APPENDIX G: EXAMPLE FORMS

The following example forms and permits were reproduced from AIChE-CCPS, *Guidelines for Process Safety Documentation*, 1995:

- Hot-work permit, Figure 18-1, p. 305;
- Lockout of power-driven equipment safety permit, Figure 18-3, pp. 308-309;
- Pipeline breaking safety permit, Figure 18-4, pp. 312-313;
- Incident/Accident investigation form, Figure 15-1, pp. 260-263;
- Notification of process change checklist, Figure 10-1, p. 184; and
- Change authorization form, Figure 10-1, p. 185.

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The final documents are examples of prestartup review checklists. The first example is a three page checklist for startup following a change, a maintenance shutdown, or construction of new or modified unit. It is most suitable for larger stationary sources with established departmental standards. The second example is a simplified prestartup review checklist.
HOT WORK PERMIT

REQUIRED FOR WELDING, CUTTING, BURNING OR OTHER HOT WORK IN ANY LOCATION OTHER THAN ESTABLISHED SHOPS.
THIS PERMIT TO BE ISSUED ONLY AFTER WORK SITE HAS BEEN INSPECTED.
THIS PERMIT IS SUSPENDED IN THE EVENT OF PLANT ALERT OR EVACUATION.

DATE
FROM A.M. TO A.M. WORK AREA
P.M. P.M.

JOB DESCRIPTION

SITE PREPARATION

1. Equipment Preparation
   Steamed [ ]   Washed [ ]   Purged with ____________________________

2. Has equipment been checked for linings, deposits, or pockets that could be flammable, corrosive, or toxic? [ ] Yes [ ] No

3. Explosimeter check performed?
   If yes:
   Time area was checked ____________________________
   Name of person who made check ____________________________

4. Have hazards of nearby areas been checked?
   Other Floor Levels [ ] Yes [ ] No
   Neighboring Bldgs [ ] Yes [ ] No
   Sewers [ ] Yes [ ] No
   Other Equipment [ ] Yes [ ] No
   Radiation [ ] Yes [ ] No
   Welding Machines [ ] Yes [ ] No
   Properly Grounded [ ] Yes [ ] No

SAFETY EQUIPMENT

5. Protective equipment needed
   Fire Protection [ ]   Clothing [ ]   Ventilation [ ]
   Respirator [ ]   Ear [ ]   Other ____________________________

WORK PROCEDURES

6. Will an operating representative or fire watch be present? [ ] Yes [ ] No

7. Is a Vessel Entry Permit required? [ ] Yes [ ] No

8. Special Procedures ____________________________

ADDITIONAL SPACE ON BACK
SIGNATURE OF PERSON
____________________________________________________
AUTHORIZING PERMIT

DEPARTMENT OR GROUP
____________________________________________________
ASSIGNED JOB

SIGNATURE OF EMPLOYEES
____________________________________________________
ASSIGNED TO JOB

Space for additional signatures on back

SAFETY

STANDARD

FIGURE 18-1. Example Hot-Work Permit
LOCKOUT OF POWER-DRIVEN EQUIPMENT SAFETY PERMIT

This permit covers locking out of electrically driven equipment prior to maintenance work. It also should apply when equipment is being inspected, providing inspection requires disassembly or removal of guards, etc. The permit must be filled out and posted at the work site before the work begins. Employees performing the work should report unusual conditions not covered by this permit to their supervisor immediately. On completion of work, sign and leave permit at work site. Owner returns permit to the Safety Department.

**BUILDING OWNER'S RESPONSIBILITIES**

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Equipment and processing are at a point where power can be cut off safely.</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>2. Turned starter box switch off and attached multiple lockout bar and building lock</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>3. Electrician pulled fuses.</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>4. Tried to operate switch to insure main switch is locked out</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>

**LOCATION**

Bldg. # and Equipment to be locked out

Bldg. Forman’s Signature

Date & Time

If any Items checked NO, please explain

**COMPLETION OF JOB**

BLDG. OWNER: Check that all equipment guards are in place and secure.

Remove Bldg. Lock

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td></td>
</tr>
</tbody>
</table>

SIGNATURE

DATE & TIME

**CRAFTMAN(S) RESPONSIBILITIES**

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Talked to Bldg.Foreman/Lead Operator to discuss job.</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>
2. Placed a lockout tag on main breaker.

3. Placed own lock on main starter box switch or checked that fuse was pulled.

<table>
<thead>
<tr>
<th>Craftsman</th>
<th>Yes</th>
<th>No</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Craftsman 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Craftsman 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Craftsman 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Craftsman 4</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. Tried to operate the control switch to ensure main switch is out.

<table>
<thead>
<tr>
<th>Craftsman</th>
<th>Yes</th>
<th>No</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Craftsman 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Craftsman 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Craftsman 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Craftsman 4</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Signature of Craftsmen

1. ____________________________ ____________________________

2. ____________________________ ____________________________

3. ____________________________ ____________________________

4. ____________________________ ____________________________

ON COMPLETION OF WORK - CRAFTSMAN

<table>
<thead>
<tr>
<th>Task</th>
<th>Yes</th>
<th>No</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Replace guards on equipment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Remove lock and tag</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Signature of Last Craftsman

______ ____________________________

Date & Time

FIGURE 18-3. Example Lockout Permit
PIPELINE BREAKING SAFETY PERMIT

This permit covers Process, Hazardous, and Flammable lines. The permit must be filled out and posted at the work site before the work begins. Employees performing the work covered by this permit will wear proper personal protective equipment for the job and know the location of exits, fire extinguishers, safety showers, and eye wash fountains in the area. Employees performing the work should also report unusual conditions not covered by this permit to their immediate supervisor. On completion of work, maintenance personnel must sign permit and leave at work site. Owner returns permit to the Safety Department.

BUILDING OWNER'S RESPONSIBILITIES

1. Lines have been drained and vented.  
   - Yes  No  N/A

2. Lines have been flushed and cleaned.  
   - Yes  No  N/A

3. Identify last contents

4. All valves and pumps have been positively locked out. (Danger Tag attached.)  
   - Yes  No  N/A

5. Check gauges, sight glasses, etc. to verify that lines are empty.  
   - Yes  No  N/A

6. Flammable vapor check.  
   - Yes  No  N/A

7. Area around work site needs to be roped off.  
   - Yes  No  N/A

Explain it any item is checked NO______________________________

8. ___________________________________________________________________

   Location & Pipelines to be broken (include Building No.)

9. PROTECTIVE EQUIPMENT REQUIRED

   - Acid Suit
   - Safety Glasses
   - Acid Hood
   - Face Shield
   - Rubber or Plastic Gloves
   - Airpack
   - Safety Goggles
   - Air Line Hood

   Other (Specify)______________________________________________

____________________________________________________________________

Date         Time         Bldg. Foreman

G-6
CRAFTSMEN RESPONSIBILITIES

1. Obtained permission to work on line from Building Representative.

2. Piping traced out and verified as being in sale condition. Insured pumps and valves are positively locked out or otherwise secured.

3. Secured area by roping off or setting up barricades.


5. Know the location of safety showers, eye wash, and fire extinguisher.

6. I will wear the protective equipment listed in Step 9 on the other side.

7. Explain it any item is checked NO

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**COMPLETION OF JOB**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Bldg. Foreman</th>
<th>Craftsman</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>1.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Date: Time: Date: Time

Signature of Bldg. Foreman

Signature of Craftsman

**FIGURE 18-4.** Example Pipeline Breaking Permit
### Incident/Accident Investigation

<table>
<thead>
<tr>
<th>Name Last First Initial</th>
<th>Incident Date</th>
<th>Date Reported</th>
<th>Division Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site</td>
<td>Plant</td>
<td>Incident Location</td>
<td>Incident Time</td>
</tr>
<tr>
<td>Job Title Supervisor</td>
<td>Occupational</td>
<td>Undetermined</td>
<td>Precautionary</td>
</tr>
<tr>
<td>Non-occupational</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How did incident occur?</th>
<th>Classification:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. First Aid</td>
</tr>
<tr>
<td></td>
<td>2. Medical</td>
</tr>
<tr>
<td></td>
<td>3. Restricted Duty</td>
</tr>
<tr>
<td></td>
<td>4. Days Away</td>
</tr>
<tr>
<td></td>
<td>5. Near Miss</td>
</tr>
<tr>
<td></td>
<td>6. Fire</td>
</tr>
<tr>
<td></td>
<td>7. Contractor</td>
</tr>
<tr>
<td></td>
<td>8. Overexposure</td>
</tr>
<tr>
<td></td>
<td>9. Illness</td>
</tr>
<tr>
<td></td>
<td>10. Spill</td>
</tr>
<tr>
<td></td>
<td>11. Release</td>
</tr>
<tr>
<td></td>
<td>12. Property Loss</td>
</tr>
<tr>
<td></td>
<td>13. PermitExcursion</td>
</tr>
<tr>
<td></td>
<td>14. off-Site</td>
</tr>
<tr>
<td></td>
<td>15. Other</td>
</tr>
</tbody>
</table>

Complete Reverse Side.

<table>
<thead>
<tr>
<th>Chemical or substance involved:</th>
<th>Exposure above I.H. Limit Value:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Amount discharged to air:</th>
<th>CERCLA or SARA reportable quantity exceeded?</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Amount discharged to land:</th>
<th>Agencies notified:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Amount discharged to sewer:</th>
<th>Disposition of material:</th>
</tr>
</thead>
</table>

Describe injury/property loss:

<table>
<thead>
<tr>
<th>Estimated cost of property loss:</th>
<th>Estimated remedial cost:</th>
</tr>
</thead>
</table>

Why did it happen:

Immediate corrective action(s):

Corrective action(s) to prevent recurrence: Responsibility Target Date
<table>
<thead>
<tr>
<th>Investigator/Employee</th>
<th>Date</th>
<th>Supervisor</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety &amp; Loss Prevention</td>
<td>Date</td>
<td>Department Head</td>
<td>Date</td>
</tr>
<tr>
<td>Ecology</td>
<td>Date</td>
<td>Plant/Site Manager</td>
<td>Date</td>
</tr>
</tbody>
</table>

FIGURE 15-1. Typical Accident/Incident Investigation Form (Sheet 1 of 2)
Target Date
Instructions
Complete all sections on the front page. The Accident/Incident Investigation Report is not complete until the appropriate signatures are obtained. Copies of all injury and illness investigations, except first aids, must be sent to Corporate Safety and Loss Prevention and environmental incident investigation.

This investigation, is "open" until corrective action has been completed. The following, is for the purpose of maintaining computerized Statistics. Complete each block A’ through “V” using the appropriate code number assigned for each entry from the data below. When applicable complete the below, section for number of restricted days and/or number of restricted days and/or number of days away from work.

<table>
<thead>
<tr>
<th>Industrial Injuries Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Employee Soc. Sec. No.</td>
</tr>
<tr>
<td>B. SIC Code</td>
</tr>
<tr>
<td>C. Division M. Time in that job</td>
</tr>
<tr>
<td>D. Site N. Accident type</td>
</tr>
<tr>
<td>E. Plant O. Accident agency</td>
</tr>
<tr>
<td>F. Age P. Nature of</td>
</tr>
<tr>
<td>G. Sex Q. Body part affected</td>
</tr>
<tr>
<td>H. Hours Worked R. Primary cause</td>
</tr>
<tr>
<td>I. Overtime S. Contrib. cause</td>
</tr>
<tr>
<td>J. Employee Status T. Contrib. cause</td>
</tr>
<tr>
<td>K. Occupation U. Contrib. cause</td>
</tr>
<tr>
<td>L. Time Employed V. Unsafe act condition</td>
</tr>
</tbody>
</table>

Number of restricted days:__________________  Final ☐
Est. ☐
Number of days away from work:___________  Final ☐
Est. ☐

A. Employee Social Security Number
B. SIC code
C. Division
D. Site Site Code
E. Plant Plant Code
F. Age
Age in years at time of incident
G. Sex
M-Male F-Female
H. Hours worked before incident
01-1 04-4 07-7 10-10 13- > 12
02-2 05-5 08-8 11-11
03-3 06-6 09-9 12.12
I. Overtime
Y-Yes N-No
J. Employee status
1.Reg full time 3-Temporary
2-Reg part time 4-Non-employee
Appendix G  
Date: July 1, 1998

K. Occupation
1-Warehouse, shipping & receiving
2-Production/utilities worker
3-Maintenance/construction worker
4-Plant services, janitors, guards
5-Vehicle driver
6-Foreman/Supervisor
7-Lab-OC, R&D & pilot plant
8-Sales, marketing, technical services
9 Administrative, clerical

L. Time employed. years
01-less than 1  04-10-20
02-1 to 5  O5->20
03-5 to 10

M. Time in that job years
01-less than 1  04-10 to 20
02-1 to 5 O5->20
03-5 to 10

N. Accident type
01-Fall from elevation
02-Fall. same level
03-Slip or trip without tall
04-Struck against object
05-Struck by object
06.Caught in, under, between
07.Overexertion, strain
08-Public or contracted transportation
09-Motor vehicle (employee’s or company’s)
10-Drowning, buried
11-Explosion, implosion
Contact by:
12-Chemicals
13-Electricity
14-Temperature extremes
15-Noise
16-Radiation
17-other physical agents
18-Animal, insect, plant
88-other

O. Accident agency/involved equipment
01-Fired vessels-boiler, incin., etc.
02-Reactors, columns, vessels. etc. >15 psig
03-Process eqpt. tanks, bins <15 psig
04-Gas or liquid handling (into)
05-Solids handling (into)
06-Mechanical power transmission-gears. couplings, belts, pulleys
07-Portable eqpt. machinery
08-Hoists, cranes, etc.
09-Over-the-road automobiles, and trucks, incl. tank trucks
10-Industrial trucks, forklifts, end loaders, tractors, bicycles
11-Railroad rolling stock, incl. tank cars
12-Piping, hoses, valves and fittings
13-Containers-drums, boxes, pails. cylinders etc.
14-Ladders, scaffold
15-Floors, working/walking surfaces
16-Todos-hand (wrenches, etc.)
17-Knives, scissors
18-Tools-powered (elec., air, etc.)
19-Electrical distrib. sys/apparatus
20-Office equipment
21-Laboratory equipment
22-Fabrication, assembly or machine shop equipment
23-Chemicals
24-Hot liquids/gas
88-Other
99-Unknown

P. Nature of injury/illness
01-Amputation, avulsion
02-Fracture. dislocate crush
03-Cut, scrape. Puncture, sting bite
04-Bruise, contusion
05-Irritation
06-Hernia, rupture
07-Sprain, strain
08-Burn-chemical
09-Burn-thermal or electrical
10-Heat stress, exhaustion. sunstroke
11-Suffocate, drown. asphyxiate (lack of oxygen)
12-Concussion, unconscious
13-Poisoning-acute
14-Other
15-Skin disease or disorder
16-Dust disease of the lung
22-Dust disease of the lung
23-Respiratory-toxic agents
24-Poisoning-chronic
25-Physical agents-radiation etc.
26-Repeated trauma-noise etc.
29-Other illness, heart cont., etc.
00-No injury

Q. Body part affected
10-Head
11-Eyes
12-Ear(s)
13-Face
14-Neck
30-Upper Extremeties
31-Upper arm
32-Elbow
33-Forearm
34-Wnst
35-Hand
36-Finger(s)
50-Body Systems
51-Circulatory
52-Respiratory
53-Neurological
54-Reproductive
00-No body part injured
20 Trunk, Torso

21. Shoulder
22. Chest
23. Back. spine
24. Abdomen, groin
25. Hip
40. Lower Extremities
41. Thigh
42. Knee
43. Shin, calf
44. Ankle
45. Foot
46. Toe(s)

R-U. Causal factors (primary and contributory causes)

Supervision
10. Incorrect/incomplete procedures, instructions
11. Rules, procedures, work methods not enforced
12. Inadequate training of employee(s)
13. Proper tools, equipment not provided
14. Deficient storage/material handling practices
15. Inadequate housekeeping, area inspections
16. Too much rush on job by supervisor

Employee
20. Physical limitation
21. Deficient in skill or ability
22. Influence of drugs or alcohol
23. Lack of alertness
30. Failure to follow written procedures or rule
31. Conlined space entry procedure
32. Hot work procedure
33. Line breaking procedure
34. Lockout/tagout procedure
35. Maintenance, adjustment or cleaning on moving/pressurized equipment/line
40. Failure to follow oral instructions
50. Failure to use personal protective equipment
51. Operating without authority
52. Taking an unsafe Position
53. Unsafe speed, haste, short cut
54. Improper use of tool, equipment, material
55. Use of incorrect tool/equipment/material
56. Improper manual material handling

Environment
70. Horseplay/distraction by fellow employee
71. Error by fellow employee
72. Unsafe eqpl./matl’s./actions of 3rd party
73. Upset conditions-tire/explosion/spill. etc.
74. Exposure to chem/phys/biological agents
75. Weather-rain, snow, ice, wind, etc
99. No other causes

60. Defective equipment. tool material
61. Inadequate or missing guards
62. Inadequate or bypassed safely devices
63. Inadequate maintenance equipment inspections
64. Inadequate lighting
65. Inadequate ventilation
66. Inadequate design/layout (congestion)
67. Inadequate fabrication/installation
FIGURE 15-1. Typical Accident/Incident Investigation Form (Sheet 2 of 2)
## Notification of Process Change Checklist

### Information about the Change:

<table>
<thead>
<tr>
<th>Originator</th>
<th>Date of Origination</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Proposed Date of Change</th>
<th>Area</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Permanent</th>
<th>Temporary</th>
<th>From</th>
<th>To</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Description and Location of Change (Scope)

### Technical Basis for Change

### Nature of the Change:

<table>
<thead>
<tr>
<th>Change affects:</th>
<th>Safety</th>
<th>Loss Prevention</th>
<th>Environment</th>
<th>Health</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Type of Change:

<table>
<thead>
<tr>
<th>Type of Change:</th>
<th>Alarm</th>
<th>Shutdown Point</th>
<th>Addition or Removal of Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Piping Modification</th>
<th>Chemical</th>
<th>Process Computer Control</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Job Procedure</th>
<th>Instrument</th>
<th>Equipment/Material Modification</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Premodification Checklists:

<table>
<thead>
<tr>
<th>Applicable</th>
<th>NA</th>
<th>Initials</th>
</tr>
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</tbody>
</table>

- [ ] Consult piping and equipment specifications.
- [ ] Perform reactive chemicals testing. [ ] In process?
- [ ] Add involved materials to Toxic Substance Control Act (TSCA) inventory.
- [ ] Comply with Engineering Practices.
- [ ] Comply with Technology Center guidelines.
- [ ] Comply with Dow Environmental Protection Guideline for Operations.
- [ ] Comply with Safety and Loss Prevention requirements.
- [ ] Consult Maintenance (name)
- [ ] Consult instrument and electrical technician (name)
- [ ] Consult parts technician (name)
- [ ] Evaluate and modify relief system (name)
- [ ] Consult Industrial Hygiene (name)
- [ ] Consult Process Engineering (name)
- [ ] Complete required reviews (name reviews)
- [ ] Other

### Postmodification Checklist (Before Startup):

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<tr>
<th>Applicable</th>
<th>N/A</th>
<th>Initials</th>
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</table>

- [ ] Performed prestartup audit.
- [ ] Completed or updated training program.
- [ ] Wrote and obtained approval for job procedures.
- [ ] Updated P&IDs process flow sheets and plot plans.
- [ ] Trained personnel on the change.
- [ ] Updated critical instrument checklist.
- [ ] Changed computer code and documentation.

### Approvals:

<table>
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<tr>
<th>Name</th>
<th>Date</th>
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Originator

First Reviewer

Department Head/Superintendent

---

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FIGURE 10-1. Change Authorization Form-Example 2

Change Authorization Form
Initiation: (to be completed by originator)
Originator: ____________________________ Date: ____________________________

Description of Project: (attach sketch, P&ID, etc.)

Process fluid: ____________________________ Operating press: ____________________________ Temp: ____________________________

Approval: (to be submitted by field supervisor)
Ticket No.: ____________________________

1. Operations assistant ____________________________ Date ____________________________
2. Maintenance assistant ____________________________ Date ____________________________
3. Technical team leader ____________________________ Date ____________________________

cc: TSTL for files TSO assigned ____________________________

Process Review: (to be completed by TSO) TSO ____________________________ Date ____________________________

( ) Construction package completed
( ) Process impacts
( ) Scope defined (attach marked-up or revised P&ID)

Mechanical Review: (to be completed by PST/MEG/I/E as needed)
PST ____________________________ MEG ____________________________ I/E ____________________________ Date ____________________________

( ) MEG requirements
( ) Materials of construction
( ) Relief protection review
( ) I/E requirements
( ) Special inspection required
( ) Pipe spec: ____________________________ ( ) MAWP

Construction: (to be completed by field supervisor and inspector)

( ) Construction drawings prepared
( ) Equipment folder updated
( ) P&ID’s updated
( ) On-lines updated
( ) Car seal list updated
( ) Loop diagrams/folders updated
( ) RV list updated
( ) Fugitive emissions list updated
( ) Spare parts stocked

Field supervisor ____________________________ Date ____________________________
Inspection ____________________________ Date ____________________________

Forward completed form to technical support team leader.

FIGURE 10-1. Change Authorization Form-Example 1
PRESTART-UP REVIEW CHECKLIST – PAGE 1

You have been assigned a Prestart-up Review (PSR).
This checklist is a guide to ensure that all CalARP requirements are met

PROJECT/EQUIPMENT DESCRIPTION

A PSR is required for new facilities and for modified facilities for which the modification necessitates a change in the Process Safety Information. This review must be completed prior to the start-up of all new, modified or relocated equipment, machinery, plant, or facilities.

1. _____Prestart-up Review for Maintenance Shutdown. This must be completed prior to every initial start-up after a scheduled maintenance shutdown of a facility (Complete page 3 checklist)

2. _____Prestart-up Review for New or Modified Facilities. Used for new installations or major process unit changes (Complete page 2 checklist)

3. _____MOC generated Prestart-up Review. Used for most jobs of a typical nature handled using the MOC form. (Complete the following checklist)

    Initial each one upon completion
    
    a. _____Construction and equipment are in accordance with design specifications (built as designed).
    b. _____All reviews required prior to start-up of the change have been completed as defined by Management of Change.
    c. _____The Prestart-up Review has been performed by employee(s) with expertise in process operations and engineering, based upon their experience and understanding of the process system being evaluated.

Reviewers Signature: ________________________________
Date: __________________________
PRESTART-UP REVIEW FOR NEW OR MODIFIED FACILITIES – PAGE 2

Plant __________________________
MOC No. _______________________
Description of change: ________________________________

The PSR Team Leader (assigned by the MOC Section 2 Reviewer) convenes a meeting of a PSR Team prior to start up of the stationary sources covered by this MOC-PSSR. The Team Leader chooses team members based on their understanding of the MOC (use the list below as a memory jogger). This team conducts a walkthrough if there is altered or additional equipment. The team verifies the MOC review is complete and confirms the change is ready to start up. The team generates a list of incomplete items identifying item owner and timetable for completion. Representatives acknowledge below their organization's work is complete (except as noted on the list below), that current QA programs were followed and that records will be retained for audit purposes. See Section 5.0 for other team member responsibilities.

Operating Unit Rep: __________________ Date: ___________
Maintenance Rep: __________________ Date: ___________
Project Engineering Rep: ____________ Date: ___________
Process Engineering Rep: ____________ Date: ___________
Integ. Mach. Inspect. Rep: ____________ Date: ___________
Environmental and Safety Rep: __________ Date: __________
Certified Boiler Inspector: ____________ Date: __________
Electrical Inspector: __________________ Date: __________
Utilities Rep: ______________________ Date: __________
Fire Dept. Rep: _____________________ Date: __________

Incomplete items showing owner and timetable for completion (attach additional pages as necessary):
1. 
2. 
3. 

I recommend this facility be placed in operation:
PSR Team Leader: ________________
Date: _______________________

Approved for operation:
Operating Division Manager: ________________
(or designate)
Date: _______________________

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PRESTART-UP REVIEW FOR MAINTENANCE SHUTDOWN – PAGE 3

Facilities __________________________
MOC Nos. __________________________
(Attach MOC log if necessary.)

The PSSR Team Leader (assigned by the Operating Division Manager) convenes a meeting of a PSSR Review Team prior to start up of the facilities covered by this PSSR. The Team Leader chooses team members based on their understanding of the work done during this shutdown. This team conducts a walkthrough, unless they judge it to be unnecessary. The team confirms the MOC process has captured all the changes made during this shutdown. All MOCs have been cleared for start-up and the facility is ready to start up. The team generates a list of incomplete items identifying item owner and timetable for completion. Representatives acknowledge (below) their organization’s work is complete (except as noted on the list below), that current QA programs were followed and that records will be retained for audit purposes. See Section 5.0 for other team member responsibilities.

Operating Unit Rep: __________________________ Date: ______________
• Determines all MOCs associated with this facility area approved for start-up.

Maintenance Shutdown Supervisor __________________________ Date: ______________
• Certifies that all planned and unplanned work required for start-up is complete, except as noted on the list below.
• Verifies that existing quality assurance programs (e.g., Positive Material Identification, Metal Craft Quality Assurance, VOC valves, loop checks) were followed.
• Puts maintenance checklists and records in files for audit purposes.

OTHER PSR REVIEW TEAM MEMBERS (include organization and name):
Examples of other organizational groups that may be included for shutdowns where they have significant input: Engineering, Fire Department, Utilities, Environmental and Safety, Integrated Machinery Inspection or Inspectors.

__________________________________________ __________________________
Organization Name and date

Operating Division Business Manager Responsibilities:
• Verifies that operating procedures are in place for this particular start-up
• Verifies that affected operating personnel are trained for this particular start-up
• Confirms start-up checklists (i.e., initialed start-up/prestart-up sections of Operating Procedures, and referenced checklists such as blind lists) will be completed and put in files for audit purposes.

Incomplete items showing owner and timetable for completion (attach additional pages as necessary):
1. __________________________________________
2. __________________________________________
3. __________________________________________
4. __________________________________________

I recommend this facility be placed in operation: __________________________
Approved for operation: __________________________
PSR Team Leader: __________________________ Date: ______________
Operating Division Manager: __________________________
(or designate) Date: ______________
Prestart-up Review Checklist

This checklist is required for all new stationary sources or modified stationary sources when the modification is significant enough to require a change in the process safety information. This checklist is necessary to ensure that all Process Safety Management and CalARP regulatory requirements are met. The prestart-up review (PSR) must be completed prior to the start-up of all new, modified or relocated equipment, machinery, plant, or facilities. The PSR coordinator is responsible for ensuring that the checklist is completed and that the checklist and copies of all supporting documentation are provided to the Health, Safety, and Environment Coordinator for filing.

MOC Number: _______________ (If the checklist is required for a turnaround, enter T/A)
Date: ______________________
Department: ______________________
Unit Area: ______________________
Project/Equipment Description: ________________________________________________________

Initial each upon completion

a. _____ Construction and equipment is in accordance with design specifications
b. _____ Safety, operating, maintenance, and emergency procedures are in place and are adequate
c. _____ For new stationary sources, a PHA has been performed and recommendations resolved
d. _____ For modified stationary sources, the requirements of the management of change (MOC) program have been met (e.g., Process Safety Information is updated accordingly)
e. _____ Training of all applicable operations, maintenance, and contract personnel has been completed
f. _____ A walkthrough of the unit was conducted by employee(s) with expertise in process operations and engineering, ensuring the following:
    ______ Temporary piping, hoses, connections, and utility connections are removed
    ______ Blinds are pulled
    ______ Drains are plugged
    ______ Low points are drained
    ______ PSVs are inspected
    ______ Pressure test

Construction Rep: ___________________________ Date: ______________________
Engineer Rep: ______________________________ Date: ______________________
Operations Area Manager Rep: __________________ Date: ______________________
PSR Coordinator: ____________________________ Date: ______________________
__________________________________________ Date: ______________________
__________________________________________ Date: ______________________
__________________________________________ Date: ______________________

Examples of other PSR team members who should sign off on the PSR are Boiler Inspectors, Electrical Inspectors, and Environmental and Safety Representatives.