



Interoffice Communication

To A.W. Sirmons
From E.L. Kieschnick
Date February 26, 1975
Subject INSTALLATIONS REQUIRED FOR OKLAHOMA CITY
PLANTS REGULATED AREA

The regulated area for the Oklahoma City Plant has been established by setting up North, East, South, and West boundary limits. Included within the limits are the following areas:

1. VCM Unloading
2. VCM Storage
3. V-40
4. Dryer Building
5. Resin Storage Silos

Implementation of the regulated area will require installation of additional fencing, regulated area signs and weather protection for rosters at two entrances. The regulated area will have nine (9) entry points, seven of which will normally be locked. The other two, one at the end of the pipe rack south of the dryer building, and the other at the pipe rack near the southeast corner of the control room, will be designated as roster entrances. Access through any of the seven normally-locked entrances will require clearance by the Shift Foreman and an entry signature on a roster at one of the two roster locations. Entry signatures for the railroad will be entered by the Shift Foreman. Sign locations and additional fencing required are detailed in the work list and on the plant plot plan.

E.L. Kieschnick
E.L. Kieschnick,
Process Engineer

ELK/kv

CC: (RTF-File), CWH, GWS, CHP, JJM, LDJ, MS, JF

CCR 000010629

WORK LIST

1. Construct new chain link fence:

- a. On the west side of the railroad tracks north of the high silos. The fence is to run from the existing fence on the north to a point in line with the north wall of the dryer building. Offset the fence approximately 9½ feet west from the centerline of the existing railroad tracks.
- b. Install a 30 foot gate in a southwesterly (45°) direction from the south termination point of the fence in par a, above.
- c. On the west side of the road west of the plant. The fence is to run from the existing fence on the south to the new gate in par b, above.

2. Post regulated area signs at 50 foot intervals along the pipe rack which runs from the southeast side of the dryer building to just east of the catalyst storage freezers. Continue signposting east to the plant's eastern boundary fence.

3. Post regulated area signs at all entrances (designated by the symbol ▽ on the drawing) as follows:

Boundary Limit

Entrance(s)

Northern

- ▽A. On both sections of the new gate.
- ▽B. On the existing gate located at the NW corner of the dryer building.
- ▽C. On the two dryer building east entry doors.
- ▽D. On both sides of the sidewalks at the west end of the pipe rack south of the dryer building.
- ▽E. On both sides of the sidewalk where it crosses under the pipe rack (near southeast corner of control room).

Eastern

- ▽F. & ▽G. On each section of the two southernmost gates in the east fence.

CCR 000010630

Work List - Cont'd.

Boundary Limit

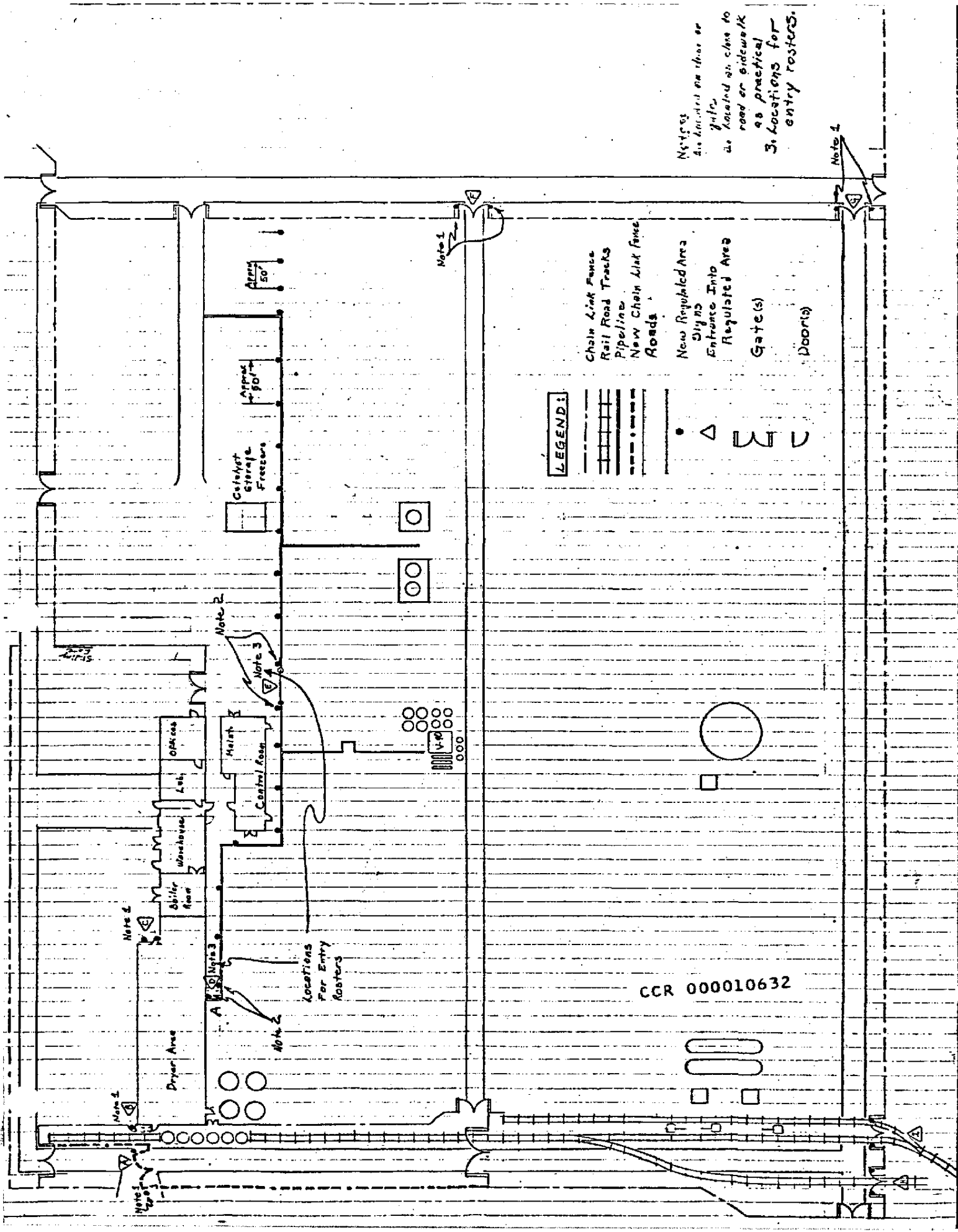
Entrance(s)

Southern

▽H. & ▽I. On each section of the
two railroad entry gates.

4. Construct weather protection shelters at the two roster entrances,
▽D and ▽E.
5. Lock all entrances except ▽D and ▽E.

CCR 000010631



CCR 000010632

ENGINEERING AND WORK PRACTICE CONTROLS PLAN
FOR COMPLIANCE WITH OSHA VCM EXPOSURE STANDARD
CONOCO CHEMICALS
OKLAHOMA CITY CHEMICAL PLANT
April, 1975

EXPOSURE SOURCE

1. Residual monomer in slurry and resin.

WORK PRACTICE CONTROLS

ENGINEERING CONTROLS

1. Design and install equipment required for steam stripping the slurry. Essentially all processing equipment downstream of the polymerization reactors is designed for atmospheric pressure and therefore open to the atmosphere. Processing slurry or resin in this equipment causes the emission of unreacted VCM which can lead to exposures above 1ppm. Plant tests have shown that steam stripping before dumping to the blend tanks substantially reduces the concentration of VCM in the slurry. Thus, the amount of VCM available for emission from the open processing equipment will be greatly reduced by steam stripping and exposure problems will be minimized. In particular, exposures at the dump screener, chemical wash screener, blend tanks, centrifuges, dryers, resin screeners and resin loading areas will be decreased and residual VCM in resin product leaving the plant will be decreased.

CCR 000010633

EXPOSURE SOURCE

2. Obtaining and handling samples.

3. VCM rail car unloading

WORK PRACTICE CONTROLS

2. Wear personnel protection equipment which meets OSHA standards when sampling reactors, slurry, wet cake, or resin.

3. Wear personnel protection equipment which meets OSHA standards while at the unloading rack during car hook-up and disconnect.

ENGINEERING CONTROLS

2. a) Install a new laboratory hood to provide more work and storage space for slurry and reactor samples.

b) Prepare an engineering design for a closed reactor sampling system. Samples obtained during the early part of reaction contain high concentrations of VCM. By enclosing the reactor sampling system, exposure in the reactor area will be decreased because VCM will not be emitted from the sample in the working area.

c) Prepare an engineering design for an improved resin sampling system at the M-500 dryer.

3. Prepare an engineering design to install glasses in unloading lines and rearrange valving at the unloading racks. Installation of sight glasses will eliminate venting to the atmosphere when determining liquid to vapor transition at the end of unloading. Rearrangement of valving will minimize the volume vented during disconnect.

CCR 000010634

EXPOSURE SOURCEWORK PRACTICE CONTROLSENGINEERING CONTROLS

4. Chemical wash screener.

4. Design and install an enclosure and vent system for the chemical wash screener similar to the system on the dump screener.

5. Reactor rinse after dump.

5. Transfer the effluent from the initial water rinse after reactor dump to the dump system and eliminate transfer to the sewer.

6. M-500 dryer exhaust.

6. Prepare an engineering design to elevate the stack for the M-500 dryer exhaust. Currently, M-500 exhausts at the loading rack level which leads to exposure problems under certain wind conditions. Stack elevation will eliminate this problem.

7. All rotary seals, flexible hoses, pipe unions and flanges, valve stems and swivel joints which are in low or high concentration VCM service.

7. At least once per month, measure VCM concentrations at all hoses, flanges, unions, seals, valve stems and swivel joints in low or high concentration VCM service. Repair or replace leakers on-the-spot, where necessary. List other leakers for repair or replacement on the maintenance schedule. The fixed point monitor will detect the occurrence of relatively large leaks which will be attended immediately.

CCR 000010635

EXPOSURE SOURCE

8. Opening and working on equipment or piping which may contain VCM in low or high concentrations.

WORK PRACTICE CONTROLS

8. a) Before opening, remove VCM from equipment or piping to the lowest practical level by flushing, purging and/or evacuation, where possible.
- b) Wear personnel protection equipment which meets OSHA standards when opening equipment or piping which may contain VCM.
- c) Before commencing repair work, measure the VCM concentration in or near opened equipment or piping to determine what protective equipment is required and if further VCM removal should be attempted.

ENGINEERING CONTROLS

8. Install electropolished internals in all reactors. Plant experience has shown that the frequency of reactor entries for cleaning is decreased when electropolished internals are used. This is due to a decrease in polymer build-up on electropolished internals as compared to the build-up on other internals. The plant has five sets of internals. Two sets are electropolished and installed. One set is at the shop for electropolishing. The other two sets will be electropolished when they can be switched out.

CCR 000010636