILTERED INLEAKAGE TESTING PLAN DEVELOPMENT PROJECT
FIGURE 2 POTENTIAL NEGATIVE PRESSURE DUCTWORK



CATAWBA NUCLEAR STATION
 CONTROL ROOM VENTILATION
 UNFILTERED INLEAKAGE TESTING PLAN DEVELOPMENT PROJECT
 FIGURE 3 "A" TRAIN TEST BOUNDARY



CATAWBA NUCLEAR STATION
 CONTROL ROOM VENTILATION
 UNFILTERED INLEAKAGE TESTING PLAN DEVELOPMENT PROJECT
 FIGURE 4 CRA DUCTWORK TEST BOUNDARY

