

**North Carolina Department of Labor
Occupational Safety and Health**

Raleigh, NC

Field Information System

CPL 03-00-021

Subject: National Emphasis Program – Process Safety Management (PSM) Covered Facilities

A. **Discussion.**

This instruction describes a National Emphasis Program (NEP) for inspecting all facilities with highly hazardous chemicals in amounts at or above the threshold quantities listed in 29 CFR 1910.119.

B. **Action.**

The NC Department of Labor (NCDOL), Occupational Safety and Health (OSH) Division will not adopt those portions of this directive related to the training and experience qualifications for Programmed Quality Verification (PQV) team members and team leaders contained in section XI.C., Inspection Resources. Training and inspection experience competencies will continue to follow the OSH requirements for training of PQV team members and PQV team leaders as outlined in Operational Procedure Notice (OPN) 64 - Mandatory Training Program for OSH Compliance Personnel. In addition to meeting the training requirements, PQV team members may become team leaders after participating in a PQV inspection under the supervision of a qualified PQV team leader.

Additionally, the OSH Division will not adopt those portions of this directive related to inspection targeting procedures found in Section XI. A.2., Programmed Inspection Site Selection. PSM assignments will be generated through the targeting systems and through inspections associated with the Special Emphasis Program (SEP) for Food Manufacturing.

References to the Field Operations Manual, will mean the North Carolina Field Operations Manual (FOM). Where any inspection procedure discrepancies exist between this compliance directive and the FOM, Compliance Safety and Health Officers will follow the FOM. References to the Regional Administrator or other federal personnel will mean the appropriate OSH Division management person (district supervisor, bureau chief, assistant director or director), respectively. References to the Salt Lake City Technical Center will mean the NCDOL contract laboratory.

The Dynamic Lists of Questions, beginning on page 19, can be accessed on the Occupational Safety and Health Administration (OSHA) Extranet and are not public information. These questions will be used for the NEP inspections. The directive contains instructions on how and when these lists will be used and instructions regarding the specific questions that will be used from each list.

C. **Effective Date.**

This CPL cancels and replaces CPL 03-00-014 and is effective on the date of signature. It will remain in effect until revised or canceled by the director.

Signed on original

J Edgar Geddie
Health Standards Officer

Kevin Beauregard
OSH Director

7/17/17
Date



OSHA INSTRUCTION

U.S. DEPARTMENT OF
LABOR

Occupational Safety and Health Administration

DIRECTIVE NUMBER: CPL 03-00-021

EFFECTIVE DATE: 01/17/2017

SUBJECT: PSM Covered Chemical Facilities National Emphasis Program

ABSTRACT

- Purpose:** This instruction describes an OSHA National Emphasis Program (NEP) for inspecting facilities with highly hazardous chemicals (HHCs) in amounts at or greater than the threshold quantities listed in 29 CFR 1910.119.
- Scope:** This instruction applies OSHA-wide. Both programmed and unprogrammed inspections will take place in all OSHA Regions.
- References:** Federal Register, Volume 57, Number 36, pages 6355 to 6417 (including Preamble), February 24, 1992, Final Rule, Process Safety Management (PSM) of Highly Hazardous Chemicals, 29 CFR 1910.119; Explosives and Blasting Agents standard, 29 CFR 1910.109.
- 29 CFR 1910.106, Flammable and Combustible Liquids
- 29 CFR 1910.146, Permit-Required Confined Spaces
- 29 CFR 1910.147, The Control of Hazardous Energy (Lockout/Tagout)
- Cancellations:** CPL 03-00-014, PSM Covered Chemical Facilities National Emphasis Program, issued November 29, 2011.
- State Plan Impact:** Notice of Intent and Adoption required. See paragraph VIII.
- Action Offices:** National, regional, area, and State-Plan offices.
- Originating Office:** Directorate of Enforcement Programs (DEP).
- Contact:** Directorate of Enforcement Programs
200 Constitution Avenue, NW, Room 3107
Washington, DC 20210
Phone (202) 693-1850

By and Under the Authority of

David Michaels, PhD, MPH
Assistant Secretary

Executive Summary

This instruction provides guidance to the Occupational Safety and Health Administration's (OSHA's) national, regional, area, and State Plan offices for implementing and conducting an NEP to reduce or eliminate workplace hazards associated with the catastrophic release of highly hazardous chemicals at facilities, including petroleum refineries, covered by OSHA's Process Safety Management of Highly Hazardous Chemicals (PSM) standard, 29 CFR 1910.119. Both programmed and unprogrammed inspections associated with this NEP will begin immediately in all regions.

Significant Changes

This instruction describes an updated initiative by OSHA. Under the previous related instructions, OSHA conducted inspections of facilities covered by OSHA's PSM standard either through an instruction specific to petroleum refineries or an instruction related to all other PSM-covered chemical facilities excluding petroleum refineries. This instruction is applicable to all facilities, including petroleum refineries, covered by the PSM standard. NEP inspections conducted at petroleum refineries will be conducted in the same manner as NEP inspections conducted at all other facilities covered by this instruction.

The PSM-covered Chemical Facilities NEP (CHEM NEP) requires State Plan adoption.

Should area directors decide to expand a CHEM NEP inspection, inspection resource tools have been added to assist compliance safety and health officers (CSHOs).

Inspection targeting sources have been added to include the Environmental Protection Agency's Risk Management Plan (EPA RMP) Program Levels 1 and 2 processes. This instruction also clarifies that targeting of explosive manufacturing includes pyrotechnic manufacturing facilities.

Table of Contents

| | | |
|-------|---|----|
| I. | Purpose..... | 1 |
| II. | Scope..... | 1 |
| III. | References..... | 1 |
| IV. | Cancellations..... | 3 |
| V. | Significant Changes..... | 3 |
| VI. | Action Offices..... | 3 |
| VII. | Application..... | 3 |
| VIII. | State Plan Impact..... | 3 |
| IX. | Background..... | 4 |
| X. | Acronyms and Abbreviations..... | 6 |
| XI. | Program Procedures..... | 7 |
| | A. Programmed Inspection Site Selection..... | 7 |
| | 1. Targeting Sources..... | 7 |
| | 2. OSHA will use four sources for targeting:..... | 7 |
| | 3. Facility Identification and Master List Generation:..... | 7 |
| | 4. Inspection Scheduling..... | 10 |
| | B. Programmed and Unprogrammed Inspections..... | 11 |
| | 1. Programmed Inspections..... | 12 |
| | 2. Unprogrammed Inspections..... | 12 |
| | C. Inspection Resources..... | 13 |
| | 1. Inspection Team Personnel..... | 14 |
| | 2. Documentation of PSM Qualification Levels and Inspections..... | 17 |
| | 3. Utilization of Other OSHA Technical and Enforcement Resources..... | 17 |
| | 4. EPA RMP Facility Information..... | 18 |
| | 5. Industry Reference Material Availability..... | 19 |
| | D. Inspection Process..... | 19 |
| | 1. NEP Inspection Process Differs from PSM CPL PQV Process..... | 19 |
| | 2. Emphasis on Implementation over Documentation..... | 19 |
| | 3. Dynamic List Questions..... | 19 |
| | 4. Expanding the Inspection..... | 20 |
| | 5. Inspect Both Host and Contract Employers..... | 21 |
| | 6. Review Inspection History and Abatement..... | 21 |
| | E. Inspection Procedures..... | 22 |
| | 1. Supplemented FOM Procedures..... | 22 |
| | 2. Opening Conference..... | 22 |
| | 3. Documentation to be Requested -- General and Process-Related..... | 24 |
| | 4. PSM Overview..... | 26 |
| | 5. Personal Protective Equipment (PPE) and Camera/Video Use..... | 26 |
| | 6. Initial Walkaround..... | 27 |
| | 7. Selection of Unit..... | 28 |
| | 8. Inspection of Contractors and Temporary Workers..... | 29 |
| | 9. Compliance Guidelines..... | 30 |
| | 10. Review Inspection History and Abatement..... | 31 |

| | |
|----------------------------|---------|
| 11. Citations..... | 31 |
| F. Program Evaluation..... | 31 |
| G. Outreach..... | 32 |
| I. Consultation..... | 33 |
| Appendix A..... | A-1 |
| INDEX..... | Index-1 |

I. Purpose.

This instruction describes an OSHA National Emphasis Program (NEP) for inspecting facilities with highly hazardous chemicals (HHCs) in amounts at or greater than the threshold quantities listed in 29 CFR 1910.119.

Programmed¹ inspections will be conducted in facilities that are known to or believed to have a risk of catastrophic releases of HHCs. Unprogrammed² inspections will take place in PSM-covered facilities as described in this instruction.

II. Scope.

This notice applies OSHA-wide.

III. References.

- A. [Federal Register, Volume 57, Number 36](#), pages 6355 to 6417 (including [Preamble](#)), February 24, 1992, *Final Rule, Process Safety Management (PSM) of Highly Hazardous Chemicals, 29 CFR 1910.119; Explosives and Blasting Agents standard, 29 CFR 1910.109.*
- B. [CPL 02-02-045 \(Revised\) - Process Safety Management of Highly Hazardous Chemicals -- Compliance Guidelines and Enforcement Procedures, September 13, 1994.](#)
- C. [29 CFR 1910.106, Flammable and Combustible Liquids](#)
- D. [29 CFR 1910.146, Permit-Required Confined Spaces](#)
- E. [29 CFR 1910.147, The Control of Hazardous Energy \(Lockout/Tagout\)](#)
- F. [29 CFR 1910, Subpart I, Personal Protective Equipment](#)
- G. [29 CFR 1910.307, Hazardous \(Classified\) Locations](#)
- H. [OSHA Instruction CPL 02-00-160, Field Operations Manual \(FOM\)](#), August 2, 2016.
- I. [OSHA Instruction ADM 03-01-005, OSHA Compliance Records](#), August 3, 1998.

1 Programmed inspections are defined in CPL 02-00-160 *Field Operations Manual* as “inspections of worksites which have been scheduled based upon objective or neutral selection criteria.”

2 Unprogrammed inspections are defined in CPL 02-00-160 *Field Operations Manual* as “inspections scheduled in response to alleged hazardous working conditions that have been identified at a specific worksite.”

- J. [CPL 02-00-025 -- CPL 2.25I -- Scheduling System for Programmed Inspections](#), January 4, 1995.
- K. Regional Administrators Memorandum: [Establishment-Targeting Lists for Emphasis Programs](#), OSHA, November 12, 2014.
- L. [OSHA Instruction ADM 04-00-001, OSHA Safety and Health Management System](#), May 23, 2011.
- M. [OSHA Instruction CPL 02-01-037 \(CPL 2-1.037\), Compliance Policy for Emergency Action Plans and Fire Prevention Plans](#), July 9, 2002.
- N. [OSHA Instruction CPL 02-00-094 \(CPL 2.94\), OSHA Response to Significant Events of Potentially Catastrophic Consequences](#), July 22, 1991.
- O. [OSHA PSM Safety and Health Topics Index webpage](#).
- P. [Accidental Release Prevention Requirements -- Risk Management Programs Under the Clean Air Act](#), U.S. Environmental Protection Agency's (EPA) standard, 40 CFR Part 68, Chemical Accident Prevention Provisions.
- Q. [Guidance for Facilities on Risk Management Programs \(RMP\)](#), U.S. Environmental Protection Agency (EPA).
- R. OSHA Instruction CPL 02-00-051, *Enforcement Exemptions and Limitations Under the Appropriations Act*, [Most Current Version](#)
- S. Chemical NEP Dynamic Lists, [PSM OSHApedia Intranet web-site](#).
- T. [OSHA Instruction CPL 03-00-010, Petroleum Refinery Process Safety Management National Emphasis Program](#), August 18, 2009.
- U. [Appendix A - Static List of Inspection Priority Items \(IPI\): Petroleum Refinery Process Safety Management National Emphasis Program](#), CPL 03-00-010.
- V. [CPL 02-02-045 \(Revised\) -- Process Safety Management of Highly Hazardous Chemicals -- Compliance Guidelines and Enforcement Procedures](#) -- Appendix A – PSM Audit Guidelines.
- W. [Guidelines for Hazard Evaluation Procedures \(3rd Edition\)](#), Appendix B -- *Supplemental Questions for Hazard Identification*; American Institute of Chemical Engineers -- Center for Chemical Process Safety.

IV. Cancellations.

CPL 03-00-014, *PSM Covered Chemical Facilities National Emphasis Program*, issued November 29, 2011.

V. Significant Changes.

This instruction describes an updated initiative by OSHA. Under the previous related instructions, OSHA conducted inspections of facilities covered by OSHA's PSM standard either through an instruction specific to petroleum refineries³ or an instruction related to all other PSM-covered chemical facilities excluding petroleum refineries.⁴ This instruction is applicable to all PSM-covered facilities, including petroleum refineries.

This instruction requires State Plan adoption.

NEP inspections conducted at petroleum refineries will be conducted in the same manner as NEP inspections conducted at all other facilities covered by this instruction.

Should area directors decide to expand a *PSM-Covered Chemical Facilities National Emphasis Program* (CHEM NEP) inspection, inspection resource tools have been added to assist CSHOs.

Inspection targeting sources have been added to include EPA RMP Program 1 and Program 2 processes. This instruction also clarifies that targeting explosive manufacturing includes pyrotechnic manufacturing facilities.

VI. Action Offices.

National, regional, area, and State Plan offices.

VII. Application.

OSHA compliance officers should follow the procedures contained in this notice when inspecting the facilities selected under this NEP.

VIII. State Plan Impact.

This instruction is notice of intent and adoption required and describes an NEP for inspecting facilities with PSM-covered processes. Because the seriousness and prevalence of the hazards addressed are nationwide, State Plan states are required to

3 CPL 03-00-010, *Petroleum Refinery Process Safety Management National Emphasis Program*, OSHA, August 18, 2009

4 CPL 03-00-014, *PSM Covered Chemical Facilities National Emphasis Program*, OSHA, November 29, 2011

participate in this emphasis program. All such inspections and related compliance assistance activity should be coded CHEMNEP as directed in paragraph XI.H.

State Plan states are required to notify OSHA within 60 days whether the State Plan's emphasis program will be identical to or different from the Federal program. If a State Plan is already implementing an emphasis program in this area, or if it adopts an initiative in response to this Federal program change, its implementing policies and procedures are expected to be at least as effective as those in this instruction.

If a State Plan adopts or maintains an emphasis program on PSM-covered facilities which differs from the Federal program, the State Plan must identify the differences and may either post its different procedures on its State Plan website and provide a link to OSHA, or provide an electronic copy to OSHA with contact information on how the public may obtain a copy. State Plan adoption, either identical or different, must be accomplished within 6 months. Documentation of State Plan adoption, and the date of adoption, must be submitted to OSHA within 60 days of adoption. OSHA will provide summary information on the State Plan responses to this instruction on OSHA's website.

OSHA's Office of Statistical Analysis will work with the State Plans to provide the data necessary to develop targeting lists in accordance with the instructions in section XI.A.

OSHA will make the dynamic list(s) of questions available to the State Plans. State Plans must code any inspections (programmed or unprogrammed) and related compliance assistance activity conducted under this NEP as directed in Section XI.H. States using the procedures in this instruction are asked to deliver the feedback set out in section XI.F to DEP through their regional offices to assist OSHA in evaluating this program.

IX. Background.

OSHA promulgated the PSM standard in 1992 in response to a number of catastrophic incidents that occurred worldwide.⁵ These incidents spurred broad recognition that handling HHCs could lead to incidents that may occur infrequently but, due to their catastrophic nature, often result in multiple injuries and fatalities.

On September 28, 1992, OSHA issued instruction [CPL 02-02-045 \(Revised\)](#), Process Safety Management of Highly Hazardous Chemicals – Compliance Guidelines and Enforcement Procedures. CPL 02-02-045 established policies, procedures, clarifications, and compliance guidance for enforcement of the PSM standard. The instruction acknowledged that Program Quality Verification (PQV) inspections were resource intensive and, therefore, OSHA would perform only a limited number each year. Consequently, very few PQV inspections have been conducted since OSHA issued CPL 02-02-045.

⁵ Process Safety Management of Highly Hazardous Chemicals, 29 CFR 1910.119, [Preamble: Section 1 – I. Background](#)

OSHA implemented a PSM NEP for petroleum refineries in June 2007 and an update in August 2009 ([Refinery NEP](#)). This NEP resulted in the inspection of all eligible [i.e., non-Voluntary Protection Program (VPP)] petroleum refineries in OSHA's Federal jurisdiction. Utilizing the refinery NEP inspection program, OSHA identified a significant number of hazards that required abatement by employers. OSHA found that the inspection methodology specified by the Refinery NEP required significant resources for each inspection conducted. The Refinery NEP ended in 2011 in areas under Federal jurisdiction.

In July 2009, OSHA implemented a pilot NEP for PSM-covered chemical facilities. The pilot outlined a modified approach for inspecting PSM-covered facilities that allowed for a greater number of inspections by better allocation of OSHA resources. The pilot proved to be effective in increasing the number of PSM facilities inspected while at the same time limiting the resources required for each inspection.

After a review of the pilot NEP, OSHA implemented the CHEM NEP in November 2011. This NEP applied to all non-VPP PSM-covered processes, except for petroleum refineries. Like the pilot, it employed an inspection methodology that better allocated resources, thereby allowing for a greater number of inspections.

OSHA has continued to find a substantial number of hazards at facilities that are inspected under the CHEM NEP. Since 2010, the Agency has issued 69 significant enforcement cases to chemical facility employers inspected under the CHEM NEP. During the same period, OSHA issued 24 significant enforcement cases to petroleum refinery employers. Petroleum refineries also have experienced numerous fatal and/or catastrophic process-related incidents since 2010, including the following cases:

- A heat exchanger catastrophically ruptured, which caused an explosion and fire killing seven workers.
- A crew was realigning pumps due to a pump seal leak in an isomerization unit when flammable materials were released, formed a vapor cloud and ignited. The fire killed one worker and hospitalized three with burn injuries.
- An explosion and fire killed one worker attempting to light a process heater at a catalytic cracking unit.
- A fire killed one worker and injured four when a heat exchanger in a catalytic desulfurization unit released hydrocarbons.
- A sight glass failed in a hydrofluoric acid alkylation unit resulting in a hydrofluoric acid release that killed one worker.

- An explosion killed two workers attempting to light a boiler at a fluid catalytic cracking unit.
- Ignition of a release of flammable materials killed one contract worker attempting to install a blind flange on a knockout drum.
- Flammable materials draining from a tank to a drainage system ignited hospitalizing four workers with burns.
- An eight-inch-diameter pipe catastrophically ruptured, releasing flammable, high-temperature light gas oil, which then formed a large vapor cloud that ignited. The ensuing explosion and fire caused minor injuries to six workers and hospitalized approximately 20 residents of the community near the refinery.
- A worker died from an acute hydrogen sulfide exposure while attempting to seal a leak at a Reformer Unit.
- A contract worker performing fire watch duties died from hydrogen sulfide exposure when a release occurred during “shutdown” maintenance on a catalytic cracking unit.

Based on the enforcement data, feedback from OSHA personnel and the continuation of a large number of significant petroleum refinery incidents in the U.S., OSHA has issued this instruction that outlines a modified CHEM NEP that will include petroleum refineries and will be launched OSHA-wide.

X. Acronyms and Abbreviations.

AD – Area Director (OSHA)

AO – Area Office (OSHA)

CHEM NEP or NEP -- PSM Covered Chemical Facilities National Emphasis Program

CSHO – Compliance Safety and Health Officer

DEP – Directorate of Enforcement Programs (OSHA National Office)

DSG – Directorate of Standards and Guidance (OSHA National Office)

DTE – Directorate of Training and Education (OSHA National Office)

DTSEM -- Directorate of Technical Support and Emergency Management (OSHA National Office)

EPA -- U.S. Environmental Protection Agency

FOM – Field Operations Manual

HAZWOPER – Hazardous Waste Operations and Emergency Response

HHC – Highly Hazardous Chemical

LEL – Lower Explosive Limit

OSA – Office of Statistical Analysis (OSHA National Office - Directorate of Technical Support and Emergency Management)

OCPSEI – Office of Chemical Process Safety and Enforcement Initiatives (OSHA National Office - Directorate of Enforcement Programs)
OTI - OSHA Training Institute (OSHA National Office - Directorate of Training and Education)
NAICS – North American Industrial Classification System
NEP – National Emphasis Program
NO – National Office (OSHA)
RA – Regional Administrator (OSHA)
RMP – Risk Management Plans (U.S. EPA)
RO – Regional Office (OSHA)

XI. Program Procedures.

A. Programmed Inspection Site Selection.

1. Targeting Sources.

2. OSHA will use four sources for targeting:

- a. EPA Chemical Accident Prevention Provisions, Program 1, Program 2 and Program 3 RMP operator/employer submittals;
- b. Explosives and pyrotechnics manufacturing NAICS codes;
- c. OSHA’s Integrated Management Information System (IMIS) and OSHA’s Information System (OIS) databases for establishments with prior OSHA PSM citations; and
- d. OSHA Area Office knowledge of local facilities.

3. Facility Identification and Master List Generation:

- a. Facility identification and master targeting list generation will follow the regional administrators memorandum - [*Establishment-Targeting Lists for Emphasis Programs*](#), (See [PSM OSHApedia](#) Intranet Web site), where not otherwise addressed below.
- b. OSHA’s NO will use the following procedure to create the National PSM Covered Chemical/Refining Targeting List:
 - DEP will obtain a list of facilities that submitted EPA Program 1, Program 2, and 3 RMPs;
 - OSA will provide DEP with a list of facilities identified in the IMIS or OIS databases as having been previously cited under PSM

with an issuance date between January 1, 2000 through September 30, 2015;

- OSA will provide DEP with a list of facilities with NAICS and/or SIC codes identified as explosives and pyrotechnics manufacturing;
 - To identify petroleum refining facilities DEP will use:
 - the RMP Program 1, Program 2, and Program 3 list;
 - the OSA list;
 - the Department of Energy’s Energy Information Administration’s list; and
 - DEP’s list of refineries from the Refinery NEP.
- c. DEP will combine these lists and sort them into five lists:
- Category 1 – Facilities with NAICS Codes likely to have ammonia used for refrigeration as the only HHC;
 - Category 2 – NAICS 32411 or 324110, Petroleum Refineries;
 - Category 3 – NAICS 325, Chemical Manufacturing;
 - Category 4 - NAICS Codes for facilities that are likely PSM covered but not Category 1, Category 2, or Category 3.
- d. OSA will provide each region with an **initial** master list for their jurisdiction. Based on their familiarity with local facilities, regional offices (or at the discretion of the RO, this list can be compiled by the AO) shall:
- Add any facility that is not on the national list, but are known by the RO/AO to operate in their jurisdiction, and are known as likely to be PSM-covered.

Regional offices should note that because EPA’s RMP and OSHA’s PSM cover different chemicals, the national list may be missing PSM covered facilities – particularly those that use flammable liquids. Therefore, regional or area offices should add any listed facility that based on local knowledge is likely to be PSM-covered.

- Mark for deletion any facility that is known to be out of business, documenting the basis for such determinations;
 - Mark for deletion any facility that is an approved participant in OSHA's VPP or OSHA Consultation's Safety and Health Achievement Recognition Program (SHARP); and
 - Mark for deletion any facility that has already received an inspection under the CHEM NEP in the last three years since the opening conference date of the last inspection. Include the inspection number and opening conference date of the prior inspection.
- e. Regional offices will return the revised list to OSA for final processing. For each establishment added or deleted, the RO must document the source and reason for the addition or deletion.
- f. The NO will provide the regions with four **final** master lists (one for each category) by area office jurisdiction in random number order. The NO will also provide the regions with the required number of inspections for each category at the regional level.

The regions will be responsible for distributing the required number of assignments for each category amongst its area offices. The area offices will select the establishments from the master lists in the random number order provided.

For example, if Region 4 is required to complete 10 Category 1 inspections, it may assign 2 to Area Office A, 3 to Area Office B, 3 to Area Office C, and 2 to Area Office D. Area Office A will inspect the first two establishments from its Category 1 list; Area Office B will inspect the first three establishments from its Category 1 list; Area Office C will inspect the first three establishments from its Category 1 list and Area Office D will inspect the first 2 establishments from its Category 1 list.

After the final master lists are provided to the regions, if it is later discovered that a facility is not categorized correctly (e.g., during the opening conference it is determined that a facility that was listed on the final master list as Category 3 when it is actually a Category 4 facility), then the inspection will proceed as if the facility was correctly identified.

- g. The regional office must retain the lists for three years after the completion of all inspections conducted under this instruction. (See

OSHA Instruction *OSHA Compliance Records*, [ADM 03-01-005](#).)

Note: the RO may choose to have the lists maintained and retained by the AO at their discretion.

- h. The NO will provide the region with updated master lists upon request, but not more frequently than on an annual basis.

4. Inspection Scheduling.

- a. Regions will initiate programmed inspections upon the effective date of this instruction.
- b. The [PSM OSHApedia](#) Intranet Web site, [Number of CHEM NEP Programmed Inspections to be Completed by Each Area Office](#) lists the number of programmed inspections each region/AO should complete per year using this instruction.

Another [PSM OSHApedia](#) Intranet Web site, [Distribution of Programmed Federal Refinery Inspections by Region](#) lists OSHA's goal for the total number of programmed refinery inspections per year; the number and percentage of refineries by region; and the number of programmed petroleum refinery inspections that are expected to be conducted annually in each region.

When regions allocate inspection assignments to their area offices as discussed below, the number of programmed inspections at petroleum refineries must be met based on the [Distribution of Programmed Federal Refinery Inspections by Region](#).

- c. The NO will compile and randomize the final master lists. To ensure that inspections are appropriately allocated across all hazardous processes, programmed inspections will be apportioned to five categories as listed below:
 - Category 1 - approximately 25 percent of the total programmed inspections;
 - Category 2 - the Agency's annual national goal is set in section XI.A.3.b above. The national goal will be allocated across regions by the percentage of U.S. refineries located in each region.

For example, given a national annual goal of 30 refinery inspections conducted under this instruction, Region 5 would be expected to conduct 3 programmed petroleum refinery CHEM NEP inspections [30 (example national goal of total targeted

programmed refinery inspections in U.S.) times 0.10 (Region 5 percentage of total U.S. refineries) = 3 targeted programmed refinery inspections in Region 5].

Note, when regions allocate inspection assignments to their area offices as discussed below, the number of programmed inspections at petroleum refineries must be met based on the PSM OSHApedia, [Distribution of Programmed Federal Refinery Inspections by Region](#).

- Category 3 Master List programmed inspections - approximately 45 percent of the total programmed inspections; and
- Category 4 Master List programmed inspections - approximately 30 percent of the total programmed inspections.

The number of required inspections under this instruction is set at the regional level (see section XI.A.3.b above). The RO will allocate assignments to their area offices to meet their required annual number of inspections per the target category percentages. The region will base the allocation on available resources at the AO level.

Once an AO is assigned the number of inspections to be completed, the AO **must** select and inspect establishments in the random order provided on their final master lists.

However, the [Establishment-Targeting Lists for Emphasis Programs](#), regional administrators memorandum allows the AO options for scheduling inspections. One of the options, for example, is the AO may select the first three establishments on the master list, sorted by ascending random number as a first cycle of three establishments. The AO can then inspect those three establishments in any order, but must finish the cycle prior to beginning a second cycle. Once the first cycle is complete, the area office can inspect the next three establishments on the randomized master list as its second cycle.

If an AO has not completed inspecting all the facilities on its master lists from the prior CHEM NEP instruction, the AO will discontinue any further inspections scheduled from the prior instruction and use the final master lists that have been developed for the update to this instruction.

B. Programmed and Unprogrammed Inspections.

1. Programmed Inspections.

Programmed inspections will be initiated using this instruction. Some establishments with PSM-covered processes may also be selected for inspection based on instructions provided in other national emphasis programs/local emphasis programs.

2. Unprogrammed Inspections.

The following guidelines should be used for all unprogrammed inspection activities related to PSM-covered processes nationwide:

a. Complaint or referral. If a complaint or referral is received relating to a PSM-covered process and it:

- *Involves an application of the PSM standard* -- the AD shall evaluate the complaint or referral item(s) according to the [FOM](#) and conduct an inspection using this instruction.

If the complaint or referral item(s) are initiated due to a complaint or referral related to a contractor employer, inspections of both the contractor and host employer should be conducted. Normally, the inspection should be limited to the complaint and referral item(s)/subject(s) and the CHEM NEP dynamic list contractor questions.

- *Does not involve an application of the PSM standard (for example, there is a complaint about fall protection hazards in a PSM-covered process)* - the inspection or inquiry will normally be limited to the complaint and referral item(s)/subject(s). However, if the facility has not already been inspected using this instruction, a concurrent inspection using this NEP may be conducted at the AD's discretion.

b. Accidents and Catastrophes. In addition to this instruction's guidelines, responses to accidents and catastrophes in facilities with PSM-covered processes should follow the guidelines contained in the [FOM](#), and where appropriate, OSHA Instruction [CPL 02-00-094, OSHA Response to Significant Events of Potentially Catastrophic Consequences](#) .

When an accident or catastrophe occurs in a facility that contains a PSM-covered process, and it:

- *Involves an application of the PSM standard* – the inspection will include the accident investigation item(s)/subject(s) and a CHEM NEP inspection using this instruction.
- *Does not involve an application of the PSM standard* - the inspection will normally be limited to the accident investigation item(s)/subject(s). However, if the facility has not already been inspected using this instruction, a concurrent Chemical NEP inspection using this instruction may be conducted at the AD’s discretion.

VPP sites are subject to CHEM NEP inspections that are initiated by an unprogrammed activity.

C. Inspection Resources.

Appropriate levels of staff experience, training and preparation are essential for compliance activities relating to the PSM standard. Inspections using this NEP may be conducted by either a single OSHA employee or a team. At least one member of the team or the OSHA employee must be qualified to Level 1 as described below (*i.e.*, if a single OSHA employee conducts a CHEM NEP inspection they should be qualified to Level 1). For inspections of Category 1 – Facilities that use only ammonia for refrigeration, Level 1 requirements are specified under Ammonia Refrigeration Level 1.

Notes on training and PSM inspection experience:

- The overall goal for completing the entire three course sequence of OTI PSM courses is that the student will be able to lead a team of compliance officers to perform process safety management inspections at facilities covered by the PSM standard.
- However, training alone will not be the basis of a competent PSM team leader. Experience is also important for any PSM team member, including the team leader. Therefore, competencies are listed below that include both training and experience for the three different levels of OSHA staff that will participate on OSHA PSM inspection teams.
- The descriptions of the three current PSM classes, OTI 3300, 3400, and 3430 can be found on the PSM OSHApedia Web site - [OTI PSM Course Descriptions.](#)
- It is important for CSHO development that the required prerequisites (e.g., conducting the minimum number of inspections) are adhered to before enrolling in any of the OTI PSM classes. This is especially important for those CSHOs that have minimal experience in either working in or

inspecting PSM or other chemical facilities.

- Because of the progressive nature of the PSM course materials, the OTI PSM courses should not be taken out-of-sequence (i.e., the course prerequisites should be followed).
- It is recommended that the six OSHA PSM inspection criteria required prior to becoming a Level 1 be divided such that 3 inspections are conducted before, and 3 inspections are conducted after Level 2 qualification is attained. See PSM OSHPedia – [PSM Competencies Model](#) for more information.
- Grandfathered Level 1. All current Level 1 qualified OSHA personnel who have led a PSM inspection prior to the publication of this instruction are not required to meet the six PSM inspection experience criteria. Conversely, if OSHA personnel are not qualified Level 1 prior to the publication of this instruction, they must meet the training and six PSM inspection criteria as specified.
- Since each PSM inspections vary greatly in terms of the experience a CSHO might gain from an inspection, the RO and/or AD should determine if the individual inspections a CSHO participates in qualify as inspections that count toward each perspective Level 1, six PSM inspection criteria. The RO and/or AD should consider factors such as the amount of time the CSHO participated on the PSM inspection, the complexity of the inspection (e.g. refinery inspection versus PSM-covered warehouse), the PSM elements to which the CSHO was exposed during their inspection, etc. See [X.I.C.2](#), below for further information on documenting qualified inspections.
- NO recommends that even individuals that come to OSHA with extensive PSM/chemical processing/safety experience take the OTI PSM courses to learn OSHA procedures and perspectives regarding PSM inspections.
- Due to a significant change in course content, completion of Course 330 prior to Fiscal Year 1991 does not meet this requirement for Level 1 training.

1. Inspection Team Personnel.

Persons meeting the Level 1 competencies below may lead OSHA PSM inspections under this instruction.

A Level 1 team member may evaluate compliance of all elements of the PSM standard

a. Inspections of Ammonia Refrigeration Processes Only -- Level 1

OSHA personnel may be assigned as Level 1 team members under this instruction for inspections of ammonia refrigeration facilities, if:

- They have completed OSHA Training Institute's (OTI) Course 3300, *Safety and Health in the Chemical Processing Industries*, Course 3400, *Hazard Analysis in the Chemical Processing Industries*;
- They have completed advanced training such as OTI Course 3410, *Advanced Process Safety Management*, OTI Course 3430, *Advanced PSM in the Chemical Industries*, **or** a specialized course on ammonia refrigeration; and
- They have participated in at least six OSHA PSM inspections, at least two of which are related to ammonia refrigeration processes.

b. Level 1 (All Other PSM-Covered Processes Excluding Ammonia Refrigeration)

OSHA personnel may be assigned as Level 1 team members under this instruction, if they meet the following criteria:

- They have completed OTI Courses:
 - 3300, *Safety and Health in the Chemical Processing Industries*,
 - Course 3400, *Hazard Analysis in the Chemical Processing Industries*, and
 - advanced training, including either OTI Course 3430, *Advanced PSM in the Chemical Industries* or Course 3410, *Advanced Process Safety Management*; and
- They have participated in at least six OSHA PSM inspections.

c. Level 2.

OSHA personnel who do not have the training and experience to

qualify as Level 1 may be assigned to an inspection team under this instruction, in the following circumstances:

- Level 2 team members must be under the direction of a Level 1 team leader.
- Level 2 team members may evaluate compliance with all elements of the PSM standard.

OSHA personnel may be assigned as a Level 2 inspection team member under this instruction, if:

- They have completed OTI Course 3300, *Safety and Health in the Chemical Processing Industries* and OTI Course 3400 *Hazard Analysis in the Chemical Processing Industries*, **and**
- They have participated in at least three OSHA PSM inspections.

d. Level 3.

OSHA personnel who do not have the training and experience to qualify as Level 1 or 2 may be assigned to an inspection team under this instruction, in the following circumstances:

- Level 3 team members must be under the direction of a Level 1 or 2 team member.
- Level 3 team members experienced in evaluating other programmatic standards (such as hazard communication, lockout/tagout, confined space entry, and respiratory protection programs) may evaluate compliance with programmatic sections of the PSM standard.

- Level 3 team members may evaluate compliance with the following elements of the PSM standard:

(c) Employee participation

(g) Training

(h) Contractors

(k) Hot work permits

(n) Emergency planning and response, if the CSHO has attended OSHA Course 3315 EPA's Health and Safety – (HAZWOPER), OSHA Course 3380, Enhanced 40-Hour Health and Safety Course for CSHOs, or an equivalent 40-hour HAZWOPER training course.

Note: Some team members may possess specialized expertise, extensive industry experience working in a PSM-covered manufacturing facility (chemical, petrochemical, refining) in a process engineering, operations, safety, or maintenance position, or have many years of PSM/chemical facility inspection experience and may be able to provide valuable technical advice to other members of the team. Unless these experts (OSHA and other individuals from outside the Agency) meet the competency requirements for Level 1 or 2 of this instruction, they may participate as Level 3 Team members and are allowed to advise the inspection team on all matters related to PSM.

2. Documentation of PSM Qualification Levels and Inspections.

ROs will determine, document, and annually at the end of each fiscal year provide to DEP-OCPSEI the PSM qualification level and number of qualified inspections for each CSHO conducting PSM inspections based on the options listed above. DEP-OCPSEI will keep this information in a central file. Once a CSHO has attained Level 1 qualification, there is no need to report their qualified inspection experience.

3. Utilization of Other OSHA Technical and Enforcement Resources.

CSHOs and other inspection team members should fully utilize RO and NO (DEP, DSG, and DTSEM) technical and enforcement support resources when making decisions about compliance or noncompliance.

AOs may include technical experts from the Health Response Team (HRT) in OSHA's Salt Lake City Technical Center (SLTC) as circumstances warrant. The HRT has expertise in areas of industrial hygiene, chemical, biological, radiation, toxicology, equipment failure and engineering inspection support.

Sometimes major chemical incidents include collapsed or unstable structures. The HRT coordinates the Specialized Response Team (SRT) that includes

experts in collapsed structures that may assist OSHA on-site teams during the early phases of investigations.

When requesting outside resources to assist in inspections, early involvement of these resources is most effective.

4. EPA RMP Facility Information.

EPA's RMP rule requires operators (employers) with an RMP-covered process to develop and submit an RMP to EPA. EPA in turn posts this information to its access-limited *RMP Info* database through its [EPA Central Data Exchange](#). CSHOs are encouraged to access this information prior to opening a programmed inspection, and early in the inspection process for unprogrammed inspections. OSHA and State Plan personnel may gain access to EPA's *RMP Info* database. To gain access to *RMP Info*, follow the instructions contained in the PSM OSHApedia Intranet Web site, [Instructions for Obtaining Access to EPA's RMP Info Database](#).

As most RMP facilities are also covered by OSHA's PSM standard, the specific site's *RMP Info* is a resource that can be helpful for PSM inspections. For instance, *RMP Info* data can be used by CSHOs to determine:

- Whether employers consider themselves to have either an RMP or PSM-covered process (Note: there is a specific element of *RMP Info* that requires operators to state whether their process is covered by PSM);
- Which RMP covered chemicals and quantities are on-site;
- The RMP Program Level the operator assigns and reports, which can give insight into whether the process is PSM-covered or if the operator claims a PSM exemption;
- If there have been any incidents that were required to be reported to the RMP accident database;
- Existing prevention and mitigation measures as reported by the operator; and
- Off-site consequence analysis (OCA) data required of operators (employers) to analyze their RMP-covered process worst-case and alternate case release scenarios of covered chemicals. (Note, OCA data can provide information about potential worker exposures during releases).

To assist in the coordination of enforcement inspections, regional PSM coordinators may contact their local EPA RMP coordinators to share inspection information/results.

5. Industry Reference Material Availability.

In addition to the list of documents found in Appendix D of [CPL 02-02-045 \(Revised\)](#), OSHA's [PSM Safety and Health Topics Web site](#) lists documents that will be useful for PSM inspections. Furthermore, a list of [References for Chemical and Process Safety](#) is provided on the [PSM OSHApedia Intranet Web site](#). ROs should consult their [Regional PSM Coordinators](#) to identify which industry documents are necessary to support their enforcement activities.

Each RO library should have industry reference documents accessible for CSHOs to use during the inspection. AO jurisdictions that conduct a large number of PSM inspections should have industry reference documents in their own libraries. CSHOs may also access documents available online through [OSHA's Technical Data Center Web site](#). From this site, CSHOs may access applicable [chemical/process safety electronic books](#), [consensus standards](#), [recommended practices](#), [other industry documents](#), and other relevant materials.

D. Inspection Process.

1. NEP Inspection Process Differs from PSM CPL PQV Process.

This NEP differs from the program-quality-verification (PQV) approach in PSM [CPL 02-02-045 \(Revised\)](#). Inspections conducted using the PQV approach were broad and open-ended, while inspections using this instruction rely on specific investigative questions. The investigative questions are designed to gather facts related to requirements of the PSM standard, and include guidance for reviewing documents, interviewing workers, and verifying full implementation.

2. Emphasis on Implementation over Documentation.

Based on inspection history at refineries and large chemical plants, OSHA has found that employers may have an extensive written process safety management program, but insufficient program implementation. Therefore, CSHOs should verify the implementation of PSM elements to ensure that the employer's actual program is consistent with the written program.

3. Dynamic List Questions.

CSHOs will select one or more units and use a dynamic list(s) of questions (referred to in this document as the Dynamic List) to evaluate PSM compliance.

- a. DEP develops Dynamic Lists for CSHOs to use during CHEM NEP inspections. These lists ([Chemical NEP Dynamic List of Questions](#)) are periodically updated by DEP and are published to the [PSM OSHApedia Intranet Web site](#).
- b. For inspection integrity purposes, OSHA will not publicly disclose the [Dynamic Lists](#). The dynamic lists will only be posted on OSHA's [PSM OSHApedia Intranet Web site](#). CSHOs should download and use the dynamic list(s) denoted as "Effective" at the time of the opening conference. For inspection preparation purposes, DEP will post the dynamic list(s) approximately seven days before they become effective.

Example: If: (1) the most recent dynamic list posted on the [PSM OSHApedia Intranet Web site](#) has an "Effective Date" of April 17, 2016; (2) the previous Dynamic List has an "Effective Date" of August 1, 2015; and (3) the opening date of the current inspection is April 15, 2016, then the CSHOs will use the August 1, 2015 Dynamic List for the inspection. Reason - the opening date of the current inspection is before the "Effective Date" of the August 17, 2016 Dynamic List.

Note: Contact DEP if you have difficulty downloading the Dynamic Lists.

- c. CSHOs should use the PSM OSHApedia Intranet Web site, [CSHO Instructions for the Dynamic Lists](#), to determine the dynamic list questions that they should use to evaluate compliance. This site gives CSHOs information on how to determine the appropriate number and type of dynamic list questions to evaluate based on the nature of the process being inspected.

4. Expanding the Inspection.

If, during the compliance evaluation, CSHOs determine that: (1) PSM deficiencies may exist outside the selected unit(s) or dynamic list questions, or (2) the number of deficiencies identified through the dynamic list evaluation process is substantial, the inspection may be expanded after consultation with the AD. CSHOs should document the basis for this determination.

CSHOs may address obvious and other plain view hazardous conditions without requesting an expansion of the inspection. The intent of this

provision is to limit the inspection by not requiring a team leader or CSHO to expand an inspection for every obvious and plain view hazardous condition that they identify. CSHOs should document how they determined the existence of these hazardous conditions.

CSHOs may expand CHEM NEP inspections after consultation and at the discretion of the AD. If a CHEM NEP inspection is expanded, CSHOs may use, but are not limited to, the following applicable resources to assist them in their inspections:

- Prior Chemical NEP Dynamic Lists of Questions (see PSM OSHApedia Intranet Web site - [2.1.3.1 Prior CHEM NEP Dynamic Lists](#));
- [Appendix A -- Static List of Inspection Priority Items \(IPI\)](#) contained in [OSHA Instruction CPL 03-00-010 -- Petroleum Refinery Process Safety Management National Emphasis Program](#) or any of its *Refinery NEP Dynamic Inspection Priority Item (IPI) -- Primary and Secondary Lists* (see PSM OSHApedia Intranet Web site - [2.1.3.2 Prior Refinery NEP Dynamic - Primary and Secondary Lists](#));
- *Appendix A – PSM Audit Guidelines* contained in [CPL 02-02-045 \(Revised\) -- Process Safety Management of Highly Hazardous Chemicals -- Compliance Guidelines and Enforcement Procedures](#);
- *Appendix B -- Supplemental Questions for Hazard Identification* contained in [Guidelines for Hazard Evaluation Procedures \(Third Edition\)](#), AIChE – Center for Chemical Process Safety (available through OSHA intranet TDC ebrary Web site); or
- Any other inspection resource that CSHOs deem appropriate.

CSHOs should contact the [DEP PSM Team](#) if they have questions related to the applicability of an additional inspection resource that they may use to inspect a selected unit.

5. Inspect Both Host and Contract Employers.

CSHOs should inspect both the host employer and contract employers, as specified in XI.E.8 below.

6. Review Inspection History and Abatement.

CSHOs should review all the available OSHA inspection history and any abatement verification submitted by the employer for citations resulting from those inspections.

E. Inspection Procedures.

1. Supplemented FOM Procedures.

The procedures given in the [FOM](#), Chapter 3, should be followed except as modified in the following sections.

2. Opening Conference.

Where possible, the facility safety and health director, process safety manager, or other person capable of explaining the company's process safety management program should be asked to attend the opening conference. The opening conference should include the following:

a. Verify Whether the Facility is Covered by the Appropriations Rider.

CSHOs need to determine if the facility to be inspected is covered by the most recent enforcement policy related to the Appropriations Act. OSHA [CPL 02-00-051, Enforcement Exemptions and Limitations Under the Appropriations Act](#), exempts employers from programmed safety inspections (i.e. CHEM NEP inspections) if: 1) they employ 10 or fewer employees currently and at all times during the last 12 months; and 2) the lost workday case rate for its primary NAICS work activity is below the all-industry national average. See Appendix A of [CPL 02-00-051](#) for listings of primary NAICS work activities that are below the all-industry national average.

If the facility is covered by the Appropriations Rider, the CSHO will curtail the inspection and contact the AO to communicate their findings.

b. Verify PSM Applicability. CSHOs need to confirm that the facility has a PSM-covered process.

- CSHOs should request a list of the chemicals on site and their respective maximum intended inventories. CSHOs should review the list of chemicals and quantities, and determine if there are HHCs listed in 1910.119 Appendix A, or flammable liquids or gases at or above the specified threshold quantity; or whether the facility manufactures any quantity of explosives or pyrotechnics.

CSHOs may ask questions, conduct interviews, and/or conduct a preliminary walkaround to confirm the information on the list of

chemicals and maximum intended inventories. If CSHOs determine that there are no Appendix A HHCs, flammable liquids with flashpoints less than 100 degrees Fahrenheit, or flammable gases present in sufficient quantities and the facility is not manufacturing explosives or pyrotechnics as defined in 1910.109, then, after updating the AO, they shall document their findings and end the inspection.

- CSHOs should confirm that the facility is not a retail facility, oil or gas well drilling or servicing operation, or normally unoccupied remote facility (1910.119(a)(2)). If the facility is one of these types of establishments, CSHOs should document their findings and end the inspection.
- CSHOs should determine if other exemptions apply. According to 1910.119(a)(ii), a process could be exempt if the employer can demonstrate that covered chemical(s) are:
 - Hydrocarbon fuels used solely for workplace consumption as a fuel (e.g., propane used for comfort heating, gasoline for vehicle refueling), if such fuels are not a part of a process containing another HHC covered by the standard, or
 - Flammable liquids with flashpoints less than 100 degrees Fahrenheit stored in atmospheric tanks or transferred which are kept below their normal boiling point without the benefit of chilling or refrigeration.

If the employer believes that the process is exempt, CSHOs shall ask the employer to provide documentation or other information that demonstrates why the process is exempt. After reviewing the documentation or other information, if the CSHO believes a question still exists related to PSM coverage (e.g. the CSHO believes an employer has improperly applied the hydrocarbon fuels exemption when flammable gases that are part of a covered process are used for more than “solely for workplace consumption as fuel”), then the CSHO through the AO should contact their region to resolve the coverage issue. If the region has questions related to PSM-coverage of the site, they should contact the [DEP PSM Team](#) in OSHA’s DEP – OCPSEI.

- CSHOs may ask questions, conduct interviews, or and/or conduct a preliminary walkaround to determine whether any of the PSM exemptions apply. If, at this point, a CSHO determines that the

facility is either not covered or covered but exempted, then, after updating the AO, CSHOs should document their finding and end the inspection. The AO should inform the RO that the facility is not PSM-covered so that the RO can update the Regional Master List.

- c. During the opening conference, CSHOs should familiarize themselves with the establishment's emergency response procedures and emergency alarms.
- d. CSHOs should also request that the management representative(s) provide them with an overview of the processes/units at the facility, including block flow and/or process flow diagrams indicating chemicals and processes involved.
- e. To understand the basics of the employer's processes and the possible catastrophic scenarios that could occur, the team should ask the management representative to explain catastrophic release scenarios that might occur and what controls are in place to prevent them from happening.
- f. During the opening meeting, CSHOs should determine the nature of the PSM-covered process(es) as they might relate to the dynamic lists questions.

CSHOs should use the [CSHO Instructions for the Dynamic Lists](#) contained in the [PSM OSHApedia Intranet Web site](#) to determine which sets of questions to utilize for the type of process being inspected, and also how many questions should be addressed during the inspection.

- g. Temporary workers. During the opening conference, CSHOs should ask whether any workers at the facility are temporary workers who work on or near a PSM-covered process.

3. Documentation to be Requested -- General and Process-Related.

CSHOs should request access to the documents listed below:

Compliance Guidance: The list below is not intended to limit the type and number of documents to be requested. The OSHA inspection team may request more documents as necessary.

Some requests require the employer to provide a list of information. The intent of first requesting a list (versus complete documentation) is to limit the amount of documents that the employer may need to produce.

The following tables represent documents typically compiled by employers with PSM-covered processes at their facilities. The PSM standard requires the employer to maintain some, but not all, of these documents. Therefore, the employer may not have all of these documents. Documents specifically required by an OSHA standard or regulation are identified (*). If employers do not have these identified/required documents, then employers may be cited independent of the dynamic list questions. Table 1 identifies documents that should be requested prior to identifying the Selected Unit(s). Table 2 identifies documents that should be requested after the selected unit(s) are identified. In some cases, documentation may have been produced by a consultant or contractor.

| Table 1 - Documents That Should Be Requested Prior to Identifying the Selected Unit(s) |
|--|
| <i>OSHA 300 logs for the previous three years for the employer and the process-related contractors*.</i> |
| <i>All contract employee injury and illness logs as required by 1910.119(h)(2)(vi)*.</i> |
| <i>A list of all PSM-covered process/units in the complex.</i> |
| <i>A list of all units and the maximum intended inventories* of all chemicals (in pounds) in each of the listed units. Compliance Guidance: 1910.119(d)(2)(i)(C) requires employers to have process safety information (PSI) for the maximum intended inventories of chemicals that are part of their PSM-covered processes.</i> |
| <i>A summary description of the facility's PSM program.</i> |
| <i>Unit process flow diagrams*.</i> |
| <i>Process narrative descriptions.</i> |
| <i>Host employer's program for evaluating contract employer's safety information.</i> |
| <i>Host employer's program/safe work practices for controlling the entrance/exit/work of contractors and their workers in covered process areas.</i> |
| <i>Emergency Action Plan* (If the employer has 10 or fewer employees they may communicate the plan orally (29 CFR 1910.38(b)) -- i.e., they may not have a written emergency action plan; and Emergency Response Plan* if the facility is also required to comply with 29 CFR 1910.120(q).</i> |
| <i>Host employer's program for periodically evaluating contractor performance.</i> |

| Table 2 - Documents That Should Be Requested After the Selected Unit(s) Are Identified |
|---|
| <i>Piping and instrumentation diagrams (P&IDs) including legends*.</i> |
| <i>Unit electrical classification documents*.</i> |
| <i>Descriptions of safety systems (e.g., interlocks, detection or suppression systems)*.</i> |

| |
|--|
| <i>Design codes and standards employed for process*## and equipment*## in the Selected Unit(s).</i> |
| <i>A list of all workers (i.e., hourly and supervisory) presently involved in operating the Selected Units(s), including names, job titles, work shifts, start date in the unit, and the name of the person(s) to whom they report (their supervisor).</i> |
| <i>The initial process hazard analysis*(PHA) and the most recent update/redo or revalidation* for the Selected Unit (s); this includes PHA reports*, PHA worksheets*, actions to address findings and recommendations promptly*, written schedules for actions to be completed*, and documentation of findings and recommendations*. Compliance Guidance: Any PHA performed after May 25, 1987 that meets the requirements of 1910.119(e) may be claimed by the employer as the initial PHA for compliance purposes, see 1910.119(e)(1)(v). Safe upper and lower operating limits for the Selected Unit(s)*.</i> |
| <i>A list by title and unit of each PSM incident report; all PSM incident reports for the Selected Unit*.</i> |
| <i>Contract employer's safety information and programs (this will be requested from the host employer after it is determined which contractor(s) will be inspected).</i> |
| <i>Contractor employer's documentation of contract workers' training, including the means used to verify employees' understanding of the training* (this will be requested from the respective contractor employer(s) after it is determined which contractor(s) will be inspected).</i> |
| <i>Other documents as specified in the Dynamic Lists.</i> |

4. PSM Overview.

Prior to beginning the initial walkaround inspections, the team shall request an explanation of the company's PSM programs including, but not limited to:

- a. A briefing on the PSM program components and how the facility implements them;
- b. Identification by name and position of personnel responsible for implementing the standard's various elements;
- c. A description of company records used to verify compliance with standards; and
- d. A review of the written summary description of the PSM program.

5. Personal Protective Equipment (PPE) and Camera/Video Use.

In addition to normal inspection protective equipment (refer to [OSHA Field Safety and Health Manual, ADM 04-00-001](#)), CSHOs conducting these inspections shall be provided with flame-retardant clothing for protection from flash fires.

- a. CSHOs shall wear flame-retardant clothing in all areas of the plant where there is potential for flash fires and as may be required by company policy.

Clothing made of hazardous synthetic fabrics may melt, causing severe burns, and shall not be worn underneath flame-retardant coveralls. All garments worn under flame-retardant coveralls shall be made of 100% cotton or other non-synthetic fibers.

- b. Prior to any preliminary or initial walkaround inspections, CSHOs must review the employer's procedures for PPE selection and allowable electronic equipment in the Selected Unit (s) and/or areas of the facility that CSHOs will be inspecting. CSHOs shall ensure that these procedures and the associated PPE selection have been prepared in accord with the PSM standard as well as [1910, Subpart I, Personal Protective Equipment](#). The facility-required PPE and flame-retardant clothing (where flash fires are possible) are the baseline PPE requirements for CSHOs conducting walkaround inspections.

- If the facility requires a respirator or, in a CSHO's judgment, a respirator should be worn, then each CSHO must receive proper training and qualification prior to using a respirator.
- For hazardous electrically classified areas, CSHOs shall ensure that cameras (still or video) and other electronic devices are intrinsically safe.

Note: CSHOs may use non-intrinsically safe cameras equipped with a telephoto lens from outside classified areas and/or still film cameras without batteries or a flash.

If the employer allows the use of non-intrinsically safe cameras or other equipment in hazardous (classified) locations, CSHOs may use this type of equipment when: (1) the employer issues a hot work permit for the use of the camera; and (2) continuous combustible gas metering, which has been calibrated prior to use, is provided in the areas where the camera or equipment will be used.

6. Initial Walkaround.

After the opening conference, the inspection may begin with a brief initial walkaround inspection of those portions of the facility within the scope of the PSM standard. During the initial walkaround CSHOs should:

- a. Look for differences between what was presented in the PSM overview discussion and actual conditions;
- b. Gather information to aid in the selection of the process unit(s) a.k.a. selected unit(s) to be inspected;
- c. Obtain a basic overview of the facility's operations;
- d. Observe potential hazards including, but not limited to, pipe work at risk of impact, corroded or leaking equipment, unit or control room siting and trailer location, relief devices and vents that discharge to atmosphere, and ongoing construction and maintenance activities;
- e. Solicit input from workers and their representatives and contract employees concerning potential PSM program deficiencies.
Compliance Guidance: Additional walkaround activity will be necessary after the Selected Unit(s) is identified.

7. Selection of Unit.

The team leader should select a PSM-covered process or processes to evaluate for compliance with the standard. For large, continuous processes, the team leader may select a portion of the covered process -- for example, a unit operation within the covered process. The selected process or portion thereof should be referred to as the selected unit. Team leaders may select more than one unit if they feel it is necessary to get a representative sample of the facility's covered processes based on its size and complexity. The selection should be based on the factors listed below, and should be documented in the case file:

- a. If the establishment has more than one PSM-covered process or process unit, then the selected unit should be different than a selected unit from a prior CHEM NEP inspection. If all the PSM-covered processes or process units have been Selected Units during past CHEM NEP inspections, then the team leader may initiate an inspection on a previously inspected selected unit.

Notwithstanding the above, if in the opinion of the team leader, in lieu of inspecting low risk processes that have yet to be inspected under the CHEM NEP, the team leader may select other higher risk covered

process(es) that have previously been inspected. See criteria listed immediately below to assist in determining higher risk covered processes.

- b. Nature and quantity of chemicals involved (*e.g.*, risk of releasing flammables, high toxicity substances present, high operating pressures and temperatures)
- c. Incident investigation reports, near-miss investigation reports, emergency shutdown records, and other history
- d. Lead operator's input
- e. Age of the process unit
- f. Factors observed during the walkaround;
- g. Worker representative input
- h. Number of workers present
- i. Current hot work, equipment replacement, inspection, test and repair records, or other maintenance activities
- j. Compliance audit records, including open and pending items
- k. List of contractors

Compliance Guidance: It is not intended that the unit selection be a resource-intensive activity. The criteria listed above are intended to be used as a guide. The team leader should attempt to identify the most hazardous process using these criteria; however, he/she can use discretion in choosing the selected unit.

8. Inspection of Contractors and Temporary Workers.

If the facility is using contractors in PSM covered operations:

All contractors (including subcontractors) working on or adjacent to the selected unit should be inspected as per the Programmed Inspection section in this instruction (XI.B.1 above). If an inspection is initiated as a result of an unprogrammed activity, contractors should be inspected as per the Unprogrammed Inspection section in this instruction (XI.B.2 above).

CSHOs should use the applicable questions in the current *Chemical NEP Dynamic List of Questions; General List -- Host and Contract Employer Questions (Required)* (See [PSM OSHApedia Intranet Web site](#)) when

evaluating host and contractor employer compliance. CSHOs should also use the applicable questions in this list to evaluate the employer's compliance with PSM requirements for host and contract employers and their employees.

If there are no contractors working on or adjacent to the selected unit when the team leader is prepared to inspect the contract employers, then the team leader needs to choose an additional PSM-covered process where contractors are known to be working, and inspect those contractors.

Temporary workers (workers supplied to a host employer and paid by a staffing agency).

CSHOs should determine if there are any workers working on or near a PSM-covered selected unit and exposed to a violative condition are temporary. When OSHA finds a temporary worker exposed to a violative condition, and is it determined that a joint employer situation exists, OSHA may issue citations to either or both of the employers, depending on the specific facts of the case.

9. Compliance Guidelines.

CSHOs may recommend citations for hazardous conditions or violations of OSHA standards or the General Duty Clause found during the inspection, regardless of whether they are specifically addressed in this instruction.

Plain view or other hazardous conditions that are not part of the dynamic lists questions may be addressed by CSHOs without expanding the inspection. CSHOs should document how they identified these hazardous conditions. The intent of this provision is to facilitate the inspection by not requiring a team leader or CSHO to expand an inspection for obvious and plain view hazardous conditions that are identified.

Guidelines for assessing and verifying compliance with PSM standard provisions are provided in the dynamic list. When conducting PSM compliance evaluations of the selected unit:

- a. CSHOs shall use the guidance given in the dynamic lists. The dynamic list-based evaluation of this NEP is a gap analysis formatted in a series of questions to facilitate the evaluation of various requirements of the PSM standard. Instructions for using the dynamic lists are provided in the [CSHO Instructions for the Dynamic Lists](#) contained in the [PSM OSHApedia Intranet Web site](#).
- b. Expanded Inspection. If, during the course of the evaluation, the Team Leader or CSHO determines that an expanded inspection is warranted,

then the Team Leader should consult with the AD and may expand the inspection to other units or areas.

Reasons for expanding an inspection may include, but are not limited to:

- Deficiencies in the employer's PSM compliance exists outside the selected unit or dynamic list questions; or
- Utilizing the dynamic lists questions, the CSHO identifies pervasive or recurring hazards.

CSHOs should document the basis for this determination and include the documentation in the case file.

10. Review Inspection History and Abatement.

During the course of the inspection, the CSHO shall review abatement for all PSM citations issued within the previous six years to determine whether the hazard still exists. If a hazard exists, the CSHO shall determine whether there has been a failure to abate in accord with the [FOM](#), and issue a notice for failure to abate as appropriate.

In cases where a follow-up inspection has been completed since the abatement was in place, it is not necessary for CSHOs to review the abatement.

11. Citations.

Citations for violations shall be issued in accord with the [FOM](#). The following additional directions should be used for citations of PSM violations:

- a. The requirements of the PSM standard are intended to eliminate or mitigate catastrophic releases of HHC. The provisions of the standard present closely interrelated requirements, emphasizing the application of management controls when addressing the risks associated with handling or working near HHC.
- b. Any violation of the PSM standard is a condition that is likely to cause death or serious physical harm.
- c. Violations of the PSM standard should **not** normally be classified as "other-than-serious."

F. Program Evaluation.

This NEP will be evaluated using data collected from case files and follow-up site visit reports submitted by each AO to their ROs. The data will be evaluated to determine the impact of OSHA inspections on the reduction of PSM hazardous conditions at each worksite. Each Region should designate an individual who will work with the OCPSEI.

G. Outreach.

OTI, in conjunction with the DEP and the Office of Public Affairs, has developed chemical plant PSM information and training materials. This information has been made available to the ROs for distribution to the AOs and Consultation Program offices. Each AO and RO is encouraged to develop outreach programs that will support its enforcement efforts. OSHA's Alliance program can assist with the coordination of efforts and reaching out to stakeholders. Suggested outreach products and activities include the following:

1. Letters and news releases announcing the implementation of this instruction.
- B. Seminars on chemical plant and refinery process safety topics tailored for specific audiences, such as employers, worker groups, local trade unions, apprentice programs, equipment manufacturers, and material suppliers.
3. Collaboration with OSHA's cooperative program participants, including Voluntary Protection Programs, Strategic Partnership, and Alliance Program participants, to share success stories and technical information concerning effective means of controlling and reducing or eliminating potential catastrophic releases of HHCs.

The instruction below is for recording inspections under this NEP. Appendix A, *Inspections at PSM Facilities: Type of Inspection Activity and Related Coding*, is a flow chart provided to help CSHOs to determine the proper inspection coding based on the host and contractor employer(s) activities.

Programmed Inspections: When an inspection is initiated because a host employer is targeted for an inspection related to this NEP or the inspection is conducted in conjunction with another programmed inspection, the Inspection Type shall be marked as "Programmed Planned." "CHEMNEP" shall also be selected from the National Emphasis Programs drop-down menu. All inspections of contractors initiated as a result of host employer programmed inspection(s) will be categorized as programmed-related inspections. The inspection for the contractor must indicate "CHEMNEP" in the national emphasis programs drop-down menu.

Unprogrammed Inspections: If an inspection is initiated due to an unprogrammed activity (fatality, catastrophe, complaint or referral) related to a host employer site, the inspection type of the host employer will be entered as “unprogrammed”, and associated inspection types of contractors will be coded “unprogrammed related.” In addition, “CHEMNEP” shall be selected from the national emphasis programs drop-down menu.

If an inspection is initiated due to an unprogrammed activity related to a contractor employer, then the inspection type of the contractor employer will be entered as “unprogrammed,” and the inspection type of the host employer will be entered as “unprogrammed-related.” In addition, “CHEMNEP” shall be selected from the national emphasis program’s drop-down menu.

In the event that the CSHO is conducting concurrent inspections of host and/or contracted employers, ensure that the related inspections are properly entered into the related activities tab of the Inspection.

“CHEMNEP” will be selected from the national emphasis programs drop-down menu for all follow-up inspections. The previous inspection number will be entered into the related activities tab of the inspection (Previous/Subsequent Inspections). See below:

Inspection Number: Add

For Followup or Monitoring activity, Inspections of the same establishment conducted at the same worksite at an earlier time. In unusual cases, the Followup or Monitoring inspection may be conducted at a different worksite or establishment.

| Inspection Number | Previous/Subsequent |
|-------------------|---------------------|
| 109697 | Previous Inspection |

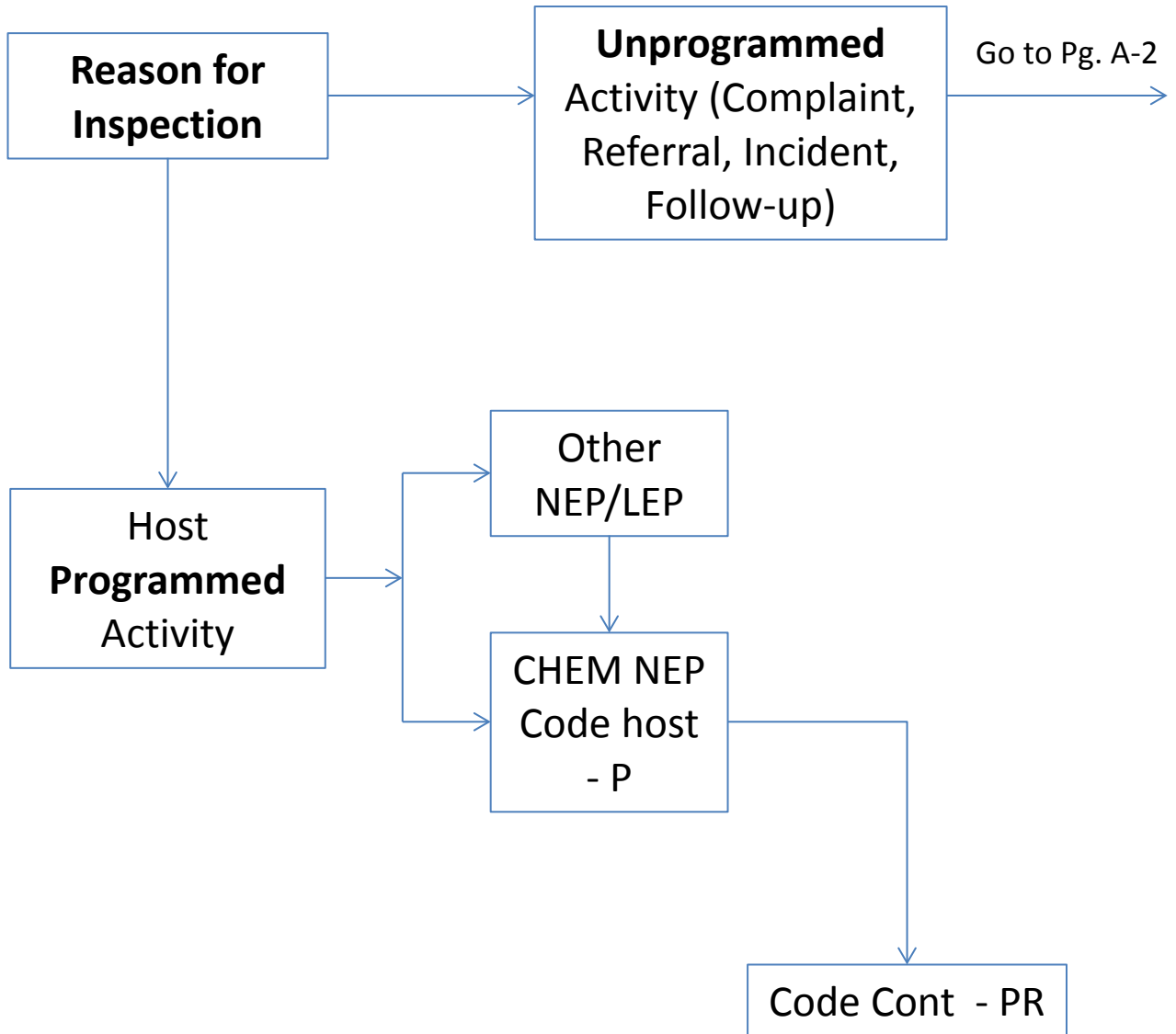
Remove

Whenever a consultation visit is made in response to this NEP, Consultation request/visit forms are to be completed and the national emphasis program "CHEMNEP" will be selected in the appropriate form.

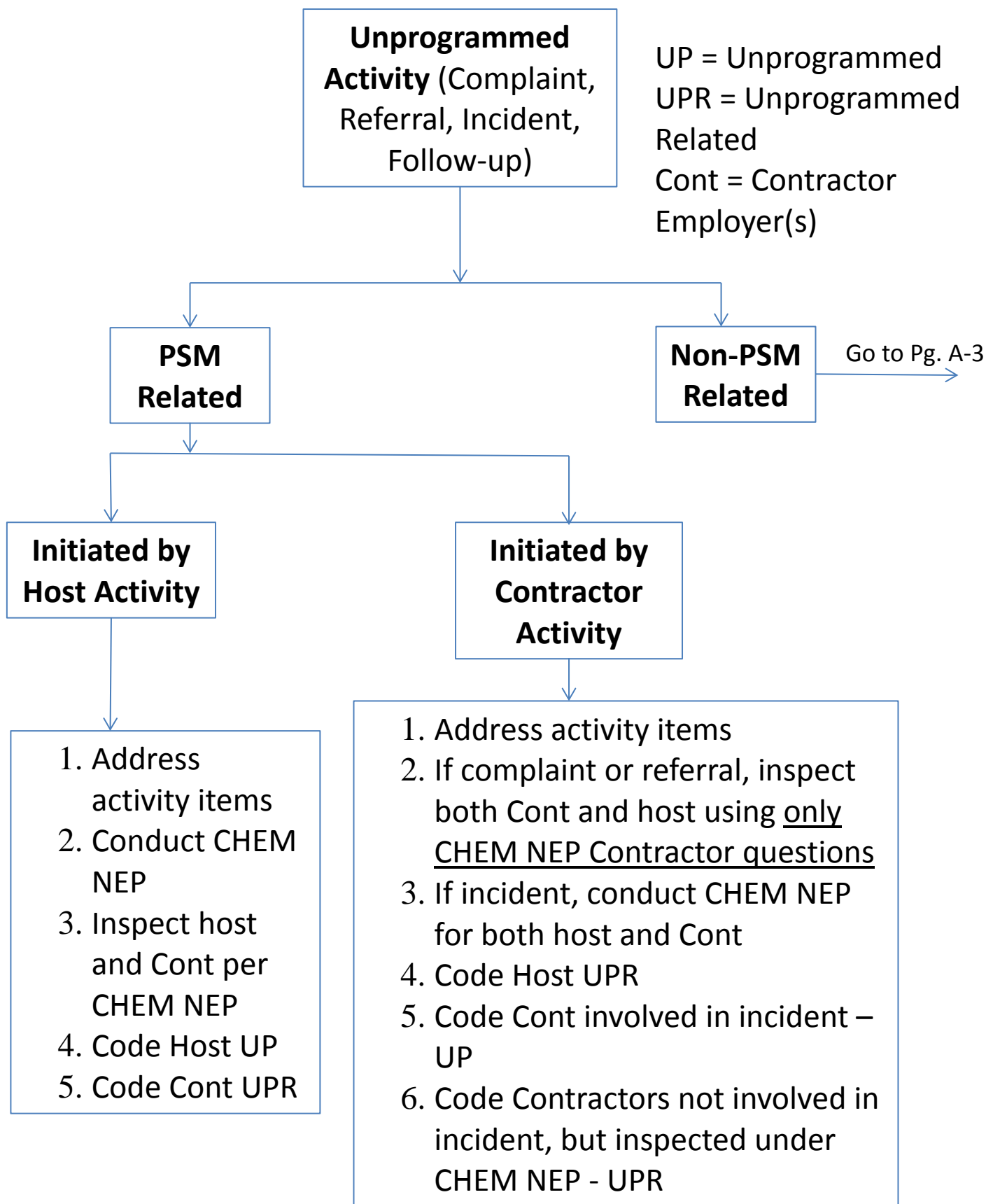
I. Consultation.

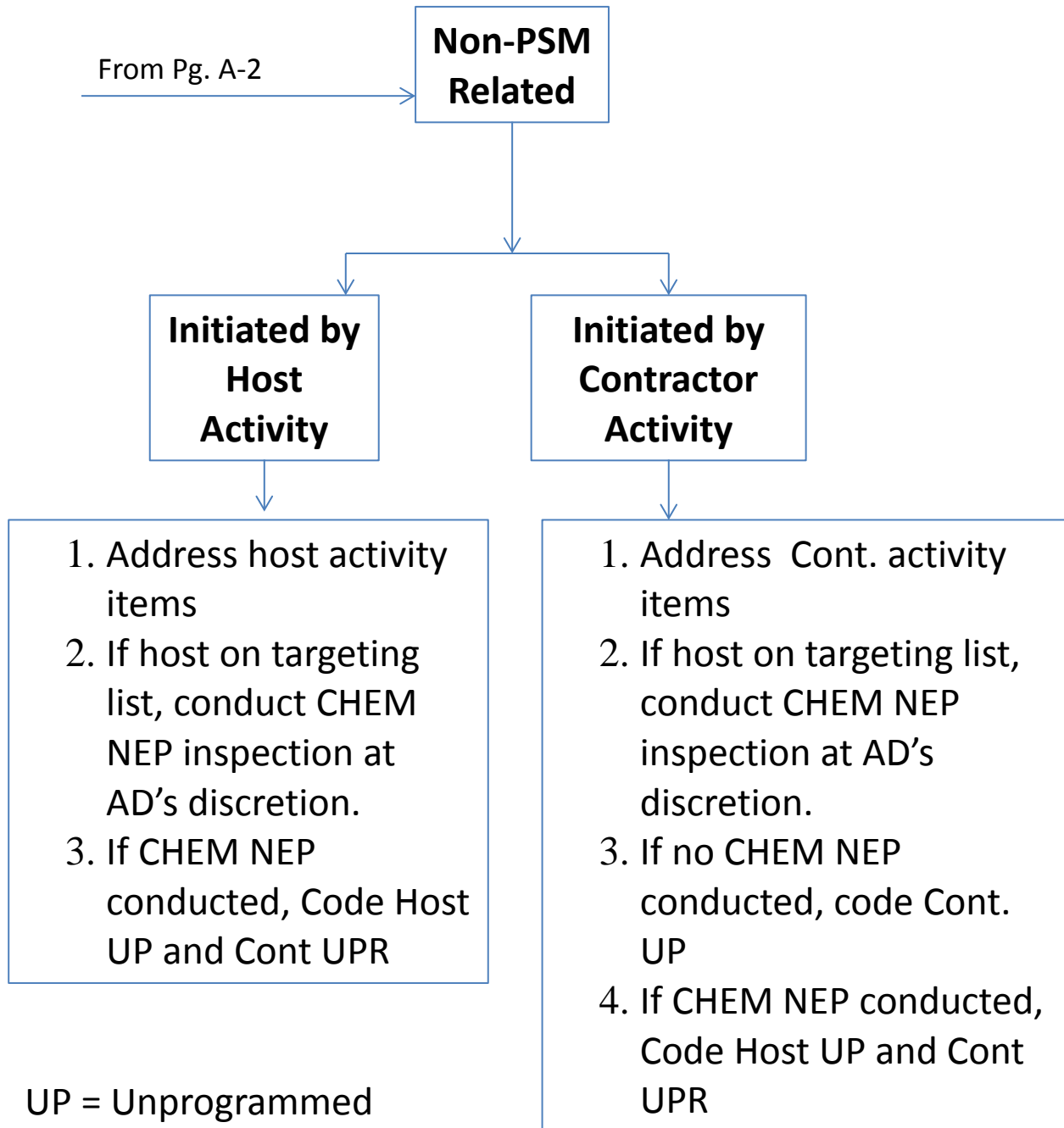
Regional and area offices are encouraged to work with their State OSHA Consultation Office to communicate the goals of this NEP. When appropriate, 21(d) Consultation Projects are encouraged to develop and conduct their own outreach activities to address exposures to process safety and other hazards.

Appendix A
Inspections at PSM Facilities: Type of Inspection Activity and Related Coding Flow Chart



Programmed = P
Programmed Related = PR
Cont = Contractor Employer(s)





UP = Unprogrammed
 UPR = Unprogrammed
 Related
 Cont = Contractor
 Employer(s)

INDEX

- "Programmed", 1, 2, 7, 10, 12, 29
- abatement, 5, 22, 31
- Abatement, 22, 31
- accident, 2
- Accidents, 12
- Action Offices, 1, 3
- AD, 6, 12, 13, 21, 31
- ADM 03-01-005, *OSHA Compliance Records*, 1
- ammonia refrigeration, 13, 15
- Ammonia Refrigeration Level 1, 13, 15
- Appendix A – PSM Audit Guidelines*, 2, 21
- Appendix A - Static List of Inspection Priority Items (IPI)*, 2, 21
- Appendix B - Supplemental Questions for Hazard Identification*, 2, 21
- area directors, 2
- Catastrophes, 12
- Category 1, 8, 10, 13
- Category 2, 8, 10
- Category 3, 8, 11
- Category 4, 8, 11
- code, 4
- complaint, 12
- Complaint, 12
- compliance assistance, 4
- concurrent inspection, 12
- Consultation, 9, 32, 33
- Contract, 21
- contract employers, 30
- contractor, 12, 17, 25, 29, 30
- Course 330, 14, 15, 16
- Course 3300, 15, 16
- Course 3400, 15, 16
- Course 3410, 15
- Course 3430, 15
- CPL 02-02-045, 1, 2, 4, 19, 21
- [DEP PSM Intranet website](#), 10, 18, 19, 20, 21, 24, 30
- DEP PSM Team, 21, 23
- Design codes and standards employed*, 26
- Directorate of Enforcement Programs, 1, 6
- documentation, 24, 26
- DTSEM, 17
- dynamic list, 2, 30
- Dynamic List, 12, 20, 30
- Dynamic Lists, 20, 21, 24, 30, 31
- electrically classified areas, 27
- emergency planning, 17
- employee participation, 17
- EPA RMP
 - RMP, 2, 3
- expand, 2, 3, 21, 30, 31
- Expanded Inspection, 31
- Expanding the Inspection, 20
- explosive manufacturing, 2, 3
- Field Operations Manual (FOM), 6
- flame-retardant coveralls, 27
- flammable liquids, 9, 22
- HAZWOPER, 6, 17
- host, 12, 22
- Host, 21
- hot work permit, 17
- HRT, 18
- IMIS, 7, 33
- Inspection History, 22, 31
- Inspection Scheduling, 10
- Inspection targeting, 2, 3
- interviews, 23, 24
- Level 1, 14, 15, 16
- Level 2, 16
- Level 3, 16
- local facilities, 7, 8
- Master List, 7, 11, 24
- NAICS, 7, 8
- Office of Statistical Analysis, 4
- OIS, 7
- opening conference, 20, 22, 24, 28
- operating procedures, 27
- operation procedures, 27
- Outreach, 32
- petroleum refineries, 2, 3, 5, 6
- petroleum refinery, 5, 6
- Petroleum Refinery*, 2, 21
- PHA*, 26
- pilot NEP, 5
- plain view, 21, 30

PPE, 27
PQV, 4, 19
Prior Chemical NEP Dynamic Lists of Questions, 21
Program 1, 2, 3, 7, 8
Program 2, 3, 7
Program Evaluation, 32
PSM coverage, 23
PSM Safety and Health Topics website, 19
pyrotechnic manufacturing, 2, 3
referral, 12
Refinery NEP, 5, 8, 21
respirator, 27
Risk Management Program (RMP), 7
safe upper and lower operating limits, 26
selected unit, 26, 27, 29, 30
Selected Unit, 20, 21, 26, 28, 29, 30, 31
SHARP (Safety and Health Achievement Recognition Program), 9
state-plan, 2
targeting, 7
Temporary workers, 24, 30
Temporary Workers, 29
training, 14, 15, 16, 17
Unprogrammed, 1, 12, 29
Voluntary Protection Programs, 32
VPP, 5, 9, 13
walkaround, 23, 24, 26, 27, 28, 29