

# CONDUCTING AN ENVIRONMENTAL AUDIT

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# ENVIRONMENTAL AUDIT

- **DETERMINE WHY THE ENVIRONMENTAL AUDIT IS BEING CONDUCTED AND WHAT ARE THE GOALS/OBJECTIVES.**
- **WHAT IS THE SCOPE (IS SAFETY AND INDUSTRIAL HYGIENE INCLUDED).**
- **WHO IS ON THE TEAM AND WHAT ARE THEIR ROLES. IS LEGAL INVOLVED.**



# **SOME ITEMS TO CONSIDER FOR AUDIT**

- **NEED TEAM MEMBER(S) KNOWLEDGEABLE ON PROCESSES, CHEMISTRIES, BYPRODUCTS, FACILITIES OPERATIONS, ETC.**
- **HOW CAN THIS ENVIRONMENTAL AUDIT IMPROVE MANUFACTURING AND BUSINESS OPERATIONS.**
- **PROVIDE SOLUTIONS TO OPPORTUNITIES FOUND.**



# **SOME ITEMS TO CONSIDER FOR AUDIT** **(CONTINUED)**

- **CAN THIS AUDIT SUPPLEMENT ISO 14001: LEGAL/OTHER REQUIREMENTS; ENVIRONMENTAL ASPECTS AND IMPACTS; GOALS AND OBJECTIVES.**
- **WILL CHEMICAL/GAS SUPPLIERS, WASTE HANDLERS, TSDF, ETC. BE INCLUDED.**
- **WHO IS DOCUMENTING FINDINGS AND SOLUTIONS.**



# **SOME ITEMS TO CONSIDER FOR AUDIT** **(CONTINUED)**

- **HOW WILL YOU DEAL WITH ERRORS IN PERMIT CONDITIONS AND REGULATORY LETTERS, WHICH SHOW NON-COMPLIANCE.**
- **DETERMINE IF PAST CHANGE OF OWNERSHIP (IF APPLICABLE) IMPACTS AUDIT.**
- **HOW FAR BACK WILL AUDIT BE CONDUCTED.**



# SOME ITEMS TO CONSIDER DURING AUDIT

- **COMMUNICATIONS BETWEEN MANUFACTURING, EHS AND FACILITIES PERSONNEL (ARE REGULATORY AND PERMIT REQUIREMENTS BEING COMMUNICATED ACCURATELY).**
- **ENSURE AUDIT TEAM IS IN AGREEMENT WITH PERMIT AND REGULATORY REQUIREMENTS WHEN MAKING FINDINGS AND RECOMMENDATIONS.**



# **SOME ITEMS TO CONSIDER DURING AUDIT (CONTINUED)**

- **RECORDKEEPING: IS ALL INFORMATION BEING DOCUMENTED AND BEING FILED FOR LENGTH OF TIME REQUIRED. REVIEW RECORDKEEPING ITSELF – AVOID ACCEPTING “IT IS OK, NO NEED TO LOOK AT IT.”**
- **TRAINING PROGRAMS IMPLEMENTED PER ENVIRONMENTAL REQUIREMENTS.**



# **SOME ITEMS TO CONSIDER DURING AUDIT (CONTINUED)**

- **KEEP GOOD COMMUNICATIONS THROUGHOUT AUDIT. BEST NOT TO WAIT UNTIL CLOSING MEETING OR FINAL REPORT TO DISCUSS WITH SITE PERSONNEL.**
- **DEVELOP LIST OF ADDITIONAL ITEMS TO ASSIST SITE. EXAMPLES ARE COST REDUCTIONS, SAFETY/INDUSTRIAL HYGIENE OPPORTUNITIES, FACILITY IMPROVEMENTS, ETC.**



# **SOME ENVIRONMENTAL PROGRAM OPPORTUNITIES - AIR**

- **ALL PERMIT CONDITIONS BEEN REVIEWED AND IMPLEMENTED (INCLUDES FIXING ERRORS IN PERMIT CONDITIONS).**
- **PERMIT CONDITIONS MATCH PREVIOUS AIR PERMIT APPLICATION.**
- **O&M PLANS MATCH RECORDKEEPING.**
- **EQUIPMENT LIST UP-TO-DATE.**



# **SOME ENVIRONMENTAL PROGRAM OPPORTUNITIES – AIR (CONT.)**

- **CONTROL EQUIPMENT BEING OPERATED WITHIN PERMIT CONDITIONS AND O&M PLANS.**
- **NEW CHEMICALS BEING USED/EMITTED NEED TO BE ADDED.**
- **PROCESS BYPRODUCTS NEED TO BE INCLUDED.**
- **ANNUAL EMISSIONS INVENTORY REPORTS ACCURATE.**



# **SOME ENVIRONMENTAL PROGRAM OPPORTUNITIES - WASTEWATER**

- **PERMIT CONDITIONS MATCH PREVIOUS WASTEWATER PERMIT APPLICATION.**
- **KEY CHEMICALS (TTO, METALS, ETC.) NEED TO BE ADDED.**
- **WATER/WASTEWATER BALANCE NEEDS UPDATING.**



## SOME ENVIRONMENTAL PROGRAM OPPORTUNITIES – WASTEWATER (CONT.)

- **SAMPLING AND REPORTING NEED TO BE CONDUCTED PER PERMIT CONDITIONS.**
- **SLUG CONTROL PLAN AND POLLUTION PREVENTION PLAN NEED TO BE SUBMITTED.**
- **ALL PROCESSES DISCHARGING AND CHEMICALS USED NEED TO BE INCLUDED.**



# **SOME ENVIRONMENTAL PROGRAM OPPORTUNITIES - WASTE**

- **WASTE LABELING AND ACCUMULATION REQUIREMENTS NEED TO BE IMPLEMENTED.**
- **NEED ALL HAZARDOUS WASTE MANIFESTS AND ENSURE THESE ARE SENT TO REGULATORY AGENCY.**
- **CRADLE TO GRAVE: HAVE INFORMATION TO TSDF BUT NOT FINAL DISPOSAL/TREATMENT LOCATION.**



# SOME ENVIRONMENTAL PROGRAM OPPORTUNITIES – WASTE (CONT.)

- **WORK WITH CHEMICAL/GAS SUPPLIERS TO ENSURE SHIPMENT OF GAS CYLINDERS, BUBBLERS, DRUMS, ETC. BACK TO THEM ARE NOT REGULATED BY RCRA. MAY NOT BE RCRA EMPTY.**
- **HAVE DETAILED HAZARDOUS/UNIVERSAL WASTE TRACKING SYSTEM.**
- **ENSURE HAZARDOUS WASTE TREATMENT IS NOT BEING CONDUCTED ON-SITE.**



# **SOME ENVIRONMENTAL PROGRAM OPPORTUNITIES – TRI FORM R**

- **ENSURE THRESHOLD DETERMINATIONS ARE DONE FOR ALL REPORTABLE CHEMICALS, EVEN IF YOU THINK YOU DO NOT HAVE TO REPORT. SOME THRESHOLDS ARE LOW (MERCURY: 10 LBS; LEAD: 100 LBS).**
- **INCLUDE ALL BYPRODUCTS AND EMISSIONS (E.G. AMMONIA FROM AMMONIUM HYDROXIDE SOLUTION) IN THRESHOLD DETERMINATIONS AND ON FORM R IF REPORTABLE.**
- **INCLUDE TREATMENT ON-SITE (E.G. WET SCRUBBING OF HYDROCHLORIC ACID (AEROSOL ONLY) IS TREATING A REPORTABLE CHEMICAL TO A NON-REPORTABLE CHEMICAL).**



# **SOME ENVIRONMENTAL PROGRAM OPPORTUNITIES – OTHER**

- **ENSURE THAT STORMWATER NO EXPOSURE CERTIFICATION IS CONFIRMED (IF APPLICABLE).**
- **SPCC: DETERMINE IF ALL APPLICABLE STORAGE CONTAINERS ARE ACCOUNTED FOR. ARE ON-SITE NON-OWNED OIL-FILLED TRANSFORMERS INCLUDED.**
- **INCLUDE OSHA PSM WITH EPA RMP REVIEW.**



# SOME ENVIRONMENTAL PROGRAM OPPORTUNITIES – OTHER (CONT.)

- **TSCA LIST REVIEWED AND DOCUMENTATION COMPLETED.**
- **DEVELOP DETAILED EHS CHEMICAL REVIEW AND APPROVAL PROCESS.**



# AUDIT FINAL REPORT

- **MAKE IT POSITIVE. LIST ALL OPPORTUNITIES FOR IMPROVEMENT AND INCLUDE SOLUTIONS.**
- **LIST VALUE-ADDED SUGGESTIONS FOUND DURING AUDIT.**
- **PROVIDE NEXT STEPS.**

