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USPOSTAVA SUSTAVA UPRAVLJANJA ZAŠTITOM OKOLIŠA U INA MAZIVA ZAGREB

Sažetak

U INA Mazivima Zagreb odavno se prate putevi razvoja u zaštiti okoliša, što se poglavito očituje u organiziranoj provedbi programa stalnog nadzora i poboljšanja utjecaja na okoliš već kod izbora sirovina, opreme, tehnologije kao i tijekom proizvodnje, te kod izrade formulacija i korištenja proizvoda i davanja usluga.

Prošle su tri godine kako su INA Maziva Zagreb dobila certifikat za sukladnost sustava osiguranja kvalitete po normi ISO 9001. Kako bi se pokazala briga za okoliš, od kraja 1997. godine odlukom posloводства u Mazivima Zagreb pristupilo se izgradnji sustava upravljanja zaštitom okoliša prema međunarodnoj normi ISO 14001:1996. i time su INA Maziva Zagreb ušla u zasad uzak krug tvrtki u Hrvatskoj koje su shvatile potrebu uređenja tog područja i njihove koristi. Politikom kvalitete i zaštite okoliša izraženo je opredjeljenje da se koliko god je to moguće zaštititi okoliš od štetnog djelovanja i da se neprekidno radi na poboljšanjima, prepoznata je zakonska regulativa koja obvezuje INA Maziva Zagreb s obzirom na djelatnost kojom se bavi i na lokaciju - vodozaštitno područje na kojoj se nalazi. Utvrđene su odgovornosti i ovlasti, prepoznate su aktivnosti, proizvodi i procesi koji mogu imati značajan učinak na okoliš, određeni su ciljevi i zadaće zaštite okoliša, te programi za postizanje tih ciljeva. Prepoznate su moguće izvanredne situacije i pripremljeni su postupci za odziv, te određene osobe za unutrašnju i vanjsku komunikaciju.

Razvoj svijesti, stručnosti i osposobljavanje svih zaposlenih pri provođenju konkretnih mjera zaštite okoliša jedan je od vrlo važnih čimbenika u sustavu upravljanja zaštitom okoliša, jer okoliš čini cjelokupno okruženje u kojem se radi, uključujući zrak, vodu, zemlju, prirodne izvore, biljni svijet, životinjski svijet i ljude.

Ovaj sustav upravljanja usmjeren je ne samo na zadovoljavanje kupaca, već i na širi krug zainteresiranih strana, a to sve utječe na ugled i poslovanje poduzeća u cjelini.

UVOD

Suvremena civilizacija uništava prirodne resurse, tako da se dovodi u pitanje održavanje života u njegovim sadašnjim oblicima. Zbog toga je nužna dobro organizirana, učinkovita i kontinuirana politika zaštite okoliša. Ova se politika provodi kao preventivna, operativna i sanacijska. Pri uvođenju sustava upravljanja zaštitom okoliša po normi ISO 14000 potrebno je odgovoriti na sljedeća pitanja:

- Kako nacionalno zakonodavstvo utječe na gospodarstvo?
- Kako strategija zaštite okoliša djeluje na gospodarstvo?
- Kako norme ISO 9000/14000 utječu na gospodarenje?
- Kakvu edukaciju iz zaštite okoliša treba organizirati i provoditi?

Prema zahtjevima iz norme ISO 14001 izobrazbi je cilj učiniti zaposlenike na svim funkcijama i razinama u organizaciji svjesnima:

- a) značaja usklađenosti s politikom, procedurama i zahtjevima sustava upravljanja zaštitom okoliša;
- b) značajnih utjecaja na okoliš, postojećih ili potencijalnih, koji su rezultat njihovih radnih aktivnosti, te prednostima za okoliš ako se poboljša osobni način rada;
- c) njihove uloge i odgovornosti u ostvarivanju usklađenosti s politikom, procedurama i zahtjevima sustava upravljanja zaštitom okoliša uključujući zahtjeve pripravnosti i odziva na izvanredne događaje;
- d) potencijalnih posljedica u slučaju odstupanja od specificiranih radnih postupaka.

Odgovornost je nadležnih rukovoditelja da utvrđuju potrebna znanja osoblja za kvalitetno obavljanje poslova, kao i potrebnu izobrazbu dobavljača roba i usluga što specificiraju u svojim zahtjevima u postupku nabave.

INA Maziva Zagreb su prva u INI i među prvima u Hrvatskoj uvela i certificirala integrirani sustav osiguranja kvalitete i upravljanja zaštitom okoliša. Rezultat je to intenzivnog skoro dvogodišnjeg rada, čiju uspješnost su potvrdili prosuditelji certifikacijske kuće "Bureau Veritas" tijekom trodnevnog certifikacijskog pregleda. Integrirani sustavi kvalitete i zaštite okoliša u Mazivima Zagreb imaju puno opravdanje zbog manjih troškova izgradnje, dokumentacije, audita i certifikacije sustava.

Svako poduzeće pa tako i INA Maziva Zagreb imaju pet glavnih skupina zainteresiranih strana, a to su kupci, zaposlenici, vlasnici, dobavljači i društvo. Sustav kvalitete ponajprije je usmjeren na zadovoljavanje kupaca. Međutim, zahtjevi društva postaju sve stroži u odnosu na zdravstvene i sigurnosne uvjete na radnom mjestu, zaštitu okoliša i opću sigurnost. Stoga suvremeno poduzeće mora proširiti svoje pristupe kvaliteti odnosno kvalitetu usmjeriti na društvo i zajednicu u cjelini.

Politika kvalitete i zaštite okoliša

Uvođenje sustava osiguranja kvalitete u INA Maziva Zagreb prema normi ISO 9001 dovodi do boljeg i racionalnijeg upravljanja poslovanjem tvrtke i stvara uvjete za pružanje kvalitetnijih proizvoda i usluga prema zahtjevima kupca. Našu sadašnjost i budućnost zasnivamo na dugogodišnjem iskustvu i tradiciji proizvodnje visokokvalitetnih industrijskih maziva i srodnih proizvoda. Naš položaj na tržištu gradimo bliskim odnosom s našim dobavljačima i kupcima kroz neposredne i redovite kontakte. Izlazimo u susret različitim zahtjevima naših kupaca jer dajemo naglasak na vlastito znanje, koje omogućuje da proizvodimo proizvode prema potrebama praktične primjene. Naš položaj na tržištu određuju zaposleni kod kojih razvijamo specifični osjećaj pripadnosti tvrtki.

U proizvodnoj tehnologiji INA Maziva Zagreb već je dulji niz godina prisutan program smanjenja štetnog utjecaja na okoliš, i to s posebnim naglaskom na zaštitu voda i zraka, jer se nalazimo na vodozaštitnom području u blizini naselja. Uvođenje sustava upravljanja zaštitom okoliša prema normi ISO 14001 obvezuje INA Maziva Zagreb na stalnu kontrolu i kontinuirano poboljšanje utjecaja na okoliš tijekom proizvodnje, korištenjem proizvoda i davanjem usluga.

Politika prema okolišu obuhvaća:

- redovitu analizu aspekata okoliša;

- utvrđivanje značajnih aspekata i utjecaja na okoliš;
- poduzimanje odgovarajućih mjera za smanjenje onečišćenja okoliša unutar INA Maziva Zagreb i okoliša gdje se proizvodi koriste;
- stalno usklađivanje s važećim zakonima i provedbenim propisima.

Za ostvarenje navedenih namjera INA Maziva Zagreb će se usmjeriti na:

- smanjenje ispuštanja otpadnih tvari već kod njihovog nastanka;
- izbor sirovina i razvoj proizvoda manje štetnih za okoliš;
- uvođenje novih tehnologija s ciljem smanjenja negativnih utjecaja na okoliš, te potrošnje sirovina i prirodnih resursa;
- besprijekorno održavanje sredstava rada koja imaju utjecaj na okoliš;
- optimalizaciju korištenja energije i sirovina ponovnim korištenjem i/ili reciklažom tehnološkog otpada ili korištenih proizvoda;
- razvoj svijesti i osposobljavanje zaposlenih pri provođenju konkretnih mjera zaštite okoliša.

Uspjeh sustava osiguranja kvalitete i zaštite okoliša je sastavni dio općeg poslovnog uspjeha INA Maziva Zagreb. Upoznavanjem zaposlenika, kooperanata, dobavljača i korisnika gotovih proizvoda s politikom kvalitete i zaštite okoliša pružamo priliku da i oni, u okviru svojih aktivnosti, doprinose kvaliteti i zaštiti okoliša. Naš slogan glasi: **kvalitetan proizvod, zadovoljan kupac, zadovoljan zaposlenik, čist okoliš**. Svi zaposleni sudjeluju u primjeni sustava i kontinuirano ga unapređuju. Politika je dostupna javnosti.

Aspekti okoliša

INA Maziva Zagreb utječu na stanje okoliša posredno korištenjem gotovih proizvoda u primjeni i neposredno emisijama i ispuštanjima kao posljedicom tehnološkog procesa. Svjesni tih, kao i činjenice da su njezina postrojenja smještena na vodozaštitnom području, u Mazivima Zagreb se već dugo prate trendovi u zaštiti okoliša, a potpun nadzor nad svim aspektima koji mogu utjecati na stanje okoliša postignut je uspostavom i integriranjem sustava upravljanja zaštitom okoliša po normi ISO 14001. Procjena aspekata obuhvaća sve aktivnosti, proizvode ili usluge koje mogu djelovati na okoliš, na koje tvrtka može utjecati. Proces utvrđivanja značajnih aspekata okoliša vezanih za djelatnosti u Mazivima Zagreb razmatra:

- a) emisije u zrak
- b) emisije u vodu
- c) upravljanje otpadom
- d) onečišćenje tla
- e) uporabu sirovina i prirodnih dobara

f) ostala lokalna pitanja okoliša i zajednice i to kroz uobičajene uvjete, isključenja i uključenja kao i moguće značajne utjecaje vezane za izvanredne situacije.

Zakonski i ostali zahtjevi

Relevantni zakonski i drugi zahtjevi kojima podliježu djelatnosti, proizvodi ili usluge INA Maziva Zagreb, neizbježno utječu na sve procese unutar tvrtke, od djelatnosti proizvodnje, skladištenja, dispozicije otpada i dr., a ponekad direktno usmjeravaju i razvojne i investicijske planove. Norma ISO 14001 propisuje nadzor nad važećom legislativom s područja zaštite okoliša, kako bi se pravodobno reagiralo na bilo kakvo odstupanje od zakonskih i drugih zahtjeva.

Nadzor i mjerenje

Uspostavljen je postupak, a na temelju zakonskih i drugih zahtjeva, nadzora i mjerenja svih operacija i učinaka koje one stvaraju, kao i drugih aktivnosti koje mogu imati značajno djelovanje (pozitivno ili negativno) na okoliš. Procedura definira operacije koje treba nadgledati, parametre koje treba mjeriti, učestalost kalibracije opreme za praćenje (mjerenje), te limitacije ovih parametara u skladu s odgovarajućom zakonskom regulativom i drugim zahtjevima o zaštiti okoliša.

Ciljevi i zadaci

Ciljevi zaštite okoliša u Mazivima Zagreb usklađeni su s Politikom prema okolišu, te nužno odražavaju jasno određenje tvrtke prema kontinuiranom poboljšanju. Ciljevi obuhvaćaju sve aspekte koji imaju značajan utjecaj na okoliš, kao i druge zahtjeve koji mogu biti posljedica stajališta različitih zainteresiranih strana, od upravnih organa, nevladinih organizacija, javnosti, partnerskih tvrtki ili pojedinaca. Zadaci zaštite okoliša postavljaju se u svrhu dostizanja postavljenih ciljeva i obuhvaćaju konkretne okvire provođenja. Ciljevi i zadaci su realni i ostvarivi, poštujući tehnološke i financijske potencijale, na načelima održivog razvoja.

Ciljevi uključuju:

- smanjenje otpada i iskorištavanje resursa;
- smanjenje ili eliminaciju ispuštenih štetnih tvari;
- razvoj proizvoda s minimalnim štetnim utjecajem na okoliš;
- kontrolu utjecaja izvornih sirovina;
- minimaliziranje bilo kakvih štetnih utjecaja novoga razvoja;

- promicanje svijesti o zaštiti okoliša.

Napredak u ostvarenju nekog cilja mjeri se korištenjem pokazatelja stanja okoliša, pa je stoga potrebno definirati mjerljive pokazatelje, koji mogu poslužiti kao osnova za procjenu stanja okoliša.

Programi upravljanja zaštitom okoliša

Provedbom konkretnih programa zaštite okoliša omogućuje se postizanje postavljenih ciljeva i zadataka zaštite okoliša. Pojedini se programi realiziraju u određenim organizacijskim cjelinama ili na razini INA Maziva Zagreb. Izrada i uporaba jednog ili više programa ključni je čimbenik uspješne primjene sustava upravljanja okolišem. Program opisuje kako će se doseći ciljevi i zadaci tvrtke, uključujući rokove i osobne odgovornosti za provođenje zadataka i programa proizašlih iz ciljeva Politike prema okolišu. Program se može odnositi na pojedine djelatnosti tvrtke, a za nove razvojne programe predviđena je i procjena stanja okoliša prije, tijekom i nakon realizacije projekta. Programi sadržavaju:

- imenovane osobe odgovorne za ostvarenje ciljeva i zadataka na svim funkcijama i razinama u Mazivima Zagreb;
- sredstva i vremenske okvire za ostvarenje tih ciljeva.

Realizacija ostvarenja programa prati se na osnovi izvještaja nositelja zadataka, o čemu se izvješćuje Stručni kolegij i direktor INA Maziva Zagreb.

Tržište diktira razvoj

Razvoj mazivih ulja i masti tijesno je povezan s razvojem strojeva i vozila, pa je prirodno da se s njime usklađuje. Najnoviji trendovi u proizvodnji mazivih ulja i masti te u podmazivanju, u svijetu "diktata" industrije i prometa, pa i okolnosti na tržištu maziva, jesu: veća kvaliteta, bolja radna svojstva, duži vijek trajanja maziva uz veća opterećenja i više radne temperature te manje onečišćenje okoliša i ugrožavanje zdravlja ljudi.

I zagrebačka Maziva planiraju poboljšanja u kvaliteti postojećeg programa maziva i prilagodbu zahtjevima tržišta, što podrazumijeva nove formulacije, niže cijene, smanjivanje asortimana, nov pristup primjenskim svojstvima, a posebice zbrinjavanje rabljenih ulja, zauljenih voda i emulzija te rabljenog antifrizna, itd.

Isplativa obradba rabljenih ulja

Jedan od utvrđenih značajnih aspekata okoliša u sustavu upravljanja zaštitom okoliša su rabljena ulja, emulzije i antifriz te zauljene vode, čiji je prihvat od potrošača Ininih maziva utvrđen kao cilj, a organizacija njihova zbrinjavanja uključena u plan razvoja do 2007. godine kao jedan od 14 razvojnih projekata koji definiraju potpuno nove poslovne aktivnosti u Mazivima. Taj razvojni projekt je završen, a prihvat rabljenih ulja i zauljenih voda je od ove godine postao uobičajenom uslugom za potrošače Ininih maziva.

Za novu su djelatnost dobivena sva ovlaštenja od ovlaštenih organa - Državne uprave za zaštitu prirode i okoliša, koja je izdala suglasnost za obavljanje stručnih poslova zaštite okoliša u svezi s praćenjem stanja okoliša, te nakon očevida opreme, skadišnog prostora i uređaja, izdala i rješenje kojim su INA Maziva Zagreb postala ovlaštenim obrađivačem opasnog otpada. U tom "svojstvu" uključena su u projekt zbrinjavanja rabljenih ulja na razini cijele INE. Osobito je važno to što za novu djelatnost nisu bila potrebna nova ulaganja, već su se iskoristili raspoloživi resursi - ljudi, spremišni prostor i oprema. Osim imidža ekološke kuće, a time i komparativnih, marketinških prednosti u odnosu na konkurenciju, nova je djelatnost ubrzano iskazala pozitivne i vrlo dobre ekonomske efekte.

Pripravnost i odziv u izvanrednim situacijama

Utvrđene su mogućnosti pojavljivanja incidentnih situacija, te osigurana pripravnost svih raspoloživih sredstava, opreme i ljudi, kako bi se pravodobno reagiralo u takvim slučajevima. Postupci pripravnosti i odziva se primjenjuju u svim organizacijskim cjelinama INA Maziva Zagreb gdje su uočena mjesta mogućeg pojavljivanja izvanredne situacije, kao i u onim cjelinama koje su odgovorne za provođenje preventivnih i interventnih mjera zaštite.

S obzirom na postojeću zakonsku regulativu INA Maziva Zagreb su izradila Pravilnik o preventivnim mjerama i o postupanju u incidentnim situacijama kod zagađivanja voda, te Plan zaštite od požara i tehnološke eksplozije. Oba ova dokumenta u potpunosti pokrivaju zahtjeve norme ISO 14001 sadržane u ovoj točki, koji se odnose na utvrđivanje mogućnosti i odziva za slučaj izvanrednih situacija, te preventivno djelovanje i ublažavanje posljedica. Oba propisa razlikuju žurno izvješćivanje i završno izvješćivanje s analizom događaja. Zakonske obveze o pozivanju i obavješćivanju nadležnih

institucija su navedene u Pravilniku o preventivnim mjerama i o postupanju u incidentnim situacijama kod zagađivanja voda, te Planu zaštite od požara i tehnološke eksplozije.

Komunikacija

Cilj je održavati i razvijati primjerene oblike komuniciranja i izvješćivanja između različitih razina unutar INA Maziva Zagreb i izvan njih te omogućiti pristup svim zainteresiranim stranama pitanjima zaštite okoliša, pružiti vjerodostojne odgovore, te dokumentirati cjelokupnu komunikaciju. Komunikacija od najvišeg posloводства do najmanjih organizacijskih cjelina, i obrnuto, osigurava upoznavanje svih zaposlenika s Politikom prema okolišu, sa stupnjem njezinog ostvarivanja, te s eventualnim odstupanjima. Na slici 1 dat je dijagram tijeka unutrašnje komunikacije u Mazivima Zagreb.

Izvješćivanje prema vanjskim institucijama omogućuje redoviti nadzor procesa, proizvoda i usluga INA Maziva Zagreb koji imaju ili mogu imati negativan utjecaj na okoliš, te uvid u aktivnosti koje se poduzimaju s ciljem smanjenja takvog utjecaja. Jasnom i nedvosmislenom komunikacijom s inspeksijskim službama, lokalnim vlastima, javnosti i drugim zainteresiranim stranama, osigurava se status otvorenog i stručnog sugovornika, svjesnog vlastite odgovornosti prema okolišu. Ovakav pristup pouzdano jača ugled tvrtke na sve zahtjevnijem tržištu, na kojem briga za okoliš postaje značajna odrednica poslovanja. Preporukom, i kada je to moguće, obrazovanjem kupaca, distributera i javnosti, o sigurnoj primjeni, prijevozu, čuvanju i odlaganju dobavljenih proizvoda, osigurava se bolja zaštita okoliša i izvan INA Maziva Zagreb, čime se preuzima dio odgovornosti za cjelokupni tijek proizvoda, od sirovine do konačnog zbrinjavanja otpadnih tvari koje nastaju njegovom uporabom. Komunikacija prema kupcima se vodi preko Komercijalno-tehničkog servisa ili njihovim direktnim obraćanjem na adresu INA Maziva Zagreb. Upoznavanje dobavljača sa sustavom upravljanja zaštitom okoliša i politikom prema okolišu, obavlja se preko pomoćnika direktora za kvalitetu, u dogovoru sa Službom nabave.

Interne prosudbe sustava (Audit)

Dokumentirani sustav traži redovno obavljanje jednog posla koji nije ništa drugo nego stalni način komunikacije od zaposlenih prema rukovodstvu i obrnuto, a sve na osnovi objektivih dokaza. To je Interna prosudba. Preko nalaza provedenih internih prosudbi najviše rukovodstvo/direktor ima potpunu

informaciju o funkcioniranju sustava i prijedloge o načinu poboljšanja efikasnosti rada. Nalazi internih prosudbi razmatraju se na redovnoj Upravinoj ocjeni (Management review). Zaključci i mjere koje treba poduzeti za unapređenje poslovanja (što je rezultat Upravine ocjene), pretvoreno u konkretne zadatke, odgovor je rukovodstva i potvrda da su primjedbe internih prosudbi (i ne samo njih) uzete u obzir.

Korektivne i preventivne mjere

Izrađena je procedura osiguranja primjene korektivnih i preventivnih mjera kako bi se uklonio uzrok stvarne ili potencijalne neusklađenosti i time postigli vrijedni ciljevi u pogledu kvalitete i zaštite okoliša, sprečavanje onečišćavanja, a u skladu sa zahtjevima norme ISO 9001 i ISO 14001.

Ovim postupkom propisuje se:

- analiza svih neusklađenosti nastalih u svakoj fazi realizacije proizvoda i u svim aktivnostima i mjerama koje mogu imati značajan utjecaj na okoliš;
- analiza izvještaja postprodajnih aktivnosti i reklamacija kupaca;
- analiza pritužbi zainteresiranih strana s obzirom na aspekte okoliša;
- analiza zapisa internih i eksternih prosudbi, pregleda ugovora i pregleda poslovođenja;
- poduzimanje potrebnih korektivnih mjera kako bi se uklonili uzroci neusklađenosti i spriječilo ponavljanje neusklađenosti;
- iniciranje preventivnih koraka za rješavanje uočenih problema ovisno o procijenjenim rizicima, korištenjem različitih izvora informacija kako bi se eliminirao potencijalni uzrok neusklađenosti;
- ocjena provođenja i učinkovitosti korektivnih i preventivnih mjera,
- osiguranje prijenosa relevantne informacije o poduzetim mjerama poslovođenju radi pregleda;
- registracija promjena u dokumentaciji sustava kvalitete i zaštite okoliša.

Pregled sustava (Management review)

Poslovođenje u određenim u vremenskim razmacima koje samo odredi, ocjenjuje sustav kvalitete i zaštite okoliša. Temelj ove ocjene su rezultati eksternih i internih prosudbi, pregled reklamacija kupaca, rješavanja prijavljenih neusklađenosti, rezultati pokrenutih korektivnih i preventivnih mjera, pritužbe zainteresiranih strana s obzirom na zaštitu okoliša, pregledi u kojoj mjeri su postignuti opći i pojedinačni ciljevi izraženi u Politici kvalitete i zaštite okoliša.

Ocjena koju donosi poslovodstvo upućuje na moguću potrebu promjene politike, ciljeva ili drugih čimbenika sustava kvalitete i zaštite okoliša, s obzirom na pokazatelje iz prethodno obavljenih analiza rezultata, na nove okolnosti i opredjeljenja ka stalnom napretku.

Zaključak

Integriranjem sustava upravljanja zaštitom okoliša u postojeći sustav osiguranja kvalitete INA Maziva Zagreb su osigurala nadzor nad svim aspektima koji mogu utjecati na stanje okoliša. Sustavom su obuhvaćeni i razvojni programi koji govore o razvoju proizvoda manje štetnih za okoliš, zatim programi ušteda na energentima te programi koji proizlaze iz utvrđenih značajnih aspekata okoliša.

Trenutačno se razvijaju proizvodi manje štetni za okoliš i to iz područja emulzijskih sredstava za obradbu metala, iz područja zupčaničkih ulja, hidrauličkih ulja, ulja za automatske mjenjače, mazivih masti, antifrizi i ulja za građevinske oplate. Osim toga, INA Maziva Zagreb su uključena na razini INE u usvojen projekt zbrinjavanja rabljenih ulja i to kao ovlašteni obrađivač opasnog otpada, a imaju i suglasnost Državne uprave za zaštitu prirode i okoliša za obavljanje stručnih poslova zaštite okoliša u svezi praćenja stanja okoliša (monitoring). Na lokaciji INA Maziva Zagreb svi su čimbenici utjecaja na okoliš pod nadzorom, što je sada i službeno potvrđeno certificiranjem.

Nužno je i dalje pratiti svjetske trendove razvoja kvalitete i zaštite okoliša i stečena iskustva drugih, međutim svatko svoj put u kvalitetu mora naći sam, prilagoditi ga uvjetima u kojima radi i postojećim resursima a poglavito ljudskom potencijalu. Pri tome je važno imati na umu da je početak svake aktivnosti planiranje a mjerljivost ciljeva pretpostavka njezinog učinkovitog vođenja. Bitno je da se politika i ciljevi nedvosmisleno definiraju te da se transparentno povežu s ciljevima pojedinih organizacijskih jedinica i njihovim planovima aktivnosti, jer to daje realnu pretpostavku ostvarenja postavljenih ciljeva. Rad na unapređivanju i poboljšanju integriranog sustava kvalitete i zaštite okoliša u Mazivima Zagreb ima svoj neprekinuti kontinuitet kroz opredijeljenost poslovodstva za jedinstvenu koncepciju upravljanja svim procesima, kroz organizirani i disciplinirani timski rad, stalno ulaganje u ljude, u njihovu izobrazbu.

Slika 1: Dijagram tijeka unutrašnje komunikacije

Figure 1: Internal communication flow chart

policy
goals
environmental management system requirements
observed non-compliances

management

report to direct superior
assessment of environmental aspects
reporting of non-compliances

internal bulletins
training
audits
decisions/regulations

employees

observed non-compliances
remarks
suggestions

ESTABLISHMENT OF AN ENVIRONMENTAL PROTECTION MANAGEMENT SYSTEM AT INA MAZIVA ZAGREB

Abstract

INA Maziva Zagreb have been following environmental protection trends for a long time now. This is reflected in particular in a constant environmental monitoring and advancement system, starting with the choice of feeds, equipment, and technology, and continuing during production, development of formulations, product use, and service rendering.

It has been three years since INA Maziva Zagreb have won the Certificate of Compliance for the Quality Assurance System in accordance with the ISO 9001 standard. In order to show their concern for the environment, as of the end of 1997, upon a decision by the INA Maziva Zagreb Management, the establishment of an Environmental Protection Management System has begun, in accordance with the international ISO 14001:1996 standard. INA Maziva Zagreb have thus joined a for the time being narrow circle of Croatian companies aware of the need to regulate this particular area, as well as of its benefits. The Quality Assurance & Environmental Protection Policy reveals the intention of protecting the environment as much as possible against harmful effects, as well as achieving constant advancements in this respect. INA Maziva Zagreb are also aware of the binding legal regulations viewing their particular activity, and of the fact that they are located in a water-protected area. The responsibilities and authorities, as well as identified activities, products, and processes with possible considerable environmental impacts were determined. Environmental protection goals and objectives, and elaborated programmes for their achievement were set. Possible accidents were recognized, response procedures prepared, and those in charge of both internal and external communication identified.

Awareness raising and training of all employees in the undertaking of concrete environmental protection measures is one among the extremely important factors of an Environmental Protection Management System. The fact is that environment is

made up of the entire working surroundings, including air, water, soil, natural resources, flora, fauna, and people.

The Management System in question is oriented not only towards satisfying customers, but also towards a wider circle of interested parties. All this impacts the Company's reputation and business making as a whole.

Introduction

Modern civilization is destroying natural resources, and thus threatening life maintenance in its present form. That is why we need a well organized, efficient, and continuous environmental protection policy. The said policy is implemented as preventive, operational, and remedial. While introducing an Environmental Protection Management System according to the ISO 14000 standard, one must answer the following questions:

- How does national legislation impact economy?
- How does the Environmental Protection Strategy affect economy?
- How do the ISO 9000/14000 standards impact management?
- What kind of environmental protection training should be implemented?

According to the requirements of the ISO 14001 standard, the purpose of training is to make the employees performing various functions at all organizational levels aware of the following:

- a) the importance of co-ordination with the Environmental Protection Management System policy, procedures, and requirements,
- b) major environmental impacts, both existing and potential, resulting from their working activities, as well as environmental benefits of improving their own way of work,
- c) their role and responsibility in achieving compliance with the Environmental Protection Management System policy, procedures, and requirements, including accident preparedness and response,
- d) possible consequences of deviations from specified working procedures.

The responsibility of competent managers lies in the need to build up the knowledge necessary for the personnel to be able to perform its tasks with quality, as well as in the need for training the suppliers of goods and services according to specifications of their requests for supply procedures.

INA Maziva Zagreb were the first at INA, as well as among the first ones in Croatia, to introduce and certify an integrated Quality Assurance and Environmental Protection Management System. It is the result of an intense,

almost two-year work, the success of which was confirmed by the Bureau Veritas certification company auditors during a three-day certification inspection. The integrated Quality Assurance and Environmental Protection Management System at INA Maziva Zagreb is fully justified by lower costs incurred by such a System's introduction, documentation, audit, and certification.

Same as any other company, INA Maziva Zagreb, have five main groups of interested parties: buyers, employees, owners, suppliers, and society as a whole. The Quality Assurance System is primarily oriented towards achieving customer satisfaction. However, society's requirements are also becoming increasingly stringent when it comes to health- and safety-related working conditions, environmental protection, and general safety. That is why a modern company has to expand its approach to quality by orienting it towards the society and the community as a whole.

The quality assurance and environmental protection policy

The introduction of a Quality Assurance System according to the ISO 9001 standard at INA Maziva Zagreb leads to a better and more rational management of the Company's businesses, thus creating conditions necessary for offering better quality products and services, matching the customers' requirements. Both our present and future is based on a long-term experience and tradition in the production of high quality industrial lubricants and their related products. Our market position is built by close relations with our suppliers and buyers, through direct and regular contacts. We are prepared to meet our customers' various requirements, because the stress is put on our own know-how, enabling us to manufacture products according to practical use needs. Our market position is determined by our employees, in whom we are developing a special sense of company loyalty.

In the production technology of INA Maziva Zagreb, the programme of reducing harmful environmental impacts has been present for a number of years now, with a particular stress on the protection of waters and air, since we are located in a water-protected area, in the vicinity of a settlement. Through the introduction of an Environmental Protection Management System in accordance with the ISO 14001 standard, INA Maziva Zagreb have undertaken the commitment of constantly monitoring and advancing environmental impacts of their production, product use, and service rendering.

The environmental policy encompasses the following:

- regular analysis of environmental aspects;
- identification of significant environmental aspects and impacts;
- undertaking of suitable environmental pollution reduction measures both within INA Maziva Zagreb, and on the spots where its products are used;
- permanent co-ordination with valid acts and implemental regulations.

In order to accomplish what has thus been envisaged, INA Maziva Zagreb shall make efforts to:

- reduce the discharge of waste substances at their very generation;
- select less environmentally harmful feeds and develop less environmentally harmful products;
- introduce new technologies with the purpose of reducing harmful environmental impacts, consumption of feeds, and exploitation of natural resources;
- impeccably maintain the working equipment bearing environmental impacts;
- optimize the use of energy and feeds through the reuse and/or recycling of technological waste or used products;
- develop environmental awareness and train its employees in the undertaking of concrete environmental protection measures.

The success of the Quality Assurance and Environmental Protection Management System is an integral part of the Company's overall business success. By introducing our employees, contractors, suppliers, and finished product users into the Quality Assurance and Environmental Protection policy, we are offering them the possibility to make their own contribution to environmental protection and quality, within their specific areas of activity. Our motto is: ***good quality product, satisfied customer, satisfied employee, clean environment***. All employees are involved in the System's implementation, and are continuously advancing it. The policy is available to public.

Environmental aspects

INA Maziva Zagreb impact the environment indirectly, by using finished products in application, and directly, through emissions and discharges resulting from technological processes. Aware of all this, as well as of the fact that their plants are located in a water-protected area, have been following environmental protection trends for a long time now. A complete control over all the aspects that could impact the state of the environment has been achieved by establishing and incorporating an Environmental

Protection Management System in accordance with the international ISO 14001 standard. The estimation of aspects encompasses all activities, products, or services with possible environmental impacts which the Company may control. Identification of significant environmental aspects associated with the activities of INA Maziva Zagreb takes into account the following:

- a) air emissions
 - b) water emissions
 - c) waste management
 - d) soil pollution
 - e) use of feeds and natural resources
 - f) other local environmental and social issues -
- through the usual conditions, involvements and disengagements, as well as through the possible major impacts associated with emergency situations.

Legal and other requirements

Relevant legal and other requirements regulating the activities, products, or services of INA Maziva Zagreb inevitably impact all the Company's processes, from the activities associated with production, storage, waste disposal, etc., while they are sometimes also directly orienting development and investment plans. The ISO 14001 standard stipulates control over valid regulations from the area of environmental protection, in order to ensure timely response to any aberration from legal and other requirements.

Surveillance and measurement

A procedure has been established on the basis of legal and other requirements, surveillance, and measurement of all operations and their effects, as well as of other activities with possible major (positive or negative) environmental impacts. The procedure identifies operations to be surveilled, parameters to be measured, frequency of the monitoring (measuring) equipment calibration, as well as the said parameters' limits in compliance with relevant legal regulations and other environmental protection requirements.

Goals and tasks

Environmental protection goals at INA Maziva Zagreb have been co-ordinated with the Environmental Policy, and they inevitably reflect the Company's clear commitment to a constant advancement. The goals encompass all the aspects with considerable environmental impacts, as well as other possible requirements resulting from attitudes expressed by different

interested parties, administrative bodies, nongovernment organizations, the public, partner companies, or individuals. Environmental protection tasks are identified for the purpose of reaching the set goals, and they include a concrete implemental framework. The goals and tasks are realistic and feasible, respecting both technological and financial resources, based on sustainable development. They include:

- waste minimization and resource exploitation reduction;
- harmful substances discharge reduction or elimination;
- control of the original feeds' impact;
- minimization of any possible harmful impacts of further development;
- promotion of environmental protection awareness.

The success in the achievement of a given goal is measured by using the environmental condition indicators, which is why it is necessary to identify measurable indicators, that may serve as basis for evaluating the state of the environment.

Environmental protection management programmes

Implementation of concrete environmental protection programmes makes it possible to achieve the environmental protection goals and tasks set. Individual programmes are being implemented within certain organizational units, or at Company level. Elaboration and implementation of one or several programmes is the key factor of a successful application of the Environmental Protection Management System. The programme sets the ways of achieving the Company's goals and tasks, including deadlines and personal responsibilities for implementing tasks and programmes resulting from the Environmental Policy. The programme may regard the Company's individual activities, while new developmental programmes require environmental state assessment prior to, during, and after project implementation. The programmes encompass:

- competent persons responsible for the achievement of goals and tasks at all levels of the Company;
- means and time limits for achieving the said goals.

Programme implementation is monitored through reports supplied by Project Managers, informing the Company's Expert Board and its Manager.

The market dictates development

Development of lubricating oils and greases is closely associated with that of machinery and vehicles, which is why it is only natural to co-ordinate the two. The latest trends in the production of lubricating oils and greases, as

well as in lubrication in general, are globally dictated by industry and transportation. The circumstances on the lubricant market are thus as follows: Better quality, improved performances, longer lubricant service life under increased loads and higher operating temperatures, as well as reduced environmental pollution and human health threats. The Company intends to advance the quality of its existing programme and adapt itself to market requirements. This entails new formulations, lower prices, assortment reduction, new approach to application properties, and particularly the management of waste oils, oily water and emulsion, used engine coolant, etc.

Waste oil treatment that pays

One among the significant environmental aspects identified within the Environmental Protection Management System are waste oils, emulsions, engine coolant, and oily waters. Their takeover from the consumers of INA's lubricants has already been set as an objective, while the organization of their management has been included into the Development Plan by 2007, as one among 14 development projects setting the Company's entirely new business activities. The said development project has already been completed, while the takeover of used oils and oily waters has, as of this year, become a regular service offered to consumers of INA's lubricants.

All the necessary authorizations for the new activity have been obtained from the competent body, which is The State Directorate for Environmental Protection and Nature Conservation. The Directorate has issued its consent for the performance of expert tasks in the area of environmental protection associated with environmental state monitoring. After an inspection of the Company's equipment and storage space an Official Decision has been issued authorizing INA Maziva Zagreb for hazardous waste treatment. The project includes waste oil management at corporate INA level. It is particularly important to stress that the new activity requires no further investments, but that use has been made of the already available resources - human, storage, and equipment. Apart from having gained us the image of an environmentally aware company, and hence comparative marketing advantages with respect to our competition, the new activity has quickly produced some very good economic effects as well.

Preparedness and response to emergency situations

It has been established that accidents may occur, which is why all the necessary resources - both human and equipment - have been prepared for a timely response. Preparedness and response procedures are applied in all

organizational units of INA Maziva Zagreb where the sites of possible accidents have been identified, as well as in the units responsible for implementing both preventive and emergency protection measures. Bearing in mind the valid legal regulations, INA Maziva Zagreb have elaborated a Book of Rules on Preventive Measures and Response to Accidents Involving Water Pollution, as well as the Fire and Technological Explosion Protection Plan. Both of these documents are entirely consistent with the ISO 14001 standard requirements contained in the relevant item referring to the identification of response possibilities to accidents; preventive, and remedial measures. Both regulations differentiate emergency reports and final reports, including event analysis. Legal commitments referring to the information of competent bodies are contained in the Book of Rules on Preventive Measures and Response to Accidents Involving Water Pollution, as well as in the Fire and Technological Explosion Protection Plan.

Communication

The purpose is to develop and maintain suitable communication and information forms both within the Company's various levels, and outside of them, thus enabling access to all parties interested in environmental protection issues; offer authentic replies, and document the entire communication. Communication from the highest management positions to the lowest organizational units and vice versa enables the introduction of all employees into Environmental Policy, its implementation level, and possible aberrations from it. Figure 1 provides the internal communication flow chart at INA Maziva Zagreb. Reports to outside institutions enable regular monitoring of the Company's processes, products, and services with possible adverse environmental impacts, as well as provide an insight into activities undertaken for their reduction. A transparent and unambiguous communication with inspection bodies, local authorities, the public, and other interested parties, ensures us the status of an open and professional collocator, aware of its environmental responsibilities. Such an approach positively strengthens the Company's reputation on an increasingly demanding market, where environmental concerns are becoming an important business making feature. By providing recommendations, and, whenever possible, training for buyers, suppliers, and the public in the area of safe application, transport, storage, and disposal of used products, we are ensuring better environmental protection even outside the Company itself, thus taking over a part of the responsibility for the entire product flow: From the feed, to the

final management of waste substances generated by its use. Communication with the buyers is ensured through the Commercial and Technical Service, or through their direct contacting of the Company. The introduction of suppliers to the Environmental Protection Management System and Environmental Policy is achieved through the Assistant Quality Assurance Manager, in co-operation with the Supply Department.

Internal audits

A documented system requires constant communication between employees and management in both directions, based on objective evidence. These are internal audits. Through the results of internal audits, the highest management staff, the Manager himself receives a complete information on the system's functioning, as well as proposals for increasing efficiency. Internal audit results are considered in the scope of regular Management Reviews. Conclusions drawn and measures to be undertaken in order to advance the business making resulting from managerial decisions expressed in the form of concrete tasks is the Management's response, as well as the proof that it has taken the internal audit remarks and not only them into consideration.

Corrective and preventive measures

A procedure has been drawn up for ensuring corrective and preventive measures, in order to eliminate the causes of real or potential non-compliances, thus achieving beneficial environmental quality and protection, as well as pollution prevention goals, in compliance with the ISO 9001 and ISO 14001 standards' requirements. The said procedure sets the following:

- analysis of all non-compliances appearing in any phase of product realization, as well as in all activities and operations with possible major environmental impacts;
- analysis of reports referring to post-sales activities and customer complaints;
- analysis of remarks by the interested parties with regard to environmental aspects;
- analysis of records referring to both internal and external audits, agreement reviews, and management reviews.
- undertaking of the necessary corrective measures, in order to eliminate the causes of non-compliances and prevent their repeating;
- undertaking of preventive steps for resolving the problems observed, depending on the assessed risks, by using different sources of information in order to avoid possible non-compliance causes;

- evaluation of the corrective and preventive measures' implementation and efficiency;
- ensuring communication of relevant information on the measures undertaken to the Management for review;
- registration of changes in the Quality Assurance & Environmental Protection System documentation.

Management review

Within specific intervals set by it, the Management evaluates the Quality Assurance & Environmental Protection System. The evaluation is based on the results of both internal and external audits, review of customer complaints, resolving of reported non-compliances, results of undertaken corrective and preventive measures, complaints of interested parties regarding environmental protection, review of the Quality Assurance & Environmental Protection Policy goals achieved. The evaluation performed by the Management points to a possible need to change the policy, goals, or other factors of the Quality Assurance & Environmental Protection System, given the former results analyses, new circumstances, and orientation towards constant advancement.

CONCLUSION

By incorporating the Environmental Protection Management System into the existing Quality Assurance System, INA Maziva Zagreb have ensured control over all aspects that may impact the state of the environment. The System also encompasses development programmes aiming at developing less environmentally harmful products and achieving energy savings, as well as programmes resulting from the important environmental aspects that have been assessed.

Less environmentally harmful products are currently being developed in the area of metalworking emulsions, gear oils, hydraulic oils, automatic transmission oils, lubricating greases, engine coolant, and mould oils. Apart from that, INA Maziva Zagreb are involved in a waste oils management project at corporate (INA) level, and, as such, authorized for hazardous waste treatment, while they also have the consent of the State Directorate for Environmental Protection and Nature Conservation for environmental state monitoring. All the environmental impact factors on the location of INA Maziva Zagreb are currently under surveillance, as substantiated by certification.

It is necessary to keep on following global Quality Assurance and environmental protection trends, as well as experiences gathered by others. However, everyone must find his own way towards achieving quality, adapting it to his own operating conditions and available resources, particularly those human. It is important to bear in mind in the process that every activity begins by planning, while the measurability of its objectives ensures efficient management. The policy and goals must be clearly set and associated with the goals of other organizational units and their activity plans, as a precondition of their achievement. Advancement and improvement of the integrated Quality Assurance and Environmental Protection Management System at INA Maziva Zagreb are continuing, owing to its Management's orientation towards uniform management of all processes, through organized and disciplined team work and permanent investments into human resources, into their training.

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ključne riječi:

351.777 Sustav upravljanje zaštitom okoliša,
upravno-pravni
614.7 Zagađivanje i zaštita okoliša
658.56 Sustav upravljanja kvalitetom (HRN
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