Incident Report
ERM-Southwest, Inc.
Former ASARCO Smelter Demolition
2301 West Paisano Drive
El Paso, Texas 79922

Description of Incident:

On 7/7/2011, a fire was reported in the former ASARCO smelter facility in the vicinity of where approximately 12 hours earlier, a contractor was torch cutting a chain linked fence along the train trestle bridge on the west side of the site. The fire was reported by the evening guard at approximately 0220 hours. The evening guard immediately notified the El Paso Fire Department (EPFD) of the fire via the 911 system, as per site emergency response procedures

As the incident occurred off shift, no work was being conducted; consequently, except for the evening guard, site personnel were not on the site. As a result, there was no exposure from the incident to site personnel or any injuries.

The EPFD responded to the site with one engine and three firefighters to extinguish the fire. The ERM site manager was notified of the situation after the 911 call was made and responded to the site. EPFD was on site for approximate an hour and twenty minutes. The fire department conducted inspections in the surrounding areas and no additional fire or flare-ups were detected. The fire department departed the site at this time.

The work was conducted under a hot work permit. According to site personnel, after the completion of burning activities, the area was watched/checked by several site personnel. As part of this process, contractor personnel specifically watched and checked the area after the completion of burning activities to close out the hot work permit. No signs of smoldering wood were observed. Following permit close out, an additional site walk through the area at the end of the work occurred and no signs of smoldering wood were observed.

Causal Factors & Root Causes

1. Molten slag and errant sparks from torch cutting operations ignited the wood trestle.

- The torch cutting of the chain linked fence produced molten slag that contacted the wood of the trestle structure. This contact produced conditions to allow wooden beams to smolder. The area was watched/checked after the completion of burning activities by site personnel and no signs of smoldering wood were observed. The molten

slag being unfound caused the wood to continue to smolder and ignite the wooden trestle.

- Water was applied to the area before and after the cutting of the fence was completed, but no water was applied during the cutting operation.
- The hot work permit included burning items on a chain-link fence. At the beginning of that work, the burning was well away from the wood trestle. As a result, the site hot work permit for 7/6/2011, item #10 (flammable materials within 35 feet) was unchecked. During the course of conducting the work through the day, the way progressed to within 35 feet of the trestle. The work crew did not note the change of conditions (i.e., that flammable materials were now within 35 feet of burning activities) and notify oversight of the need to amend the permit and take additional protective measures (such as alternative cutting techniques or the use of protective fire blankets).

Contributing Factors and Root Causes

1. Hot work close out inspection did not identify smoldering materials.
2. Additional mitigation factors for hot work within 35 feet of flammable materials were not considered due to the failure to notify oversight of change of conditions from the start of the work.
3. Fire watch procedures would normally be amended for additional point of operation coverage for hot work in the presence of flammable materials. This did not occur.

Corrective Actions

The immediate corrective actions implemented in response to this incident were to:

- Notified emergency services (EPFD) to extinguish fire.
- Maintained fire watch during the evening after EPFD left the scene and continued scrutiny of area until start of morning work shift.
- Conducted safety stand down and briefed personnel of incident.

- Conducted incident investigation and implemented corrective actions;

The required actions to be completed prior to resumption of work:

- Retrain site personnel on the importance of conducting a detailed review of all potential hazards in all areas included in hot work permit;

- Retrain site personnel on how changes in conditions from what was considered in the issuance of a hot work permit cancels a hot work permit and requires site workers to immediately notify site oversight for issuance of a new hot work permit.

- Retrain site personnel of hazard recognition, change of conditions, fire watch procedures and the emergency action plan.

- Retrain site personnel on the procedures of applying water during torch burning operations in addition to applying water prior to and after burning activities.

- Implement a documented 3 point (mid-morning, after lunch break and mid-afternoon) check system of permitted work by oversight personnel to verify work is compliant with permit conditions and to assess whether changes in conditions have occurred.

- Due to high fire hazard conditions in the region, fire watch will be increased from 30 minutes to 60 minutes after completion of work.

- Preparing a "lessons learned" training brief to be conducted prior to resumption of work, to include special emphasis on final inspection, permit close out procedures and due to the high fire hazards in the regions, the value of everybody keeping "their eyes open" for signs of potential ignition sources around hot work activities .

The incident investigation revealed compliance with the implementation of the emergency action plan by affected site personnel.