



Shellegram

Deer Park Manufacturing Complex

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Under OSHA regulations

Plants comply with hazcom

SHELL DPMC is completing work on a comprehensive program to more completely communicate to employees and customers the hazards of chemical products sold or handled at DPMC.

These efforts, which comply with a recently passed Occupational Safety and Health Administration (OSHA) hazard communication regulation, formalize procedures previously followed by Shell. The Industrial Hygiene group is playing a major role in coordinating and developing DPMC's compliance.

The hazard communication regulation (hazcom) establishes formal requirements for all manufacturers and employers in the United States. These include conducting a hazard determination on all products sold, and the development of Material Safety Data Sheets (MSDS) on all products sold or used in the work place.

BUT THE REGULATION does not stop there. Originally called the OSHA "Labeling Standard" when proposed in the late 1970's, hazcom also requires each container in the work place to be labeled in some fashion, or have its contents identified by an alternative method.

While employees at DPMC have historically known most of the chemicals they worked with, compliance with the hazcom regulation makes it easier for

employees to identify chemicals present and their hazards.

The approach taken at DPMC is the use of process drawings which Industrial Hygiene has coined "Chemical Hazard

Identification Diagrams" or CHID. Each process unit developed a simplified process diagram which associates process equipment with chemical composition data

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COMPUTER USE... Industrial Hygiene used two personal computers to track the location of Material Safety Data Sheets. Jan Barton, Industrial Hygiene assistant, did much of the computer work.

Environmental premieres 650 lbs of info

DPMC Environmental is in vogue with the recent Hollywood trends -- sequels and spin-offs.

A four-month production involving more than 1,000 employee work-hours underscores the script of an Environmental sequel -- Resource Conservation and Recovery Act (RCRA), application for permit B, **part two**.

Last Dec. 7, Environmental premiered RCRA application for permit B, **part one**: 650 pounds of information on DPMC's

handling of hazardous waste were submitted. Before the six-month production of details was complete, the definition of hazardous waste changed and the Environmental Protection Agency (EPA) demanded new information. Thus, Environmental's continuing saga.

"Just as we were understanding the legislation, they changed the definition of solid and hazardous wastes," stated Rob Jacoby, a process engineer in Environmental who had the arduous task of assembling

the latest detail to meet government regulation.

"Six streams in our (manufacturing) process that we sell as product or reprocess in our units, now are defined as hazardous wastes but weren't before," said Jacoby, describing light ends from vinyl chloride monomer production and refinery and chemical recovered oil as examples.

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SCORA News:

Two Christmas events in the works; directors needed for SCORA board

Two Christmas events close out the calendar year for SCORA activities as the employee club turns its attention to planning for 1986.

An after-work Christmas social is on tap Friday, Dec. 13. It will be held at the Office Club, Burke and Spencer in Pasadena.

The next day, Dec. 14, the club hosts its annual Children's Christmas Party in the North Cafeteria from 10 a.m. until 1 p.m. The party features a visit from Santa Claus. Each child attending the party receives a gift.

Tentative arrangements are being made to have a puppet show at the party. There also will be Christmas movies. Admission is free for SCORA member families.

Johnny Breechen, coordinator of the event, said he welcomes volunteers to help put on the party. "It is a lot of work for just a



HALLOWEEN TRADITION... Nikki Saunders, who coordinated bobbing activities, and other SCORA Halloween carnival goers watch in suspense as a child chomps into and timidly raises an apple.

Ten and Over parties at Sir-Loin Inn popular with chemical and refinery crowds Oct. 19, 26

The annual Ten and Over parties again proved popular with nearly overflow crowds at separate refinery and chemical gatherings Oct. 19 and 26.

Friendly greetings, reminiscing and telling "war" stories was the order of the day, along with refreshments, a continuous serve buffet and tables of hors d'oeuvres.



SHELLEGRAM POSE... From left, retirees F. Diggins, D. Carroll, J. F. Robinson, R. Stridie and F. J. Lewis pose for the camera. The group claims in all their working days, they never made it into the *SHELLEGRAM*.



DIFFERENT ERAS... It seems our heroes change to keep up with the times. While Bill Dorsey, Maintenance, portrays a swashbuckling Captain Hook, a youngster plays out his fantasy as a "Star Wars" hero.

few people to handle," he said. "I would really appreciate any volunteers." Volunteers should call Breechen on extension 7520.

In other club news, Billie Daniel, extension 6684, is taking names of members interested in running for the board of directors. A membership drive again will be held in January and February with officers elected in March.

Also, with planning taking place now for 1986 events, members are asked to send suggestions for events and activities to board members. "SCORA can be whatever the members want it to be. The board wants to schedule activities that members are interested in attending," said Carolyn Anderson, extension 7445.

Also, retirees are encouraged to become more involved as active members of SCORA. Jim Repp, retired from Safety, is the retiree representative on the SCORA board. Repp, 422-5412, or Anderson would be happy to hear suggestions for events from retirees.

"We have a number of retirees who are active, but many more could be," Anderson said. "A lot of SCORA events are popular with our active retirees, such as camping trips, dances, and children's activities which are open to members' grandchildren."

A separate television room, with a large screen television; allowed attendees to keep up with college football telecasts.



GREETING... Retirees K. C. Walker, left, and Larry Horstman exchange a handshake during the Ten and Over gathering.

At Texas A&M fire school

DPMC firefighters practice new skills

DPMC firefighters polished skills during extensive training at Texas A&M's fire school, which marked the first time the annual training included an all-volunteer fire brigade.

The September drills included exercises on team work in handling fire hoses, effective water stream applications, fighting fires on elevated platforms and inside structures. Also covered was use of self-contained breathing apparatus, foam application to fires and use of dry chemical extinguishers.

In some drills, firefighters use a water fog pattern (a wide, fine spray of water) to keep flames off crew members as they actually walk into the fire to close a valve in the burning unit.

As the 200 DPMC firefighters stepped through the paces of the fire school, advantages of an all-volunteer crew glowed evident. "The all-volunteer fire crew is a diamond in the rough; all we need to do is polish it," said Jack Oliphant, complex fire chief.

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PUSHING FIRE...DPMC fire crew members push heat and flames away from a vertical vessel by applying a stream of water to a fire during training drills at Texas A&M.





SECOND SESSION...DPMC employees take time for a group photograph after fighting a big fire on the second day of firefighting school at Texas A&M Sept. 12.



FOAM TEST...A Shell DPMC firefighter applies foam solution to cover a liquid surface of gasoline and diesel fire. The foam will suffocate the flames.



GOING UP STAIRS...Teams of DPMC firefighters maneuver hoselines while attacking the base of a fire and preparing to go up stairways to extinguish fires on an elevated structure.



THIRD SESSION...DPMC employees take time for a group photograph after fighting a big fire on the second day of firefighting school at Texas A&M Sept. 19.

For participation and enthusiasm

Chief praises fire crews

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"Participation and enthusiasm of the fire crew was excellent. They liked it," he added. "These people are here because they want to do the job, not because they are forced by job designation."

The all-volunteer crew also is more experienced. "Many of our volunteers are on their community volunteer fire departments and already are well-trained," said Oliphant, who indicated the four September training sessions were the easiest his safety inspectors ever have had.

"The A&M staff didn't put on their equipment throughout our training," Oliphant added as testimony to the expertise of the Shell crews.

Some non-fire crew employees who were first-time participants at firefighting school echoed Oliphant's salute to the ability of DPMC firefighters.

"I have a little more respect for these guys and the job they do. It is not an easy job, in fact, it is rigorous. I am glad they are there doing the job," said Tom Szepelak, an engineer in Lube.

"The seven or eight fire captains that

worked with us really know their business, as do the guys in Safety," said Chicken Williams, a boilermaker in Maintenance. "They have to, because you can't afford a mistake when flames are roaring 30 feet out over your head."

However, the all-volunteer fire brigade did not wait for Texas A&M to showcase its skills. "We had a fire at a 200 foot diameter crude tank in early September," admitted Oliphant. "I could not have drawn it on the board any better than the fire crew performed. We could not improve on it."



Signs, labels make hazards known

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and MSDS which apply to those process streams. This information is supplemented in the field by signs and labels on key vessels and work areas which present special hazards.

Logistics and Distribution also has taken a lead role in assuring all outgoing portable containers, such as tank cars and tank trucks, are labeled. Other portable containers, such as process samples, also will have additional warning information applied. Ray White from Quality Assurance is heading a committee addressing that issue.

All the information must be tied together by a work area chemical listing which lists chemicals found in particular work areas. This list now can be found in each area's MSDS book.

EMPLOYEE TRAINING is also a big part of the regulation. Employees are going to receive refresher training on the use of MSDS and a more in-depth review of chemical hazards to which employees may be exposed. MSDS are being revised by all chemical manufacturers to include more toxicity information.

"This means employees will have to be better able to interpret the medical terms," said Phil Snyder, Industrial Hygiene. "A MSDS users guide has been out on each unit for several years, but now, with more technical information, there is an additional need to refer to it."

Training sessions have already been held for many employees. Initial training must be completed by a May 26, 1986 deadline included in the regulation. "We are trying to put the program in place by Jan. 1 so that we can audit and fine tune it during the first quarter of '86," said Snyder.

Additional, ongoing training will be needed whenever new chemical hazards are introduced into the work place, when new field job assignments occur, and when new toxicity information is reported, said Snyder.

TRAINING AN EMPLOYEE who is assigned to a specific work area is one aspect. The hazcom regulation also addresses maintenance personnel who show up to work in an area for the first time. Traditionally, the departmental work permit system has been used to address this situation by having Operations "set the conditions and requirements" for maintenance performed. To strengthen these procedures, a work permit addendum was developed for the various process

areas. It is a one page summary of chemical hazards in the work area, but not all inclusive, said Snyder. "If the worker wants to know everything he will have to refer to the MSDS listed on the addendum," he said.

TRAINING IN THE HAZARDS of chemicals is not new to DPMC, added Snyder. "It's good business to train employees in the hazards of chemicals, precautionary work practices, the use of protective clothing and emergency procedures. We've done this for many years," he said. "What the regulation calls for is a formalization of this activity.

"The basis of the regulation is that employees have a 'right to know' about the chemical hazards they work with, and that an informed worker is more likely to take the necessary protective steps," Snyder said.

Snyder added that training cannot possibly cover all 3,000 to 4,000 chemicals present at DPMC, so the regulation requires the employee to take an interest and learn more about chemicals with which he or she works. "That's the dual nature of the reg," Snyder said. "The company provides the tools and training, but the employee must get involved and follow the safe work practices which are recommended."

THE REGULATION SPECIFICALLY requires that employees be trained to detect when their own exposure exceeds permissible exposure limits for chemicals. This may be odor, a visual presence, or even through the use of portable instrumentation such as the Draeger detector tube kits used at DPMC.

"This is the most challenging part of the compliance effort," said Snyder. "It is often difficult to detect, let's say, 15 parts per million of benzene in the air. You may faintly smell it, and it probably is not irritating, but according to our guidelines, a respirator must be worn.

"Chemical health hazards are only one risk factor of those which influence our health," added Snyder, "but steps can be taken to minimize the hazard involved.

"This regulation will probably have a greater impact on many small chemical companies which historically have not had a strong Industrial Hygiene effort," added Snyder.

AS COMPREHENSIVE as the communication program sounds, it was even more exhaustive to prepare, according to Snyder. "It wasn't like we were not doing anything before, but now we had to do it differently

in order to be in compliance," he said. "Product Safety and Compliance at head office even had to put the Shell MSDS on a new computer program in order to get all new information on the form."

At Deer Park over 140 new MSDS books containing over 1,500 MSDS were put into the field and 500 MSDS are still on order. With the help of a summer intern, 600 work permits addenda were written and two computer programs developed to make it all work.

APPROXIMATELY 100 chemical hazard identification diagrams were also put together with the help of process engineers and Drafting. In Industrial Hygiene, Jan Barton played a lead role with help from David Snyder and Patsy Hernandez, who oversees the MSDS system for DPMC.

"In Industrial Hygiene alone, over four employee work years have gone into hazcom. And all that work doesn't even include the training effort which is really the heart of the regulation," said Phil Snyder.

"Shell puts a lot of time and effort both at the corporate and local level to design and develop information for safe handling of chemicals," said Phil Snyder. "But, in the end, much depends on the employee to do his or her part, to recognize unsafe conditions and take the necessary measures."

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3-2-2 BRICK HOME, corner lot, wood fence, near Beltway and Hwy 225, off Greenshadow, 3811 Edgefield Street, \$60,800, will lease or rent. 472-2006 or 479-2098

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Thank you for the retirement gifts and for your friendship and helpfulness over the years.

J. B. WORTHEN

Thank you for the good and useful retirement gifts. The years I have been with you have all been very good years for me.

CAB CALLOWAY

Rules change; requirements met twice

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To meet EPA requirements, which were finalized in July, Environmental had to submit engineering reports, details and flow diagrams for all equipment associated with those product streams by Nov. 8. "If we did not meet the deadline, the law says we would have had to shut down the whole complex," Jacoby said.

The deadline was met, and met smoothly, because of cooperation of Engineering Support, Technical Support, Inspection and various units in Operations, Jacoby said.

"I cannot say enough for the cooperation," Jacoby emphasized. "We needed to prepare detailed flow diagrams, mechanical diagrams and structural integrity analysis. We had to define the structure and the material used in storage tank designs. We even had to tell what kind of external coating was used on the tanks."

Getting the details was not always easy. Some of the tanks involved are original refinery tanks dating back to 1929. One of the more amusing questions was if tank foundations could adequately support the tanks. "I would say the foundation could support those tanks. They have stood here for 50 years!" said Jacoby.

Details about existing structures which handle hazardous waste was not the only concern of the new application. It also addressed disposing of hazardous waste. "We had to develop detailed steps of closure plans and prove that Shell Oil Co. is financially able to properly handle the waste even if we shut down, which of course we're not," said Jacoby.

"We had to show that the company had enough money to adequately and properly close our hazardous waste facilities and

handle any 'left over' hazardous wastes. We had to document that Shell's assets are far greater than the cost, even under a worst case scenario, of permanently closing all of our hazardous wastes facilities and properly handling any hazardous wastes we generate," he said.

Under worst case scenarios the cost to close hazardous waste facilities and dispose of hazardous wastes generated in the complex is many millions of dollars. Each year the figure is adjusted for inflation and the application amended. A worst case

scenario assumes the company closes operations with full tanks of hazardous wastes and widespread contamination. It also assumes cleanup is compounded by severe weather, including flooding conditions.

"Staying current with increasingly more stringent EPA legislation, such as RCRA, will be a continuous process and an exciting challenge," said Jacoby.

The Environmental picture continues to have sequels -- stay tuned for further regulations.



PAPERWORK... Rob Jacoby, foreground, stands beside volumes of data prepared for RCRA permit B application, part two. Al Weaver, background, stands next to volumes of data prepared for RCRA permit B application, part one. Weaver coordinated the first application process due Dec. of 1984, while Jacoby coordinated the latest application process due this November.

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